Microbac

Laboratory Report Number: L12010767

Mark Lyon
Environmental Waste Solutions
2440 Louisiana Blvd
Albuquerque, NM 87110

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact:
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I certify that all test results meet all of the requirements of the DoD QSM and other applicable contract terms and conditions. Any exceptions are attached to this cover page or addressed in the method narratives presented in the report. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories, DoD ELAP certification number 2936.01. The reported results are related only to the samples analyzed as received.

This report was certified on February 10 2012

David Vandenberg – Managing Director

State of Origin: NM
Accrediting Authority: N/A ID:N/A
QAPP: DOD Ver 4.1

Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

There were no discrepancies.

Discrepancy	Resolution

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #
0016953	H	4.0		1002241144060004575000874824307407

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct perservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	Yes
12	Were VOA samples free of headspace (less than 6mm)?	NA

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Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
MPL-21-0112-1	L12010767-01	01/27/2012 14:45	01/28/2012 08:46
MPL-21-0112-MS	L12010767-02	01/27/2012 14:45	01/28/2012 08:46
MPL-21-0112-MSD	L12010767-03	01/27/2012 14:45	01/28/2012 08:46

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL-21-0112-1	**Prep Method:**	3005A	**Prep Date:**	02/01/2012 06:13
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	02/07/2012 08:55
Workgroup #:	WG388487	**Analyst:**	EDL	**Run Date:**	02/07/2012 10:37
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	T2.020712.103731
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7		U	0.00200	0.00100
Calcium, Total	7440-70-2	35.5		0.200	0.100
Magnesium, Total	7439-95-4	5.32		0.500	0.250
Manganese, Total	7439-96-5		U	0.0100	0.00500
Potassium, Total	7440-09-7	2.28		1.00	0.500
Sodium, Total	7440-23-5	21.8		0.500	0.250
Tin, Total	7440-31-5		U	0.500	0.250
Vanadium, Total	7440-62-2	0.00833	J	0.0100	0.00500
Zinc, Total	7440-66-6	0.0227		0.0200	0.0100

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	ELAN-ICP
Client ID:	MPL-21-0112-1	**Prep Method:**	3015	**Prep Date:**	01/31/2012 11:34
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	01/31/2012 10:51
Workgroup #:	WG388420	**Analyst:**	JYH	**Run Date:**	01/31/2012 17:35
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EL.013112.173502
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00250		0.00100	0.000500
Barium, Total	7440-39-3	0.0567		0.00300	0.00150
Cadmium, Total	7440-43-9		U	0.000600	0.000300
Chromium, Total	7440-47-3	0.00479		0.00200	0.00100
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Copper, Total	7440-50-8	0.00132	J	0.00200	0.00100
Lead, Total	7439-92-1		U	0.00100	0.000500
Nickel, Total	7440-02-0		U	0.00400	0.00200
Selenium, Total	7782-49-2	0.00120		0.00100	0.000500
Silver, Total	7440-22-4		U	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.000100

J	Estimated value ; the analyte concentration was less than the LOQ.

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL-21-0112-1	**Prep Method:**	7470A	**Prep Date:**	01/31/2012 10:10
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/01/2012 12:42
Workgroup #:	WG388471	**Analyst:**	PDM	**Run Date:**	02/01/2012 13:23
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	HY.020112.132301
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6		U	0.000200	0.000100
U	Analyte was not detected. The concentration is below the reported LOD.				

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL-21-0112-1	**Prep Method:**	300.0	**Prep Date:**	01/31/2012 16:00
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	12/21/2011 13:49
Workgroup #:	WG388430	**Analyst:**	JBK	**Run Date:**	01/31/2012 21:31
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	I20131122131.21
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	12.2		0.200	0.100
Fluoride	16984-48-8	0.312		0.200	0.100
Sulfate	14808-79-8	45.0		1.00	0.500

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	ORION-4STAR
Client ID:	MPL-21-0112-1	**Prep Method:**	9040C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9040C	**Cal Date:**	
Workgroup #:	WG388300	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:25
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	OS12013112270201
Sample Tag:		**Units:**	UNITS		

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	7.80		0.000	0.000

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:08
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.035
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Carbonate (as CaCO3)			U	20.0	10.0

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:08
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.035
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Bicarbonate (as CaCO3)		101		20.0	10.0

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:08
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.035
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)		101		20.0	10.0

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-1	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	01/30/2012 15:15
Workgroup #:	WG388302	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:00
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301800-17
Sample Tag:	D01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-1	**Prep Method:**	SM4500-CN-C,G	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G	**Cal Date:**	02/03/2012 13:25
Workgroup #:	WG388635	**Analyst:**	JBK	**Run Date:**	02/03/2012 14:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1202031410-06
Sample Tag:	CN-A	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-1	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	01/30/2012 15:15
Workgroup #:	WG388303	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301830-10
Sample Tag:	D02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	YSI-32
Client ID:	MPL-21-0112-1	**Prep Method:**	120.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	120.1	**Cal Date:**	
Workgroup #:	WG388884	**Analyst:**	DLP	**Run Date:**	02/06/2012 14:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	32.1202061430-03
Sample Tag:		**Units:**	umhos/cm		

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		328		1.00	0.500

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-1	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	01/31/2012 11:41
Workgroup #:	WG388370	**Analyst:**	DIH	**Run Date:**	01/31/2012 12:01
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131002.028
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7	0.0823	J	0.100	0.0500

J	Estimated value ; the analyte concentration was less than the LOQ.

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-1	**Prep Method:**	353.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	353.2	**Cal Date:**	01/30/2012 09:15
Workgroup #:	WG388287	**Analyst:**	DIH	**Run Date:**	01/30/2012 14:40
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC12013112384201
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		1.52		0.0500	0.0250

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-1	**Prep Method:**	SM4500-P-E-20th	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-20th	**Cal Date:**	12/21/2011 14:35
Workgroup #:	WG388301	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201290930-05
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2		U	0.0500	0.0250

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-1	**Prep Method:**	160.1/SM2540C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.1	**Cal Date:**	
Workgroup #:	WG388361	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:48
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311048-12
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		208		20.0	10.0

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	MPL-21-0112-1	**Prep Method:**	415.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	415.1	**Cal Date:**	12/06/2011 09:40
Workgroup #:	WG388455	**Analyst:**	JBK	**Run Date:**	02/01/2012 11:33
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	TC02012012.008
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon		1.53		1.00	0.500

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-1	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.2	**Cal Date:**	
Workgroup #:	WG388360	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:46
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311046-21
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids			U	5.00	2.50

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL-21-0112-MS	**Prep Method:**	3005A	**Prep Date:**	02/01/2012 06:13
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	02/07/2012 08:55
Workgroup #:	WG388487	**Analyst:**	EDL	**Run Date:**	02/07/2012 10:40
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	T2.020712.104051
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7	0.0249		0.00200	0.00100
Calcium, Total	7440-70-2	39.3		0.200	0.100
Magnesium, Total	7439-95-4	10.0		0.500	0.250
Manganese, Total	7439-96-5	0.243		0.0100	0.00500
Potassium, Total	7440-09-7	26.8		1.00	0.500
Sodium, Total	7440-23-5	46.5		0.500	0.250
Tin, Total	7440-31-5	0.524		0.500	0.250
Vanadium, Total	7440-62-2	0.507		0.0100	0.00500
Zinc, Total	7440-66-6	0.509		0.0200	0.0100

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	ELAN-ICP
Client ID:	MPL-21-0112-MS	**Prep Method:**	3015	**Prep Date:**	01/31/2012 11:34
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	01/31/2012 10:51
Workgroup #:	WG388420	**Analyst:**	JYH	**Run Date:**	01/31/2012 17:42
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EL.013112.174250
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0	0.0633		0.00100	0.000500
Arsenic, Total	7440-38-2	0.0635		0.00100	0.000500
Barium, Total	7440-39-3	0.117		0.00300	0.00150
Cadmium, Total	7440-43-9	0.0616		0.000600	0.000300
Chromium, Total	7440-47-3	0.0680		0.00200	0.00100
Cobalt, Total	7440-48-4	0.0633		0.00100	0.000500

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Copper, Total	7440-50-8	0.0641		0.00200	0.00100
Lead, Total	7439-92-1	0.0663		0.00100	0.000500
Nickel, Total	7440-02-0	0.0628		0.00400	0.00200
Selenium, Total	7782-49-2	0.0564		0.00100	0.000500
Silver, Total	7440-22-4	0.0651		0.00100	0.000500
Thallium, Total	7440-28-0	0.0649		0.000200	0.000100

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL-21-0112-MS	**Prep Method:**	7470A	**Prep Date:**	01/31/2012 10:10
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/01/2012 12:42
Workgroup #:	WG388471	**Analyst:**	PDM	**Run Date:**	02/01/2012 13:26
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	HY.020112.132638
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6	0.00488		0.000222	0.000111

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL-21-0112-MS	**Prep Method:**	300.0	**Prep Date:**	01/31/2012 16:00
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	12/21/2011 13:49
Workgroup #:	WG388430	**Analyst:**	JBK	**Run Date:**	01/31/2012 22:08
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	I20131122208.23
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	19.1		0.200	0.100
Fluoride	16984-48-8	7.52		0.200	0.100
Sulfate	14808-79-8	86.5		1.00	0.500

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	ORION-4STAR
Client ID:	MPL-21-0112-MS	**Prep Method:**	9040C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9040C	**Cal Date:**	
Workgroup #:	WG388300	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:25
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	OS12013112270501
Sample Tag:		**Units:**	UNITS		

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	7.76		0.000	0.000

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MS	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:09
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.036
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)		187		20.0	10.0

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MS	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:09
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.036
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Carbonate (as CaCO3)			U	20.0	10.0

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MS	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:09
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.036
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Bicarbonate (as CaCO3)		187		20.0	10.0

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MS	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	01/30/2012 15:00
Workgroup #:	WG388303	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301830-11
Sample Tag:	D02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5	0.194		0.0100	0.00500

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MS	**Prep Method:**	SM4500-CN-C,G	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G	**Cal Date:**	02/03/2012 13:25
Workgroup #:	WG388635	**Analyst:**	JBK	**Run Date:**	02/03/2012 14:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1202031410-07
Sample Tag:	CN-A	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MS	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	01/30/2012 15:00
Workgroup #:	WG388302	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:00
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301800-18
Sample Tag:	D01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.202		0.0100	0.00500

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	YSI-32
Client ID:	MPL-21-0112-MS	**Prep Method:**	120.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	120.1	**Cal Date:**	
Workgroup #:	WG388884	**Analyst:**	DLP	**Run Date:**	02/06/2012 14:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	32.1202061430-04
Sample Tag:		**Units:**	umhos/cm		

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		326		1.00	0.500

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MS	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	01/31/2012 11:41
Workgroup #:	WG388370	**Analyst:**	DIH	**Run Date:**	01/31/2012 12:01
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131002.029
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7	0.927		0.100	0.0500

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MS	**Prep Method:**	353.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	353.2	**Cal Date:**	01/30/2012 09:15
Workgroup #:	WG388287	**Analyst:**	DIH	**Run Date:**	01/30/2012 14:40
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC12013112384501
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		1.90		0.0500	0.0250

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MS	**Prep Method:**	SM4500-P-E-20th	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-20th	**Cal Date:**	12/21/2011 14:35
Workgroup #:	WG388301	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201290930-06
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2	0.366		0.0500	0.0250

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-MS	**Prep Method:**	160.1/SM2540C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.1	**Cal Date:**	
Workgroup #:	WG388361	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:48
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311048-13
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		718		20.0	10.0

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	MPL-21-0112-MS	**Prep Method:**	415.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	415.1	**Cal Date:**	12/06/2011 09:40
Workgroup #:	WG388455	**Analyst:**	JBK	**Run Date:**	02/01/2012 11:58
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	TC02012012.010
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon		11.4		1.00	0.500

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-MS	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.2	**Cal Date:**	
Workgroup #:	WG388360	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:46
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311046-22
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids		26.0		5.00	2.50

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL-21-0112-MSD	**Prep Method:**	3005A	**Prep Date:**	02/01/2012 06:13
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	02/07/2012 08:55
Workgroup #:	WG388487	**Analyst:**	EDL	**Run Date:**	02/07/2012 10:44
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	T2.020712.104406
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7	0.0238		0.00200	0.00100
Calcium, Total	7440-70-2	38.9		0.200	0.100
Magnesium, Total	7439-95-4	10.0		0.500	0.250
Manganese, Total	7439-96-5	0.246		0.0100	0.00500
Potassium, Total	7440-09-7	27.0		1.00	0.500
Sodium, Total	7440-23-5	46.3		0.500	0.250
Tin, Total	7440-31-5	0.530		0.500	0.250
Vanadium, Total	7440-62-2	0.483		0.0100	0.00500
Zinc, Total	7440-66-6	0.510		0.0200	0.0100

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	ELAN-ICP
Client ID:	MPL-21-0112-MSD	**Prep Method:**	3015	**Prep Date:**	01/31/2012 11:34
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	01/31/2012 10:51
Workgroup #:	WG388420	**Analyst:**	JYH	**Run Date:**	01/31/2012 17:50
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EL.013112.175036
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0	0.0628		0.00100	0.000500
Arsenic, Total	7440-38-2	0.0646		0.00100	0.000500
Barium, Total	7440-39-3	0.121		0.00300	0.00150
Cadmium, Total	7440-43-9	0.0589		0.000600	0.000300
Chromium, Total	7440-47-3	0.0700		0.00200	0.00100
Cobalt, Total	7440-48-4	0.0636		0.00100	0.000500

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Copper, Total	7440-50-8	0.217		0.00200	0.00100
Lead, Total	7439-92-1	0.0672		0.00100	0.000500
Nickel, Total	7440-02-0	0.0646		0.00400	0.00200
Selenium, Total	7782-49-2	0.0579		0.00100	0.000500
Silver, Total	7440-22-4	0.0623		0.00100	0.000500
Thallium, Total	7440-28-0	0.0662		0.000200	0.000100

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL-21-0112-MSD	**Prep Method:**	7470A	**Prep Date:**	01/31/2012 10:10
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/01/2012 12:42
Workgroup #:	WG388471	**Analyst:**	PDM	**Run Date:**	02/01/2012 13:28
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	HY.020112.132825
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6	0.00484		0.000222	0.000111

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL-21-0112-MSD	**Prep Method:**	300.0	**Prep Date:**	01/31/2012 16:00
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	12/21/2011 13:49
Workgroup #:	WG388430	**Analyst:**	JBK	**Run Date:**	01/31/2012 22:26
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	I20131122226.24
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	19.1		0.200	0.100
Fluoride	16984-48-8	7.48		0.200	0.100
Sulfate	14808-79-8	86.1		1.00	0.500

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	ORION-4STAR
Client ID:	MPL-21-0112-MSD	**Prep Method:**	9040C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9040C	**Cal Date:**	
Workgroup #:	WG388300	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:25
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	OS12013112270901
Sample Tag:		**Units:**	UNITS		

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	7.77		0.000	0.000

Certificate of Analysis

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MSD	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.037
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)		187		20.0	10.0

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MSD	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.037
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Carbonate (as CaCO3)			U	20.0	10.0

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MSD	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.037
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Bicarbonate (as CaCO3)		187		20.0	10.0

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MSD	**Prep Method:**	SM4500-CN-C,G	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G	**Cal Date:**	02/03/2012 13:25
Workgroup #:	WG388635	**Analyst:**	JBK	**Run Date:**	02/03/2012 14:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1202031410-08
Sample Tag:	CN-A	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MSD	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	01/30/2012 15:00
Workgroup #:	WG388302	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:00
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301800-19
Sample Tag:	D01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.193		0.0100	0.00500

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MSD	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	01/30/2012 15:00
Workgroup #:	WG388303	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301830-12
Sample Tag:	D02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5	0.192		0.0100	0.00500

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	YSI-32
Client ID:	MPL-21-0112-MSD	**Prep Method:**	120.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	120.1	**Cal Date:**	
Workgroup #:	WG388884	**Analyst:**	DLP	**Run Date:**	02/06/2012 14:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	32.1202061430-05
Sample Tag:		**Units:**	umhos/cm		

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		332		1.00	0.500

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MSD	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	01/31/2012 11:41
Workgroup #:	WG388370	**Analyst:**	DIH	**Run Date:**	01/31/2012 12:04
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131002.032
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7	0.901		0.100	0.0500

Certificate of Analysis

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MSD	**Prep Method:**	353.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	353.2	**Cal Date:**	01/30/2012 09:15
Workgroup #:	WG388287	**Analyst:**	DIH	**Run Date:**	01/30/2012 14:40
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC12013112391801
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		2.03		0.0500	0.0250

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MSD	**Prep Method:**	SM4500-P-E-20th	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-20th	**Cal Date:**	12/21/2011 14:35
Workgroup #:	WG388301	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201290930-07
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2	0.378		0.0500	0.0250

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-MSD	**Prep Method:**	160.1/SM2540C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.1	**Cal Date:**	
Workgroup #:	WG388361	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:48
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311048-14
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		720		20.0	10.0

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	MPL-21-0112-MSD	**Prep Method:**	415.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	415.1	**Cal Date:**	12/06/2011 09:40
Workgroup #:	WG388455	**Analyst:**	JBK	**Run Date:**	02/01/2012 12:11
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	TC02012012.011
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon		11.3		1.00	0.500

Certificate of Analysis

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-MSD	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.2	**Cal Date:**	
Workgroup #:	WG388360	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:46
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311046-23
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids		26.0		5.00	2.50

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2.0 Full Sample Data Package

2.1 Metals Data

2.1.1 Metals I C P Data

2.1.1.1 Summary Data

Login Number: L12010767
Department: Metals
Analyst: Erin Long

METHOD

Preparation: SW-846 3005

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG388487 - All acceptance criteria were met.

Matrix Spikes: WG388487 - Sample 01 was chosen by the client for MS/MSD analysis. Samples 02(MS) and 03(MSD) yielded noncompliant recoveries for calcium.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 41834
Approved By: Maren Beery
Maren Beery

Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL-21-0112-1	**Prep Method:**	3005A	**Prep Date:**	02/01/2012 06:13
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	02/07/2012 08:55
Workgroup #:	WG388487	**Analyst:**	EDL	**Run Date:**	02/07/2012 10:37
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	T2.020712.103731
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7		U	0.00200	0.00100
Calcium, Total	7440-70-2	35.5		0.200	0.100
Magnesium, Total	7439-95-4	5.32		0.500	0.250
Manganese, Total	7439-96-5		U	0.0100	0.00500
Potassium, Total	7440-09-7	2.28		1.00	0.500
Sodium, Total	7440-23-5	21.8		0.500	0.250
Tin, Total	7440-31-5		U	0.500	0.250
Vanadium, Total	7440-62-2	0.00833	J	0.0100	0.00500
Zinc, Total	7440-66-6	0.0227		0.0200	0.0100

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL-21-0112-MS	**Prep Method:**	3005A	**Prep Date:**	02/01/2012 06:13
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	02/07/2012 08:55
Workgroup #:	WG388487	**Analyst:**	EDL	**Run Date:**	02/07/2012 10:40
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	T2.020712.104051
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7	0.0249		0.00200	0.00100
Calcium, Total	7440-70-2	39.3		0.200	0.100
Magnesium, Total	7439-95-4	10.0		0.500	0.250
Manganese, Total	7439-96-5	0.243		0.0100	0.00500
Potassium, Total	7440-09-7	26.8		1.00	0.500
Sodium, Total	7440-23-5	46.5		0.500	0.250
Tin, Total	7440-31-5	0.524		0.500	0.250
Vanadium, Total	7440-62-2	0.507		0.0100	0.00500
Zinc, Total	7440-66-6	0.509		0.0200	0.0100

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL-21-0112-MSD	**Prep Method:**	3005A	**Prep Date:**	02/01/2012 06:13
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	02/07/2012 08:55
Workgroup #:	WG388487	**Analyst:**	EDL	**Run Date:**	02/07/2012 10:44
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	T2.020712.104406
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7	0.0238		0.00200	0.00100
Calcium, Total	7440-70-2	38.9		0.200	0.100
Magnesium, Total	7439-95-4	10.0		0.500	0.250
Manganese, Total	7439-96-5	0.246		0.0100	0.00500
Potassium, Total	7440-09-7	27.0		1.00	0.500
Sodium, Total	7440-23-5	46.3		0.500	0.250
Tin, Total	7440-31-5	0.530		0.500	0.250
Vanadium, Total	7440-62-2	0.483		0.0100	0.00500
Zinc, Total	7440-66-6	0.510		0.0200	0.0100

2.1.1.2 QC Summary Data

Example 6010 Calculations
Thermo Scientific iCAP 6500

1.0 Initial Calibration (ICAL) Parameters
For a multi-point calibration, the system performs linear regression from data consisting of a blank and four standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system in ug/mL (ppm)	0.1
Vf = Final volume (mL)	50
Vi = Initial volume (mL)	50
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in ug/mL (mg/L)	0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (mg/L) (ppm)	0.1
Vf = Final volume (mL)	50
Vi = Initial weight (g)	1
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in ug/g (mg/kg)	5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:	**Example:**
Cx = Concentration calculated as received (wet basis)	5
Px = Percent solids of sample (%wt)	80
$Cdry$ = Concentration calculated as dry weight (mg/kg)	6.25

Microbac Laboratories Inc.
Metals Digest Log

Workgroup: WG388441
Analyst: REK
Spike Analyst: REK
Method: 3005A
Run Date: 02/01/2012 06:13
Hotblock Start Temp: 94.8 @ 05:30
Hotblock End Temp: 95.1 @ 09:30

SOP: ME401 Revison 14
Spike Solution: STD49450
Spike Witness: VC
HCL Lot #: COA15847
Digestion Tubes Lot #: COA15882
HNO3 Lot #: COA15925

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Spike Amount	Due Date
1	WG388441-02	BLANK	1	50 mL	50 mL		
2	WG388441-03	LCS	1	50 mL	50 mL	5 mL	
3	L12010515-09	SAMP	1	50 mL	50 mL		01/27/12
4	WG388441-01	REF	1	50 mL	50 mL		
5	L12010767-01	RS01	1	50 mL	50 mL		02/10/12
6	WG388441-04	MS	1	50 mL	50 mL	5 mL	
7	L12010767-02	MS01	1	50 mL	50 mL	5 mL	02/10/12
8	WG388441-05	MSD	1	50 mL	50 mL	5 mL	
9	L12010767-03	SD01	1	50 mL	50 mL	5 mL	02/10/12
10	L12010798-01	SAMP	1	50 mL	50 mL		02/10/12
11	L12010799-01	SAMP	1	50 mL	50 mL		02/10/12
12	L12010800-01	SAMP	1	50 mL	50 mL		02/10/12
13	L12010813-01	SAMP	1	50 mL	50 mL		02/10/12
14	L12010813-02	SAMP	1	50 mL	50 mL		02/10/12
15	L12010813-03	SAMP	1	50 mL	50 mL		02/10/12
16	L12010813-04	SAMP	1	50 mL	50 mL		02/10/12
17	L12010813-05	SAMP	1	50 mL	50 mL		02/10/12
18	L12010813-06	SAMP	1	50 mL	50 mL		02/10/12
19	L12010813-07	SAMP	1	50 mL	50 mL		02/10/12
20	L12010813-08	SAMP	1	50 mL	50 mL		02/10/12
21	L12010813-09	SAMP	1	50 mL	50 mL		02/10/12
22	L12010813-10	SAMP	1	50 mL	50 mL		02/10/12
23	L12010813-11	SAMP	1	50 mL	50 mL		02/10/12
24	L12010813-12	SAMP	1	50 mL	50 mL		02/10/12
25	L12010824-01	SAMP	1	50 mL	50 mL		02/10/12
26	L12010824-02	SAMP	1	50 mL	50 mL		02/10/12
27	L12010824-03	SAMP	1	50 mL	50 mL		02/10/12

Analyst: [signature]

Reviewer: [signature]

HB_DIG - Modified 09/30/2009
PDF ID: 2295505
Report generated: 02/01/2012 09:38

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 020712T2.1R.TXT
Analyst1: EDL Analyst2: N/A
Method: 6010 SOP: ME600G Rev: 2
Maintenance Log ID: 40536

Calibration Std: STD49884 ICV Std: STD49885 Post Spike: STD49449
ICSA: STD49701 ICSAB: STD49804 Int. Std: STD49870
CCV: STD49883 LLCCV:

Workgroups: 388487, 388719, 388773, 388881, 388967, 388971

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.020712.084142	WG388943-01	Calibration Point		1		02/07/12 08:41
2	T2.020712.084508	WG388943-02	Calibration Point		1		02/07/12 08:45
3	T2.020712.084836	WG388943-03	Calibration Point		1		02/07/12 08:48
4	T2.020712.085202	WG388943-04	Calibration Point		1		02/07/12 08:52
5	T2.020712.085517	WG388943-05	Calibration Point		1		02/07/12 08:55
6	T2.020712.085836	WG388943-06	Initial Calibration Verification		1		02/07/12 08:58
7	T2.020712.090150	WG388943-07	Initial Calib Blank		1		02/07/12 09:01
8	T2.020712.090517	WG388943-08	Low Level Initial Calibration V		1		02/07/12 09:05
9	T2.020712.090842	WG388943-09	Interference Check		1		02/07/12 09:08
10	T2.020712.092647	WG388943-10	Interference Check		1		02/07/12 09:26
11	T2.020712.092955	WG388943-11	Low Level Initial Calibration V		1		02/07/12 09:29
12	T2.020712.093327	WG388943-12	CCV		1		02/07/12 09:33
13	T2.020712.093644	WG388943-13	CCB		1		02/07/12 09:36
14	T2.020712.102033	WG388441-02	Method/Prep Blank	50/50	1		02/07/12 10:20
15	T2.020712.102358	WG388441-03	Laboratory Control S	50/50	1		02/07/12 10:23
16	T2.020712.102715	L12010515-09	P204-775	50/50	1		02/07/12 10:27
17	T2.020712.103040	WG388487-03	Serial Dilution		5	L12010515-09	02/07/12 10:30
18	T2.020712.103405	WG388487-03	Serial Dilution		25	L12010515-09	02/07/12 10:34
19	T2.020712.103731	WG388441-01	Reference Sample		1	L12010767-01	02/07/12 10:37
20	T2.020712.104051	WG388441-04	Matrix Spike	50/50	1	L12010767-01	02/07/12 10:40
21	T2.020712.104406	WG388441-05	Matrix Spike Duplica	50/50	1	L12010767-01	02/07/12 10:44
22	T2.020712.104720	L12010798-01	MPL22-0112-1	50/50	1		02/07/12 10:47
23	T2.020712.105042	L12010799-01	POND OUTFALL	50/50	1		02/07/12 10:50
24	T2.020712.105409	WG388943-20	CCV		1		02/07/12 10:54
25	T2.020712.105722	WG388943-21	CCB		1		02/07/12 10:57
26	T2.020712.110056	L12010800-01	FTGWEF312	50/50	1		02/07/12 11:00
27	T2.020712.110417	WG388487-01	Post Digestion Spike		1	L12010800-01	02/07/12 11:04
28	T2.020712.110731	WG388487-02	Serial Dilution		5	L12010800-01	02/07/12 11:07
29	T2.020712.111052	L12010813-01	2371-W0001	50/50	1		02/07/12 11:10
30	T2.020712.111418	L12010813-02	40004-W0001	50/50	1		02/07/12 11:14
31	T2.020712.111744	L12010813-03	40004-W0002	50/50	1		02/07/12 11:17
32	T2.020712.112111	L12010813-04	8776-W0001	50/50	1		02/07/12 11:21
33	T2.020712.112441	L12010813-05	8792-W0001	50/50	1		02/07/12 11:24
34	T2.020712.112808	L12010813-06	8792-W0002	50/50	1		02/07/12 11:28

Page: 1 Approved: February 08, 2012

Marcia Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 020712T2.1R.TXT
Analyst1: EDL Analyst2: N/A
Method: 6010 SOP: ME600G Rev: 2
Maintenance Log ID: 40536

Calibration Std: STD49884 ICV Std: STD49885 Post Spike: STD49449
ICSA: STD49701 ICSAB: STD49804 Int. Std: STD49870
CCV: STD49883 LLCCV:

Workgroups: 388487, 388719, 388773, 388881, 388967, 388971

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.020712.113135	L12010813-07	8794-W0001	50/50	1		02/07/12 11:31
36	T2.020712.113507	WG388943-22	CCV		1		02/07/12 11:35
37	T2.020712.113822	WG388943-23	CCB		1		02/07/12 11:38
38	T2.020712.114156	L12010813-08	9139-W0001	50/50	1		02/07/12 11:41
39	T2.020712.114523	L12010813-09	9139-W0002	50/50	1		02/07/12 11:45
40	T2.020712.114850	L12010813-10	9174-W0001	50/50	1		02/07/12 11:48
41	T2.020712.115216	L12010813-11	9185-W0001	50/50	1		02/07/12 11:52
42	T2.020712.115542	L12010813-12	9185-W0002	50/50	1		02/07/12 11:55
43	T2.020712.115909	L12010824-01	70115-W0001	50/50	1		02/07/12 11:59
44	T2.020712.120236	L12010824-02	70152-W0001	50/50	1		02/07/12 12:02
45	T2.020712.120602	L12010824-03	70241-W0001	50/50	1		02/07/12 12:06
46	T2.020712.120934	WG388943-24	CCV		1		02/07/12 12:09
47	T2.020712.121247	WG388943-25	CCB		1		02/07/12 12:12
48	T2.020712.121620	WG388943-26	Linear Range Check		1		02/07/12 12:16
49	T2.020712.121951	WG388943-26	Linear Range Check		1		02/07/12 12:19
50	T2.020712.122323	WG388943-26	Linear Range Check		1		02/07/12 12:23
51	T2.020712.123609	WG388943-26	Linear Range Check		1		02/07/12 12:36
52	T2.020712.123925	WG388943-26	Linear Range Check		1		02/07/12 12:39
53	T2.020712.124259	WG388943-26	Linear Range Check		1		02/07/12 12:42
54	T2.020712.124633	WG388943-26	Linear Range Check		1		02/07/12 12:46
55	T2.020712.125008	WG388943-26	Linear Range Check		1		02/07/12 12:50
56	T2.020712.125346	WG388943-29	LRC		1		02/07/12 12:53
57	T2.020712.130018	BLANK	BLANK		1		02/07/12 13:00
58	T2.020712.130659	WG388943-27	CCV		1		02/07/12 13:06
59	T2.020712.131011	WG388943-28	CCB		1		02/07/12 13:10
60	T2.020712.131348	WG388591-02	Method/Prep Blank	50/50	1		02/07/12 13:13
61	T2.020712.131715	WG388591-03	Laboratory Control S	50/50	1		02/07/12 13:17
62	T2.020712.132032	WG388591-01	Reference Sample		1	L12010821-02	02/07/12 13:20
63	T2.020712.132359	WG388591-04	Matrix Spike	50/50	1	L12010821-02	02/07/12 13:23
64	T2.020712.132715	WG388591-05	Matrix Spike Duplica	50/50	1	L12010821-02	02/07/12 13:27
65	T2.020712.133031	L12010821-11	SW2A-269-14	50/50	1		02/07/12 13:30
66	T2.020712.133355	L12010821-14	SW2B-269-14	50/50	1		02/07/12 13:33
67	T2.020712.133719	L12010821-17	SW3A-269-14	50/50	1		02/07/12 13:37
68	T2.020712.134042	WG388719-01	Post Digestion Spike		1	L12010821-17	02/07/12 13:40

Page: 2 Approved: February 08, 2012

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 020712T2.1R.TXT
Analyst1: EDL Analyst2: N/A
Method: 6010 SOP: ME600G Rev: 2
Maintenance Log ID: 40536

Calibration Std: STD49884 ICV Std: STD49885 Post Spike: STD49449
ICSA: STD49701 ICSAB: STD49804 Int. Std: STD49870
CCV: STD49883 LLCCV:

Workgroups: 388487, 388719, 388773, 388881, 388967, 388971

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.020712.134400	WG388719-02	Serial Dilution		5	L12010821-17	02/07/12 13:44
70	T2.020712.134731	WG388943-30	CCV		1		02/07/12 13:47
71	T2.020712.135043	WG388943-31	CCB		1		02/07/12 13:50
72	T2.020712.135416	L12010821-20	SW4A-269-14	50/50	1		02/07/12 13:54
73	T2.020712.135741	L12010821-23	SW5A-269-14	50/50	1		02/07/12 13:57
74	T2.020712.140108	L12020021-03	1201-334-1	50/50	1		02/07/12 14:01
75	T2.020712.140430	L12020021-04	1201-334-2	50/50	1		02/07/12 14:04
76	T2.020712.140749	L12020021-05	1201-334-3	50/50	1		02/07/12 14:07
77	T2.020712.141112	L12020023-01	1201-370-1	50/50	1		02/07/12 14:11
78	T2.020712.141434	L12020023-02	1201-370-2	50/50	1		02/07/12 14:14
79	T2.020712.141756	L12020023-03	1201-370-3	50/50	1		02/07/12 14:17
80	T2.020712.142122	L12020023-04	1201-370-4	50/50	1		02/07/12 14:21
81	T2.020712.142446	L12020023-05	1201-370-5	50/50	1		02/07/12 14:24
82	T2.020712.142816	WG388943-32	CCV		1		02/07/12 14:28
83	T2.020712.143132	WG388943-33	CCB		1		02/07/12 14:31
84	T2.020712.143506	L12020026-01	11267-W0001	50/50	1		02/07/12 14:35
85	T2.020712.143831	L12020026-02	11652-W0002	50/50	1		02/07/12 14:38
86	T2.020712.144157	L12020026-03	14659-W0001	50/50	1		02/07/12 14:41
87	T2.020712.144523	L12020026-04	14659-W0002	50/50	1		02/07/12 14:45
88	T2.020712.144848	L12020026-05	17097-W0001	50/50	1		02/07/12 14:48
89	T2.020712.145215	L12020026-06	17097-W0002	50/50	1		02/07/12 14:52
90	T2.020712.145540	WG388943-34	LLCCV		1		02/07/12 14:55
91	T2.020712.150341	WG388943-35	LLCCV		1		02/07/12 15:03
92	T2.020712.152448	WG388943-36	Low Level Continuing Calibra		1		02/07/12 15:24
93	T2.020712.152826	WG388943-37	CCV		1		02/07/12 15:28
94	T2.020712.153140	WG388943-38	CCB		1		02/07/12 15:31
95	T2.020712.153511	WG388649-02	Method/Prep Blank	50/50	1		02/07/12 15:35
96	T2.020712.153840	WG388649-03	Laboratory Control S	50/50	1		02/07/12 15:38
97	T2.020712.154158	WG388649-01	Reference Sample		1	L12020016-01	02/07/12 15:41
98	T2.020712.154520	WG388649-04	Matrix Spike	50/50	1	L12020016-01	02/07/12 15:45
99	T2.020712.154837	WG388649-05	Matrix Spike Duplica	50/50	1	L12020016-01	02/07/12 15:48
100	T2.020712.155149	L12020016-04	MPL2-0112-1	50/50	1		02/07/12 15:51
101	T2.020712.155509	L12020016-05	MPL3-0112-1	50/50	1		02/07/12 15:55
102	T2.020712.155829	L12020016-06	MPL3-0112-2	50/50	1		02/07/12 15:58

Page: 3 Approved: February 08, 2012

Marcia Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 020712T2.1R.TXT
Analyst1: EDL Analyst2: N/A
Method: 6010 SOP: ME600G Rev: 2
Maintenance Log ID: 40536

Calibration Std: STD49884 ICV Std: STD49885 Post Spike: STD49449
ICSA: STD49701 ICSAB: STD49804 Int. Std: STD49870
CCV: STD49883 LLCCV:

Workgroups: 388487, 388719, 388773, 388881, 388967, 388971

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.020712.160150	WG388773-01	Post Digestion Spike		1	L12020016-06	02/07/12 16:01
104	T2.020712.160503	WG388773-02	Serial Dilution		5	L12020016-06	02/07/12 16:05
105	T2.020712.160835	WG388943-39	CCV		1		02/07/12 16:08
106	T2.020712.161148	WG388943-40	CCB		1		02/07/12 16:11
107	T2.020712.161523	L12020016-07	MPL1-0112-1	50/50	1		02/07/12 16:15
108	T2.020712.161843	L12020044-01	MPL19-0212-1	50/50	1		02/07/12 16:18
109	T2.020712.162204	L12020044-02	MPL20-0212-1	50/50	1		02/07/12 16:22
110	T2.020712.162525	L12020044-03	MPL20-0212-2	50/50	1		02/07/12 16:25
111	T2.020712.162846	L12020046-02	KY038PS0390212	50/50	1		02/07/12 16:28
112	T2.020712.163206	L12020046-04	KY038PS0370212	50/50	1		02/07/12 16:32
113	T2.020712.163525	L12020046-05	KY038PS0380212	50/50	1		02/07/12 16:35
114	T2.020712.163846	L12020046-07	KY038PS0270212	50/50	1		02/07/12 16:38
115	T2.020712.164205	L12020046-08	SS052PS7410212	50/50	1		02/07/12 16:42
116	T2.020712.164526	L12020046-09	SS052PS5900212	50/50	1		02/07/12 16:45
117	T2.020712.164854	WG388943-41	CCV		1		02/07/12 16:48
118	T2.020712.165207	WG388943-42	CCB		1		02/07/12 16:52
119	T2.020712.165539	L12020058-01	MW13-GW01-013112	50/50	1		02/07/12 16:55
120	T2.020712.165857	L12020058-02	MW13-GW01-013112	50/50	1		02/07/12 16:58
121	T2.020712.170216	WG388943-43	Interference Check		1		02/07/12 17:02
122	T2.020712.170534	WG388943-44	Interference Check		1		02/07/12 17:05
123	T2.020712.170847	WG388943-45	Low Level Initial Calibration V		1		02/07/12 17:08
124	T2.020712.171211	WG388943-46	Low Level Initial Calibration V		1		02/07/12 17:12
125	T2.020712.171540	WG388943-47	CCV		1		02/07/12 17:15
126	T2.020712.171853	WG388943-48	CCB		1		02/07/12 17:18
127	T2.020712.172224	WG388812-02	Method/Prep Blank	50/50	1		02/07/12 17:22
128	T2.020712.172550	WG388812-03	Laboratory Control S	50/50	1		02/07/12 17:25
129	T2.020712.172906	L12020075-02	MW2B-269-14	50/50	1		02/07/12 17:29
130	T2.020712.173230	WG388812-01	Reference Sample		1	L12020075-05	02/07/12 17:32
131	T2.020712.173555	WG388812-04	Matrix Spike	50/50	1	L12020075-05	02/07/12 17:35
132	T2.020712.173911	WG388812-05	Matrix Spike Duplica	50/50	1	L12020075-05	02/07/12 17:39
133	T2.020712.174226	L12020075-14	MW4B-269-14	50/50	1		02/07/12 17:42
134	T2.020712.174549	L12020075-17	MW4C-269-14	50/50	1		02/07/12 17:45
135	T2.020712.174912	WG388881-01	Post Digestion Spike		1	L12020075-17	02/07/12 17:49
136	T2.020712.175228	WG388881-02	Serial Dilution		5	L12020075-17	02/07/12 17:52

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Marcia Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 020712T2.1R.TXT
Analyst1: EDL Analyst2: N/A
Method: 6010 SOP: ME600G Rev: 2
Maintenance Log ID: 40536

Calibration Std: STD49884 ICV Std: STD49885 Post Spike: STD49449
ICSA: STD49701 ICSAB: STD49804 Int. Std: STD49870
CCV: STD49883 LLCCV:

Workgroups: 388487, 388719, 388773, 388881, 388967, 388971

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.020712.175556	WG388943-49	CCV		1		02/07/12 17:55
138	T2.020712.175910	WG388943-50	CCB		1		02/07/12 17:59
139	T2.020712.180238	L12020075-20	MW5A-269-14	50/50	1		02/07/12 18:02
140	T2.020712.180601	L12020075-23	OW1B-269-14	50/50	1		02/07/12 18:06
141	T2.020712.180922	L12020075-26	OW1B2-269-14	50/50	1		02/07/12 18:09
142	T2.020712.181245	L12020075-29	OW2A-269-14	50/50	1		02/07/12 18:12
143	T2.020712.181610	L12020075-32	OW3A-269-14	50/50	1		02/07/12 18:16
144	T2.020712.181936	L12020086-01	T-1360	50/50	5		02/07/12 18:19
145	T2.020712.182302	L12020086-02	T-1362	50/50	5		02/07/12 18:23
146	T2.020712.182635	WG388943-51	CCV		1		02/07/12 18:26
147	T2.020712.182947	WG388943-52	CCB		1		02/07/12 18:29
148	T2.020712.183318	L12020086-03	T-1363	50/50	5		02/07/12 18:33
149	T2.020712.183643	L12020086-04	T-1365	50/50	5		02/07/12 18:36
150	T2.020712.184008	L12020086-05	T-1343	50/50	5		02/07/12 18:40
151	T2.020712.184328	L12020091-01	MPL23-0212-1	50/50	1		02/07/12 18:43
152	T2.020712.184651	WG388943-53	CCV		1		02/07/12 18:46
153	T2.020712.185004	WG388943-54	CCB		1		02/07/12 18:50
154	T2.020712.185335	WG388934-02	Method/Prep Blank	5/50	1		02/07/12 18:53
155	T2.020712.185701	WG388934-03	Laboratory Control S	5/50	1		02/07/12 18:57
156	T2.020712.190019	WG388639-01	Fluid Blank		1		02/07/12 19:00
157	T2.020712.190344	WG388895-01	TCLP Fluid Blank 1		1		02/07/12 19:03
158	T2.020712.190710	WG388895-02	TCLP Fluid Blank 2		1		02/07/12 19:07
159	T2.020712.191036	L12020039-01	SOIL/STONE	5/50	1		02/07/12 19:10
160	T2.020712.191358	L12020064-01	NOVELIS BLUE	5/50	1		02/07/12 19:13
161	T2.020712.191729	WG388967-01	Post Digestion Spike		1	L12020064-01	02/07/12 19:17
162	T2.020712.192052	WG388967-02	Serial Dilution		5	L12020064-01	02/07/12 19:20
163	T2.020712.192426	WG388943-55	CCV		1		02/07/12 19:24
164	T2.020712.192738	WG388943-56	CCB		1		02/07/12 19:27
165	T2.020712.193111	L12020067-01	PRECISION RIG 823	5/50	1		02/07/12 19:31
166	T2.020712.193434	L12020079-02	GRENADIER	5/50	1		02/07/12 19:34
167	T2.020712.193754	WG388934-01	Reference Sample		1	L12020080-02	02/07/12 19:37
168	T2.020712.194125	WG388934-04	Matrix Spike	5/50	1	L12020080-02	02/07/12 19:41
169	T2.020712.194448	WG388934-05	Matrix Spike Duplica	5/50	1	L12020080-02	02/07/12 19:44
170	T2.020712.194812	L12020081-01	SANDBLAST WASTE DRUM	5/50	1		02/07/12 19:48

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Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 020712T2.1R.TXT
Analyst1: EDL Analyst2: N/A
Method: 6010 SOP: ME600G Rev: 2
Maintenance Log ID: 40536

Calibration Std: STD49884 ICV Std: STD49885 Post Spike: STD49449
ICSA: STD49701 ICSAB: STD49804 Int. Std: STD49870
CCV: STD49883 LLCCV:

Workgroups: 388487, 388719, 388773, 388881, 388967, 388971

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T2.020712.195130	L12020082-02	HALL DRILLING	5/50	1		02/07/12 19:51
172	T2.020712.195452	L12020135-06	1109-116D-001	5/50	1		02/07/12 19:54
173	T2.020712.195820	WG388943-57	CCV		1		02/07/12 19:58
174	T2.020712.200133	WG388943-58	CCB		1		02/07/12 20:01
175	T2.020712.200504	WG388911-02	Method/Prep Blank	50/50	1		02/07/12 20:05
176	T2.020712.200830	WG388911-03	Laboratory Control S	50/50	1		02/07/12 20:08
177	T2.020712.201148	L12020103-01	010	50/50	1		02/07/12 20:11
178	T2.020712.201524	WG388911-01	Reference Sample		1	L12020103-02	02/07/12 20:15
179	T2.020712.201859	WG388911-04	Duplicate	50/50	1	L12020103-02	02/07/12 20:18
180	T2.020712.202235	WG388911-05	Matrix Spike	50/50	1	L12020103-02	02/07/12 20:22
181	T2.020712.202607	L12020103-03	012	50/50	1		02/07/12 20:26
182	T2.020712.202934	L12020103-04	012	50/50	1		02/07/12 20:29
183	T2.020712.203301	WG388971-01	Post Digestion Spike		1	L12020103-04	02/07/12 20:33
184	T2.020712.203617	WG388971-02	Serial Dilution		5	L12020103-04	02/07/12 20:36
185	T2.020712.203943	WG388943-59	CCV		1		02/07/12 20:39
186	T2.020712.204256	WG388943-60	CCB		1		02/07/12 20:42
187	T2.020712.204627	L12020103-05	016	50/50	1		02/07/12 20:46
188	T2.020712.204951	L12020103-06	016	50/50	1		02/07/12 20:49
189	T2.020712.205310	L12020103-07	017	50/50	1		02/07/12 20:53
190	T2.020712.205646	L12020103-08	017	50/50	1		02/07/12 20:56
191	T2.020712.210023	L12020103-09	018	50/50	1		02/07/12 21:00
192	T2.020712.210407	L12020103-10	018	50/50	1		02/07/12 21:04
193	T2.020712.210800	WG388943-61	CCV		1		02/07/12 21:08
194	T2.020712.211113	WG388943-62	CCB		1		02/07/12 21:11
195	T2.020712.211442	RINSE	RINSE		1		02/07/12 21:14
196	T2.020712.211813	RINSE1	RINSE1		1		02/07/12 21:18
197	T2.020712.212143	RINSE2	RINSE2		1		02/07/12 21:21
198	T2.020712.212513	RINSE3	RINSE3		1		02/07/12 21:25
199	T2.020712.212841	RINSE4	RINSE4		1		02/07/12 21:28
200	T2.020712.213211	RINSE5	RINSE5		1		02/07/12 21:32
201	T2.020712.213539	RINSE6	RINSE6		1		02/07/12 21:35
202	T2.020712.213909	RINSE7	RINSE7		1		02/07/12 21:39

Comments

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Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 020712T2.1R.TXT
Analyst1: EDL Analyst2: N/A
Method: 6010 SOP: ME600G Rev: 2
Maintenance Log ID: 40536

Calibration Std: STD49884 ICV Std: STD49885 Post Spike: STD49449
ICSA: STD49701 ICSAB: STD49804 Int. Std: STD49870
CCV: STD49883 LLCCV:

Workgroups: 388487, 388719, 388773, 388881, 388967, 388971

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time

Seq.	Rerun	Dil.	Reason	Analytes
8			Due to analyst error, the LLICV analyzed at 09:05 was spiked incorrectly for nickel. Therefore an LLICV was analyzed at 09:29 for nickel only.	
56			Data not used - result "k'd out".	
90			Data not used - result "k'd out".	
91			Data not used due to nebulizer flow interference.	
123			Due to analyst error, the LLCCV analyzed at 17:08 was spiked incorrectly for nickel. Therefore an LLCCV was analyzed at 17:12 for nickel only.	

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Microbac Laboratories Inc.

Data Checklist

Date: 07-FEB-2012
Analyst: EDL
Analyst: NA
Method: 6010
Instrument: ICP-THERMO2
Curve Workgroup: 388943
Runlog ID: 45007
Analytical Workgroups: 388487, 388719, 388773, 388881, 388967, 388971

Calibration/Linearity	X
ICV/CCV	X
ICV RSD <= 3% (EPA 200.7 only)	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	515, 767, 798, 799, 800, 813, 824
Case Narrative (Continued)	021, 023, 026, 016, 044, 046, 058
Case Narrative (Continued)	091, 135
Client Forms	X
Level X	
Level 3	799, 800, 046, 058
Level 4	515, 767, 813, 824, 026, 016, 044
Level 4 (Continued)	091, 135
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	EDL
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
08-FEB-2012
Erin D. Long

Secondary Reviewer:
08-FEB-2012
Maren Berry

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-08-2012 15:30:52

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6010B AAB#: WG388487

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12					02/01/12	4.6	180		02/07/12	10.8	180	
MPL-21-0112-MS	02	01/27/12					02/01/12	4.6	180		02/07/12	10.8	180	
MPL-21-0112-MSD	03	01/27/12					02/01/12	4.6	180		02/07/12	10.8	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2300664
Report generated 02/07/2012 12:43

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: T2.020712.102033
Prep Date: 02/01/12 06:13
Analyzed Date: 02/07/12 10:20
Analyst: EDL

Work Group: WG388487
Blank Sample ID: WG388441-02
Instrument ID: ICP-THERMO2
Method: 6010B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388441-03	T2.020712.102358	02/07/12 10:23	01
MPL-21-0112-1	L12010767-01	T2.020712.103731	02/07/12 10:37	01
MPL-21-0112-MS	L12010767-02	T2.020712.104051	02/07/12 10:40	01
MPL-21-0112-MSD	L12010767-03	T2.020712.104406	02/07/12 10:44	01

Report Name: BLANK_SUMMARY
PDF File ID: 2300665
Report generated 02/07/2012 12:43

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 02/01/12 06:13 Sample ID: WG388441-02
Instrument ID: ICP-THERMO2 Run Date: 02/07/12 10:20 Prep Method: 3005A
File ID: T2.020712.102033 Analyst: EDL Method: 6010B
Workgroup (AAB#): WG388487 Matrix: Water Units: mg/L
Contract #: Cal ID: ICP-TH-07-FEB-12

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Beryllium, Total	0.00100	0.00200	0.00100	1	U
Calcium, Total	0.100	0.200	0.100	1	U
Magnesium, Total	0.250	0.500	0.250	1	U
Manganese, Total	0.00500	0.0100	0.00500	1	U
Potassium, Total	0.500	1.00	0.500	1	U
Sodium, Total	0.250	0.500	0.250	1	U
Tin, Total	0.250	0.500	0.250	1	U
Vanadium, Total	0.00500	0.0100	0.00500	1	U
Zinc, Total	0.0100	0.0200	0.0100	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name: BLANK
PDF ID: 2300666
07-FEB-2012 12:43

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Run Date: 02/07/2012 Sample ID: WG388441-03
Instrument ID: ICP-THERMO2 Run Time: 10:23 Prep Method: 3005A
File ID: T2.020712.102358 Analyst: EDL Method: 6010B
Workgroup (AAB#): WG388487 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD49450 Cal ID: ICP-TH-07-FEB-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Beryllium, Total	0.0250	0.0242	96.8	80 - 120	
Calcium, Total	5.00	4.86	97.3	80 - 120	
Magnesium, Total	5.00	4.92	98.5	80 - 120	
Manganese, Total	0.250	0.242	96.6	80 - 120	
Potassium, Total	25.0	24.2	96.9	80 - 120	
Sodium, Total	25.0	24.9	99.5	80 - 120	
Tin, Total	0.500	0.516	103	80 - 120	
Vanadium, Total	0.500	0.486	97.3	80 - 120	
Zinc, Total	0.500	0.495	99.1	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2300667
Report generated: 02/08/2012 15:47

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: ICP-THERMO2- 07-FEB-12 Worknum: WG388487
Instrument ID: ICP-THERMO2 Contract #: Prep Method: 3005A
Parent ID: L12010767-01 File ID: T2.020712.103731 Dil: 1 Method: 6010B
Sample ID: L12010767-02 MS File ID: T2.020712.104051 Dil: 1 Matrix: Water
Sample ID: L12010767-03 MSD File ID: T2.020712.104406 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Beryllium, Total	U	0.0250	0.0249	99.5	0.0250	0.0238	95.3	4.35	80 - 120	20	
Calcium, Total	35.5	5.00	39.3	76.7	5.00	38.9	68	1.12	80 - 120	20	*
Magnesium, Total	5.32	5.00	10.0	93.8	5.00	10.0	93.9	0.0300	80 - 120	20	
Manganese, Total	U	0.250	0.243	97.4	0.250	0.246	98.4	1.08	80 - 120	20	
Potassium, Total	2.28	25.0	26.8	98.1	25.0	27.0	98.9	0.740	80 - 120	20	
Sodium, Total	21.8	25.0	46.5	98.6	25.0	46.3	98.1	0.308	80 - 120	20	
Tin, Total	U	0.500	0.524	105	0.500	0.530	106	0.971	80 - 120	20	
Vanadium, Total	0.00833	0.500	0.507	99.8	0.500	0.483	95	4.90	80 - 120	20	
Zinc, Total	0.0227	0.500	0.509	97.3	0.500	0.510	97.4	0.112	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2300668
Report generated 02/08/2012 15:48

Microbac Laboratories Inc.
Serial Dilution Report

Login: L12010767 **Worknum:** WG388487
Instrument: ICP-THERMO2 **Method:** 6010B
Serial Dil: WG388487-02 **File ID:** T2.020712.110731 **Dil:** 5 **Units:** mg/L
Sample: L12010800-01 **File ID:** T2.020712.110056 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Beryllium			ND	U		
Calcium	60.6		61.0		0.75	
Magnesium	19.0		19.3		1.65	
Manganese	0.132	X	0.135	X	2.12	
Potassium	1.60	X	ND	U		
Sodium	13.8		13.9		0.69	
Tin	ND	U	ND	U		
Vanadium	ND	U	ND	U		
Zinc	ND	U	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 50 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 2300662
02/07/2012 12:42

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L12010767 **Worknum:** WG388487
Instrument ID: ICP-THERMO2 **Method:** 6010B
Post Spike ID: WG388487-01 **File ID:** T2.020712.110417 **Dil:** 1 **Units:** mg/L
Sample ID: L12010800-01 **File ID:** T2.020712.110056 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
BERYLLIUM	0.0247		0		.025	98.7	75 - 125	
CALCIUM	58.5		60.6		5	78.5	75 - 125	
MAGNESIUM	21.5		19.0		5	87.8	75 - 125	
MANGANESE	0.359		0.132		.25	96.0	75 - 125	
POTASSIUM	26.0		1.60		25	98.3	75 - 125	
SODIUM	37.3		13.8		25	99.6	75 - 125	
TIN	0.501		0	U	.5	100.1	75 - 125	
VANADIUM	0.493		0	U	.5	98.6	75 - 125	
ZINC	0.506		0	U	.5	101.3	75 - 125	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 2300663
Report generated: 02/07/2012 12:42

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	**L12010767**	Workgroup (AAB#):	**WG388487**
Analytical Method:	**6010B**	Instrument ID:	**ICP-THERMO2**
ICAL Worknum:	**WG388943**	Initial Calibration Date:	**07-FEB-2012 08:55**

	WG388943-01		WG388943-02		WG388943-03		WG388943-04		WG388943-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
BERYLLIUM	0	-0.00187	.0005	0.00266	.001	0.00776	.05	0.484	.1	0.978	.999983	
CALCIUM	0	-0.00498	.1	-0.00125	.2	0.00142	10	0.300	20	0.603	.999907	
MAGNESIUM	0	-0.0000800	.1	0.00105	.2	0.00197	10	0.0896	20	0.178	.999813	
MANGANESE	0	0.000300	.005	0.00181	.01	0.00331	.5	0.150	1	0.297	.99999	
POTASSIUM	0	0.00320	.5	0.0122	1	0.0220	50	0.981	100	1.96	.999985	
SODIUM	0	-0.0162	.5	0.0166	1	0.0480	50	3.18	100	6.31	.999989	
TIN	0	0.000100	.01	0.00130	.02	0.00258	1	0.120	2	0.237	.999983	
VANADIUM	0	-0.00143	.01	0.00973	.02	0.0214	1	1.12	2	2.25	.999997	
ZINC	0	0.00154	.01	0.00797	.02	0.0148	1	0.637	2	1.27	.999993	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 2300672
Report generated: 07-FEB-2012 12:43

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L12010767
Run Date: 02/07/2012
Sample ID: WG388943-07
Instrument ID: ICP-THERMO2
Run Time: 09:01
Method: 6010B
File ID: T2.020712.090150
Analyst: EDL
Units: mg/L
Workgroup (AAB#): WG388487
Cal ID: ICP-THERI - 07-FEB-12
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
BERYLLIUM	.001	.002	.001	U
CALCIUM	.1	.2	.1	U
MAGNESIUM	.25	.5	.25	U
MANGANESE	.005	.01	.005	U
POTASSIUM	.5	1	.5	U
SODIUM	.25	.5	.25	U
TIN	.25	.5	.25	U
VANADIUM	.005	.01	.005	U
ZINC	.01	.02	.01	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 2300674
Report generated 02/07/2012 12:43

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Run Date: 02/07/2012
Sample ID: WG388943-13
Instrument ID: ICP-THERMO2
Run Time: 09:36
Method: 6010B
File ID: T2.020712.093644
Analyst: EDL
Units: mg/L
Workgroup (AAB#): WG388487
Cal ID: ICP-TH - 07-FEB-12
Matrix: WATER
QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Beryllium	0.00100	0.00200	0.00100	U
Calcium	0.100	0.200	0.100	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Potassium	0.500	1.00	0.500	U
Sodium	0.250	0.500	0.250	U
Tin	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.0100	0.0200	0.0100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2300678
Report generated 02/07/2012 12:43

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Run Date: 02/07/2012
Sample ID: WG388943-21
Instrument ID: ICP-THERMO2
Run Time: 10:57
Method: 6010B
File ID: T2.020712.105722
Analyst: EDL
Units: mg/L
Workgroup (AAB#): WG388487
Cal ID: ICP-TH - 07-FEB-12
Matrix: WATER
QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Beryllium	0.00100	0.00200	0.00100	U
Calcium	0.100	0.200	0.100	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Potassium	0.500	1.00	0.500	U
Sodium	0.250	0.500	0.250	U
Tin	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.0100	0.0200	0.0100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2300678
Report generated 02/07/2012 12:43

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Run Date: 02/07/2012
Sample ID: WG388943-23
Instrument ID: ICP-THERMO2
Run Time: 11:38
Method: 6010B
File ID: T2.020712.113822
Analyst: EDL
Units: mg/L
Workgroup (AAB#): WG388487
Cal ID: ICP-TH - 07-FEB-12
Matrix: WATER
QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Beryllium	0.00100	0.00200	0.00100	U
Calcium	0.100	0.200	0.100	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Potassium	0.500	1.00	0.500	U
Sodium	0.250	0.500	0.250	U
Tin	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.0100	0.0200	0.0100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2300678
Report generated 02/07/2012 12:43

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L12010767 Run Date: 02/07/2012 Sample ID: WG388943-06
Instrument ID: ICP-THERMO2 Run Time: 08:58 Method: 6010B
File ID: T2.020712.085836 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG388487 Cal ID: ICP-TH - 07-FEB-12
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Beryllium		.05	0.0501	100	90 - 110	
Calcium		10	9.93	99.3	90 - 110	
Magnesium		10	10.0	100	90 - 110	
Manganese		.5	0.505	101	90 - 110	
Potassium		50	50.4	101	90 - 110	
Sodium		50	50.3	101	90 - 110	
Tin		1	1.04	104	90 - 110	
Vanadium		1	0.998	99.8	90 - 110	
Zinc		1	1.02	102	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2300673
Report generated 02/07/2012 12:43

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 02/07/2012
Sample ID: WG388943-12
Instrument ID: ICP-THERMO2
Run Time: 09:33
Method: 6010B
File ID: T2.020712.093327
Analyst: EDL
QC Key: DOD4
Workgroup (AAB#): WG388487
Cal ID: ICP-TH - 07-FEB-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Beryllium		0.0500	0.0491	mg/L	98.2	90 - 110		
Calcium		10.0	9.99	mg/L	99.9	90 - 110		
Magnesium		10.0	9.96	mg/L	99.6	90 - 110		
Manganese		0.500	0.497	mg/L	99.3	90 - 110		
Potassium		50.0	49.8	mg/L	99.6	90 - 110		
Sodium		50.0	49.9	mg/L	99.8	90 - 110		
Tin		1.00	1.01	mg/L	101	90 - 110		
Vanadium		1.00	0.989	mg/L	98.9	90 - 110		
Zinc		1.00	1.01	mg/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2300677
Report generated 02/07/2012 12:43

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 02/07/2012
Sample ID: WG388943-20
Instrument ID: ICP-THERMO2
Run Time: 10:54
Method: 6010B
File ID: T2.020712.105409
Analyst: EDL
QC Key: DOD4
Workgroup (AAB#): WG388487
Cal ID: ICP-TH - 07-FEB-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Beryllium		0.0500	0.0493	mg/L	98.5	90 - 110		
Calcium		10.0	10.0	mg/L	100	90 - 110		
Magnesium		10.0	9.83	mg/L	98.3	90 - 110		
Manganese		0.500	0.492	mg/L	98.3	90 - 110		
Potassium		50.0	49.7	mg/L	99.5	90 - 110		
Sodium		50.0	50.2	mg/L	100	90 - 110		
Tin		1.00	1.01	mg/L	101	90 - 110		
Vanadium		1.00	0.998	mg/L	99.8	90 - 110		
Zinc		1.00	1.01	mg/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2300677
Report generated 02/07/2012 12:43

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 02/07/2012
Sample ID: WG388943-22
Instrument ID: ICP-THERMO2
Run Time: 11:35
Method: 6010B
File ID: T2.020712.113507
Analyst: EDL
QC Key: DOD4
Workgroup (AAB#): WG388487
Cal ID: ICP-TH - 07-FEB-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Beryllium		0.0500	0.0480	mg/L	95.9	90 - 110		
Calcium		10.0	9.86	mg/L	98.6	90 - 110		
Magnesium		10.0	9.93	mg/L	99.3	90 - 110		
Manganese		0.500	0.495	mg/L	99.1	90 - 110		
Potassium		50.0	49.7	mg/L	99.5	90 - 110		
Sodium		50.0	50.0	mg/L	100	90 - 110		
Tin		1.00	0.997	mg/L	99.7	90 - 110		
Vanadium		1.00	0.973	mg/L	97.3	90 - 110		
Zinc		1.00	0.986	mg/L	98.6	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2300677
Report generated 02/07/2012 12:43

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L12010767 **Workgroup (AAB#):** WG388487
Instrument ID: ICP-THERMO2 **Method:** 6010B
Sol. A : WG388943-09 **File ID:** T2.020712.090842 **Units:** mg/L
Sol. AB : WG388943-10 **File ID:** T2.020712.092647 **Matrix:** Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Beryllium	NS	-0.0000100	NS	0.250	0.255	102	
Calcium	250	250	100	250	248	99.2	
Magnesium	250	247	98.8	250	243	97.2	
Manganese	NS	-0.000390	NS	0.250	0.238	95.2	
Potassium	NS	0.0304	NS	5.00	5.08	102	
Sodium	NS	0.0390	NS	5.00	5.12	102	
Tin	NS	0.000940	NS	NS	0.000510	NS	
Vanadium	NS	-0.000870	NS	0.250	0.251	100	
Zinc	NS	-0.00139	NS	0.500	0.493	98.6	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
 # = Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 2300675
Report generated 02/07/2012 12:43

LRC SAMPLE

Login Number: L12010767
Run Date: 02/07/2012
Sample ID: WG388943
Instrument ID: ICP-THERMO2
Run Time: 08:55
Prep Method: 3005A
Analyst: EDL
Method: 6010B
Workgroup (AAB#): WG388487
Matrix: Water
Units: mg/L
Cal ID: 07-FEB-12 - 07-FEB-2012 08:55

Analytes	Expected	Found	% Rec	Limits	Q
Calcium, Total	1000	941	94.1	90 - 110	
Magnesium, Total	1000	1020	102	90 - 110	
Manganese, Total	200	191	95.5	90 - 110	
Zinc, Total	50	47.7	95.4	90 - 110	

KEMRON FORMS - Modified 08/28/2006
Version 1.5 PDF File ID: 2300773
Report generated 02/07/2012 13:18

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12010767 **Date:** 12/30/2011
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	AL	AS	B	BA	BE
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0.0000210	0	0	0	0
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	0.00190	0	-0.000140	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	-0.000660	0	0	0
COBALT	228.60	0	0	0	0	0
COPPER	224.70	0	0	0	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000248	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	-0.000750	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	-0.0000300	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	-0.0000120	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0.00000100	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 2300671
Report generated: 02/07/2012 12:43

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12010767 **Date:** 12/30/2011
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	CA	CO	CR	CU	FE
ALUMINUM	308.20	0	-0.000820	0	0	0
ANTIMONY	206.80	0	0	0.00950	0	0.0000560
ARSENIC	189.00	0	0	-0.000200	0	-0.0000120
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0.00343	0	0	-0.000619
CADMIUM	228.80	0	-0.00200	0	0	0.00000400
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	-0.000160	0	0	0.0000530
COBALT	228.60	0	0	0.000108	0	0
COPPER	224.70	0	0.0000770	0	0	0.000223
IRON	261.20	-0.000120	0	-0.0000460	-0.0000290	0
LEAD	220.30	0	-0.0000930	-0.000172	0.000809	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	-0.0000920	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0.000100	0	0	0.0000320
PHOSPHORUS	214.90	0	0	0	0.00200	0.00120
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0.0000970	0	0	0	0
THALLIUM	190.80	0	0.00397	0.000276	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	-0.00000200
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	-0.0000300

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 2300671
Report generated: 02/07/2012 12:43

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12010767 **Date:** 12/30/2011
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	LI	MG	MN	MO	NA
ALUMINUM	308.20	0	0	0	0.0153	0
ANTIMONY	206.80	0	0	0	0.000670	0
ARSENIC	189.00	0	0	0	0.00109	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	-0.00169	0
CADMIUM	228.80	0	0	0	0.0000220	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0.000160	0	0
COBALT	228.60	0	0	0	-0.000983	0
COPPER	224.70	0	0	0	0.00274	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0	0	-0.00183	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	-0.00190	-0.0110	0
MANGANESE	257.60	0	0.00000900	0	-0.0000720	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0.00800	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0.000156	0
SILICON	212.40	0	0	0	0.0187	0
SILVER	328.00	0	0	0	-0.0000440	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	-0.000153	0
VANADIUM	292.40	0	0	0	-0.00778	0
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 2300671
Report generated: 02/07/2012 12:43

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12010767 **Date:** 12/30/2011
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	NI	SB	SN	SR	TI
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0	0	-0.00840	0	-0.000990
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	-0.00160
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	-0.000128	0	0	0	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0.0000550
COBALT	228.60	0.000175	0	0	0	0.000950
COPPER	224.70	-0.0120	0	0	0	0.000269
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000110	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	-0.00290
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	-0.00620
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	-0.00170
TIN	189.90	0	0	0	0	-0.00220
TITANIUM	337.30	0	-0.00180	0	0	0
VANADIUM	292.40	0	0	0	0	0.000824
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 2300671
Report generated: 02/07/2012 12:43

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12010767 **Date:** 12/30/2011
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	V	ZN	ZR
ALUMINUM	308.20	0.00300	0	0
ANTIMONY	206.80	-0.00438	0	0
ARSENIC	189.00	0.000107	0	0
BARIUM	455.40	0	0	0
BERYLLIUM	313.00	0.000170	0	0
BORON	249.70	0	0	0
CADMIUM	228.80	0.0000820	0	0
CALCIUM	422.70	0	0	0
CHROMIUM	267.70	-0.00180	-0.000740	
COBALT	228.60	0.0000200	0	0
COPPER	224.70	0	0	
IRON	261.20	0	0	0
LEAD	220.30	-0.000126	0	0
LITHIUM	670.80	0	0	0
MAGNESIUM	279.10	0	0	0
MANGANESE	257.60	-0.00120	0	0
MOLYBDENUM	202.03	-0.000110	0	0
NICKEL	231.60	0	0	0
PHOSPHORUS	214.90	-0.00500	0	0.00200
POTASSIUM	766.40	0	0	0
SELENIUM	196.00	0	0	0
SILICON	212.40	0	0	0
SILVER	328.00	-0.00617	0	0
SODIUM	589.50	0	0	0
STRONTIUM	407.80	0	0	0
THALLIUM	190.80	-0.0282	0	0
TIN	189.90	0	0	0
TITANIUM	337.30	-0.000250	0	0
VANADIUM	292.40	0	0	
ZINC	206.20	0	0	0
ZIRCONIUM	339.20	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 2300671
Report generated: 02/07/2012 12:43

Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L12010767 **Date:** 12/29/2011
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Aluminum	10.00	810.0
Antimony	10.00	90.0
Arsenic	10.00	90.0
Barium	10.00	81.0
Beryllium	15.00	4.5
Boron	10.00	90.0
Cadmium	10.00	16.2
Calcium	10.00	900.0
Chromium	10.00	45.0
Cobalt	10.00	9.0
Copper	10.00	180.0
Iron	5.00	900.0
Lead	10.00	180.0
Lithium	10.00	90.0
Magnesium	15.00	900.0
Manganese	15.00	180.0
Molybdenum	10.00	9.0
Nickel	10.00	90.0
Phosphorus	10.00	900.0
Potassium	10.00	315.0
Selenium	10.00	90.0
Silicon	10.00	90.0
Silver	5.00	9.0
Sodium	10.00	315.0
Strontium	10.00	4.5
Thallium	10.00	9.0
Tin	10.00	90.0
Titanium	15.00	90.0
Vanadium	10.00	90.0
Zinc	10.00	45.0
Zirconium	10.00	45.0

Comments:
All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 2300670
Report generated: 02/07/2012 12:43

2.1.1.3 Raw Data

Sample Name: S0 Acquired: 2/7/2012 8:41:42 Type: Cal
Method: ICP-THERMO2_6010_200.7(v1729) Mode: IR Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00135**	**.00112**	**-.00030**	**.00101**	**.01093**	**-.00187**	**-.00498**
Stddev	.00060	.00017	.00005	.00021	.00047	.00004	.00007
%RSD	44.515	14.684	15.361	20.471	4.3317	2.2070	1.3790
#1	-.00111	.00101	-.00028	.00107	.01091	-.00190	-.00501
#2	-.00091	.00105	-.00035	.00119	.01047	-.00182	-.00503
#3	-.00203	.00131	-.00026	.00078	.01142	-.00188	-.00491

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00019**	**.00002**	**.00246**	**.00093**	**.00015**	**.00320**	**.00038**
Stddev	.00006	.00009	.00017	.00002	.00004	.00045	.00094
%RSD	30.217	566.22	6.7844	2.1634	23.382	13.998	248.43
#1	.00023	.00010	.00264	.00093	.00011	.00343	.00079
#2	.00012	-.00007	.00243	.00092	.00016	.00350	.00104
#3	.00021	.00002	.00231	.00096	.00018	.00269	-.00070

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00008**	**.00030**	**.00004**	**-.01615**	**-.00074**	**.00023**	**-.00044**
Stddev	.00009	.00006	.00001	.00041	.00011	.00004	.00009
%RSD	117.81	20.242	24.255	2.5498	15.564	18.322	20.350
#1	.00001	.00038	.00004	-.01661	-.00084	.00022	-.00033
#2	-.00007	.00026	.00003	-.01583	-.00075	.00027	-.00050
#3	-.00017	.00028	.00004	-.01599	-.00061	.00019	-.00047

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00793**	**.00014**	**.00033**	**-.00002**	**-.00024**	**.00122**	**.00010**
Stddev	.00059	.00001	.00003	.00003	.00009	.00001	.00002
%RSD	7.3853	9.3736	9.5490	148.74	35.888	1.2156	20.596
#1	-.00851	.00015	.00035	-.00005	-.00031	.00123	.00010
#2	-.00734	.00015	.00030	-.00002	-.00014	.00120	.00008
#3	-.00795	.00013	.00035	.00001	-.00027	.00123	.00012

Approved: February 08, 2012

Erin D. Long

Sample Name: S0 Acquired: 2/7/2012 8:41:42 Type: Cal
Method: ICP-THERMO2_6010_200.7(v1729) Mode: IR Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00196	-.00127	-.00015	-.00143	.00154	-.00367
Stddev	.00033	.00017	.00001	.00023	.00005	.00028
%RSD	16.929	13.618	8.0988	16.188	3.2752	7.5838
#1	.00225	-.00140	-.00017	-.00164	.00153	-.00361
#2	.00160	-.00134	-.00015	-.00118	.00149	-.00343
#3	.00204	-.00107	-.00014	-.00146	.00159	-.00398

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22182.	18307.
Stddev	187.	167.
%RSD	.84313	.91146
#1	22040.	18454.
#2	22111.	18126.
#3	22394.	18342.

Approved: February 08, 2012

Sample Name: S1 Acquired: 2/7/2012 8:45:08 Type: Cal
Method: ICP-THERMO2_6010_200.7(v1729) Mode: IR Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca4226	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00150**	**.00202**	**.02691**	**.00266**	**-.00125**	**.00051**	**.00102**
Stddev	.00087	.00016	.00041	.00029	.00013	.00002	.00008
%RSD	58.063	8.0201	1.5274	10.772	10.557	3.0854	7.6270
#1	.00067	.00188	.02683	.00234	-.00134	.00053	.00095
#2	.00142	.00199	.02736	.00289	-.00110	.00050	.00100
#3	.00241	.00220	.02655	.00274	-.00132	.00051	.00110

Elem	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00558**	**.00183**	**.00139**	**.01221**	**.00574**	**.00105**	**.00181**
Stddev	.00024	.00006	.00005	.00099	.00060	.00009	.00008
%RSD	4.2622	3.3857	3.2971	8.0830	10.412	8.8266	4.6312
#1	.00559	.00184	.00142	.01316	.00631	.00115	.00188
#2	.00581	.00177	.00134	.01119	.00580	.00104	.00183
#3	.00533	.00190	.00142	.01228	.00512	.00096	.00171

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Rb7800	S_1807
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00170**	**.01658**	**-.00008**	**.00020**	**.00002**	**-.00675**	**.00018**
Stddev	.00005	.00065	.00003	.00004	.00016	.00011	.00002
%RSD	3.0780	3.9446	41.436	20.187	730.60	1.5610	13.907
#1	.00176	.01686	-.00007	.00025	.00020	-.00670	.00020
#2	.00166	.01705	-.00011	.00020	-.00003	-.00688	.00017
#3	.00168	.01583	-.00005	.00017	-.00010	-.00669	.00016

Elem	S_1820	Sb2068	Si2124	Sn1899	Sr4077	Ti3372	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00029**	**.00043**	**.00305**	**.00130**	**.02893**	**.00052**	**.00973**
Stddev	.00002	.00001	.00005	.00002	.00012	.00030	.00044
%RSD	6.3627	2.9057	1.5556	1.6978	.41548	58.348	4.5329
#1	.00027	.00044	.00309	.00128	.02885	.00076	.00975
#2	.00028	.00042	.00306	.00132	.02886	.00018	.01016
#3	.00031	.00042	.00300	.00130	.02907	.00061	.00928

Approved: February 08, 2012

Erin D. Long

Sample Name: S1 Acquired: 2/7/2012 8:45:08 Type: Cal
Method: ICP-THERMO2_6010_200.7(v1729) Mode: IR Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Zn2062	Zr3391
Units	Cts/S	Cts/S
Avg	.00797	-.00354
Stddev	.00004	.00040
%RSD	.47264	11.153
#1	.00798	-.00311
#2	.00801	-.00389
#3	.00793	-.00363
Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22545.	19285.
Stddev	161.	156.
%RSD	.71417	.80648
#1	22723.	19177.
#2	22505.	19214.
#3	22408.	19463.

Approved: February 08, 2012

Sample Name: S2 Acquired: 2/7/2012 8:48:36 Type: Cal
Method: ICP-THERMO2_6010_200.7(v1729) Mode: IR Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00468**	**.00313**	**.00002**	**.00356**	**.04496**	**.00776**	**.00142**
Stddev	.00018	.00031	.00006	.00040	.00071	.00007	.00013
%RSD	3.9132	9.8412	258.83	11.244	1.5773	.96177	9.0574
#1	.00470	.00297	.00007	.00324	.04575	.00780	.00154
#2	.00449	.00349	.00004	.00401	.04438	.00780	.00128
#3	.00486	.00294	-.00004	.00343	.04475	.00767	.00144

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00087**	**.00213**	**.00862**	**.00289**	**.00265**	**.02197**	**.01017**
Stddev	.00006	.00011	.00029	.00005	.00010	.00111	.00200
%RSD	7.0855	5.2195	3.3311	1.6847	3.8881	5.0632	19.628
#1	.00082	.00226	.00864	.00284	.00274	.02069	.00803
#2	.00094	.00210	.00833	.00287	.00267	.02251	.01198
#3	.00084	.00204	.00890	.00294	.00253	.02270	.01051

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00197**	**.00331**	**.00343**	**.04799**	**.00055**	**.00014**	**.00043**
Stddev	.00006	.00004	.00001	.00083	.00005	.00005	.00011
%RSD	3.1697	1.2608	.31170	1.7265	8.9902	38.000	25.758
#1	.00197	.00326	.00344	.04706	.00061	.00019	.00051
#2	.00190	.00332	.00343	.04863	.00052	.00013	.00048
#3	.00202	.00334	.00342	.04829	.00053	.00009	.00031

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00675**	**.00028**	**.00030**	**.00089**	**-.00007**	**.00500**	**.00258**
Stddev	.00097	.00002	.00004	.00001	.00001	.00003	.00004
%RSD	14.351	8.1234	12.232	1.2334	18.110	.67482	1.3590
#1	-.00777	.00028	.00033	.00091	-.00005	.00496	.00262
#2	-.00663	.00030	.00026	.00088	-.00008	.00500	.00255
#3	-.00585	.00026	.00029	.00090	-.00007	.00503	.00258

Approved: February 08, 2012

Sample Name: S2 Acquired: 2/7/2012 8:48:36 Type: Cal
Method: ICP-THERMO2_6010_200.7(v1729) Mode: IR Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.05712	.00267	.00017	.02143	.01478	-.00383
Stddev	.00007	.00026	.00001	.00015	.00012	.00052
%RSD	.11543	9.7205	7.2915	.71515	.84194	13.477
#1	.05719	.00288	.00016	.02160	.01473	-.00426
#2	.05709	.00238	.00018	.02130	.01468	-.00326
#3	.05707	.00275	.00017	.02139	.01492	-.00397

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21627.	18374.
Stddev	73.	55.
%RSD	.33591	.29805
#1	21602.	18407.
#2	21709.	18311.
#3	21571.	18405.

Approved: February 08, 2012

Sample Name: S3 Acquired: 2/7/2012 8:52:02 Type: Cal
Method: ICP-THERMO2_6010_200.7(v1729) Mode: IR Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.29160	.09348	.01469	.13386	1.6824	.48426	.29983
Stddev	.00152	.00025	.00012	.00042	.0022	.00497	.00049
%RSD	.52135	.26781	.80598	.31517	.12943	1.0272	.16447
#1	.29308	.09344	.01482	.13367	1.6823	.48933	.29982
#2	.29167	.09375	.01467	.13434	1.6803	.48406	.30033
#3	.29004	.09325	.01458	.13357	1.6846	.47938	.29935

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03910	.09618	.30332	.08697	.11750	.98064	.40563
Stddev	.00012	.00029	.00247	.00035	.00038	.00359	.00206
%RSD	.31709	.29687	.81517	.39834	.32033	.36630	.50896
#1	.03923	.09644	.30506	.08736	.11721	.98416	.40782
#2	.03910	.09623	.30440	.08683	.11738	.98077	.40371
#3	.03898	.09588	.30049	.08671	.11793	.97698	.40537

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.08964	.14986	.17040	3.1779	.06143	.00019	.03937
Stddev	.00027	.00072	.00024	.0207	.00018	.00002	.00021
%RSD	.29787	.48084	.13998	.65061	.28707	11.965	.52251
#1	.08994	.15013	.17047	3.1965	.06163	.00018	.03954
#2	.08956	.15040	.17060	3.1815	.06136	.00016	.03942
#3	.08942	.14904	.17014	3.1556	.06129	.00021	.03914

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00676	.00666	.00020	.04325	.00805	.18524	.11990
Stddev	.00034	.00001	.00004	.00018	.00005	.00067	.00059
%RSD	5.0084	.16108	22.069	.40521	.58396	.36102	.49438
#1	-.00712	.00666	.00018	.04345	.00809	.18598	.12024
#2	-.00645	.00665	.00017	.04320	.00800	.18506	.12025
#3	-.00670	.00667	.00025	.04311	.00806	.18467	.11921

Approved: February 08, 2012

Sample Name: S3 Acquired: 2/7/2012 8:52:02 Type: Cal
Method: ICP-THERMO2_6010_200.7(v1729) Mode: IR Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.6701**	**.19481**	**.01433**	**1.1196**	**.63700**	**-.00036**
Stddev	.0153	.00050	.00007	.0056	.00104	.00024
%RSD	.57166	.25743	.47986	.50084	.16351	65.240
#1	2.6816	.19537	.01441	1.1239	.63809	-.00009
#2	2.6759	.19466	.01431	1.1216	.63687	-.00051
#3	2.6528	.19440	.01427	1.1133	.63602	-.00049

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21579.**	**18828.**
Stddev	56.	260.
%RSD	.26084	1.3804
#1	21581.	18533.
#2	21521.	19024.
#3	21634.	18927.

Approved: February 08, 2012

Erin D. Long

Sample Name: S4 Acquired: 2/7/2012 8:55:17 Type: Cal
Method: ICP-THERMO2_6010_200.7(v1729) Mode: IR Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.58310**	**.18524**	**.02979**	**.26787**	**3.3635**	**.97833**	**.60320**
Stddev	.00082	.00048	.00008	.00081	.0053	.00171	.00073
%RSD	.14133	.25810	.27037	.30086	.15689	.17486	.12142
#1	.58259	.18534	.02972	.26712	3.3645	.97804	.60383
#2	.58405	.18473	.02978	.26873	3.3682	.98016	.60337
#3	.58266	.18567	.02988	.26777	3.3578	.97678	.60239

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.07807**	**.19099**	**.60415**	**.17199**	**.23403**	**1.9555**	**.80774**
Stddev	.00018	.00047	.00090	.00084	.00013	.0032	.00110
%RSD	.22546	.24386	.14919	.48801	.05610	.16523	.13649
#1	.07787	.19051	.60376	.17115	.23411	1.9586	.80847
#2	.07817	.19102	.60350	.17199	.23388	1.9558	.80828
#3	.07818	.19144	.60518	.17283	.23409	1.9522	.80647

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.17782**	**.29667**	**.33986**	**6.3143**	**.12283**	**.00032**	**.07810**
Stddev	.00068	.00167	.00042	.0260	.00016	.00011	.00016
%RSD	.38174	.56350	.12216	.41106	.13281	35.126	.20431
#1	.17807	.29860	.33976	6.3442	.12264	.00026	.07809
#2	.17833	.29562	.33950	6.2980	.12290	.00025	.07794
#3	.17705	.29579	.34031	6.3006	.12294	.00045	.07826

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00800**	**.01285**	**.00017**	**.08605**	**.01631**	**.36670**	**.23739**
Stddev	.00049	.00004	.00002	.00018	.00015	.00094	.00045
%RSD	6.1486	.30965	9.4306	.21054	.92120	.25571	.18789
#1	-.00756	.01282	.00017	.08584	.01616	.36587	.23688
#2	-.00791	.01290	.00018	.08613	.01629	.36650	.23759
#3	-.00853	.01284	.00015	.08617	.01646	.36772	.23770

Approved: February 08, 2012

Sample Name: S4 Acquired: 2/7/2012 8:55:17 Type: Cal
Method: ICP-THERMO2_6010_200.7(v1729) Mode: IR Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.3280**	**.38800**	**.02815**	**2.2510**	**1.2699**	**.00105**
Stddev	.0215	.00111	.00003	.0054	.0020	.00055
%RSD	.40329	.28501	.09262	.24119	.15937	52.669
#1	5.3527	.38926	.02812	2.2454	1.2679	.00110
#2	5.3144	.38756	.02816	2.2562	1.2699	.00047
#3	5.3168	.38718	.02816	2.2513	1.2720	.00157

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20509.**	**18248.**
Stddev	65.	51.
%RSD	.31772	.27697
#1	20561.	18292.
#2	20436.	18193.
#3	20530.	18260.

Approved: February 08, 2012

Erin D. Long

Sample Name: ICV Acquired: 2/7/2012 8:58:36 Type: QC
Method: ICP-THERMO2_6010_200.7(v1729) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40067	10.060	.40140	.50492	1.0117	.05012	9.9338
Stddev	.00499	.019	.00199	.00663	.0021	.00040	.0403
%RSD	1.2463	.18447	.49456	1.3133	.20523	.79874	.40546
#1	.40627	10.049	.40365	.51200	1.0141	.05047	9.9783
#2	.39667	10.050	.39991	.49885	1.0107	.04968	9.8999
#3	.39906	10.081	.40064	.50392	1.0103	.05021	9.9233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05040	.20278	.50616	.51295	4.0440	50.392	1.0054
Stddev	.00011	.00018	.00554	.00055	.0046	.173	.0034
%RSD	.20898	.08726	1.0950	.10628	.11267	.34358	.33752
#1	.05045	.20298	.51141	.51306	4.0468	50.590	1.0093
#2	.05028	.20266	.50036	.51236	4.0465	50.315	1.0030
#3	.05047	.20269	.50671	.51343	4.0388	50.270	1.0039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.020	.50494	.97674	50.263	.50738	F -19.211	.50934
Stddev	.023	.00326	.00053	.119	.00028	14.122	.00065
%RSD	.22805	.64537	.05377	.23738	.05421	73.512	.12801
#1	10.047	.50870	.97655	50.396	.50712	-24.148	.50865
#2	10.008	.50293	.97633	50.164	.50736	-3.2828	.50942
#3	10.006	.50320	.97733	50.230	.50767	-30.201	.50994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-5.0000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: ICV Acquired: 2/7/2012 8:58:36 Type: QC
Method: ICP-THERMO2_6010_200.7(v1729) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 5.5529	10.161	F 11.763	1.2153	.40245	5.0100	1.0374
Stddev	.6345	.017	.733	.0007	.00150	.0049	.0004
%RSD	11.426	.17148	6.2271	.05856	.37274	.09683	.03355
#1	5.4922	10.143	11.291	1.2159	.40294	5.0049	1.0375
#2	4.9510	10.177	12.607	1.2155	.40077	5.0106	1.0377
#3	6.2156	10.165	11.392	1.2145	.40365	5.0146	1.0370
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	-5.0000%		5.0000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99884	1.0003	.51428	.99782	1.0164	F .61284
Stddev	.00172	.0012	.00203	.00956	.0013	.05598
%RSD	.17183	.11761	.39543	.95767	.13207	9.1347
#1	1.0007	1.0017	.51629	1.0071	1.0151	.66722
#2	.99732	.99939	.51433	.98797	1.0163	.55539
#3	.99850	.99998	.51223	.99842	1.0178	.61589
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-5.0000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20644.	18117.
Stddev	122.	83.
%RSD	.59186	.45778
#1	20577.	18028.
#2	20785.	18130.
#3	20570.	18192.

Approved: February 08, 2012

Erin D. Long

Sample Name: ICB Acquired: 2/7/2012 9:01:50 Type: QC
Method: ICP-THERMO2_6010_200.7(v1729) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	-.02156	.00065	.00331	.00030	-.00003	-.00556
Stddev	.00035	.03153	.00162	.00116	.00037	.00002	.00431
%RSD	170.91	146.28	247.65	34.967	124.83	79.277	77.555
#1	.00016	.01327	.00184	.00406	.00049	-.00001	-.00240
#2	-.00053	-.02977	.00131	.00389	-.00013	-.00003	-.01047
#3	-.00024	-.04817	-.00119	.00198	.00053	-.00005	-.00381
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00005	.00036	.00040	.00205	.09395	.00301
Stddev	.00015	.00011	.00035	.00027	.00775	.03212	.00044
%RSD	578.24	228.51	97.574	67.461	378.42	34.189	14.432
#1	-.00019	.00003	.00032	.00063	.00019	.13030	.00252
#2	.00000	.00016	.00003	.00048	.01056	.06940	.00334
#3	.00011	-.00005	.00072	.00010	-.00461	.08215	.00318
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00305	-.00017	.00048	-.02297	-.00077	F 11.896	-.00091
Stddev	.02589	.00009	.00019	.01624	.00038	2.718	.00057
%RSD	848.94	53.785	38.240	70.719	49.217	22.845	62.224
#1	-.00487	-.00006	.00035	-.00422	-.00034	10.252	-.00037
#2	.03197	-.00022	.00041	-.03203	-.00090	15.033	-.00151
#3	-.01795	-.00023	.00069	-.03266	-.00107	10.404	-.00086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						1.1000	
Low Limit						-1.0000	

Approved: February 08, 2012

Erin D. Long

Sample Name: ICB Acquired: 2/7/2012 9:01:50 Type: QC
Method: ICP-THERMO2_6010_200.7(v1729) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -1.8900	-.09107	F 4.2008	.00045	-.00115	.00174	.00066
Stddev	1.7525	.02263	.7547	.00188	.00091	.00046	.00019
%RSD	92.726	24.852	17.966	421.58	79.077	26.534	28.521
#1	-2.2365	-.11534	4.5249	-.00092	-.00018	.00132	.00088
#2	-3.4434	-.07054	4.7393	.00259	-.00129	.00166	.00054
#3	.00989	-.08734	3.3381	-.00033	-.00197	.00223	.00057
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	1.0400		1.0400				
Low Limit	-1.2000		-1.0400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00055	-.00010	-.00003	.00016	.00466
Stddev	.00006	.00225	.00044	.00008	.00007	.09135
%RSD	48.321	405.95	452.60	241.05	41.802	1960.0
#1	.00009	-.00193	-.00057	-.00004	.00022	-.09941
#2	.00010	.00113	-.00002	.00005	.00016	.04180
#3	.00021	.00246	.00030	-.00011	.00009	.07158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21556.	17610.
Stddev	202.	99.
%RSD	.93837	.56201
#1	21777.	17724.
#2	21380.	17553.
#3	21512.	17552.

Approved: February 08, 2012

Sample Name: LLICV Acquired: 2/7/2012 9:05:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1729) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01026	-.01467	.00173	.00128	.01080	.00193	.01792
Stddev	.00053	.01175	.00083	.00061	.00014	.00006	.00362
%RSD	5.1866	80.103	47.828	48.019	1.2828	3.3653	20.173
#1	.00966	-.02395	.00222	.00175	.01068	.00186	.01379
#2	.01068	-.00146	.00220	.00058	.01095	.00194	.02051
#3	.01044	-.01862	.00078	.00151	.01077	.00198	.01948
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00978	.02117	.02124	.02521	-.00026	.02797	.00078
Stddev	.00014	.00023	.00073	.00077	.00360	.04895	.00115
%RSD	1.4197	1.0655	3.4151	3.0437	1384.4	175.01	146.83
#1	.00981	.02129	.02069	.02607	-.00094	-.00536	.00207
#2	.00991	.02130	.02097	.02496	-.00347	.00510	-.00011
#3	.00964	.02091	.02206	.02460	.00363	.08417	.00038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01613	.01131	.00006	.51706	.42538	5.2474	.00165
Stddev	.02272	.00038	.00031	.02980	.00122	35.431	.00091
%RSD	140.86	3.3266	492.26	5.7632	.28739	675.22	55.002
#1	.04204	.01164	-.00013	.54773	.42624	24.041	.00060
#2	-.00035	.01090	.00042	.51524	.42591	-35.621	.00216
#3	.00669	.01140	-.00010	.48822	.42398	27.322	.00218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: LLICV Acquired: 2/7/2012 9:05:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1729) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.4172**	F **-.09578**	**2.8212**	**.00024**	**-.00138**	**-.00006**	**.00161**
Stddev	4.8412	.04866	2.5977	.00034	.00254	.00029	.00004
%RSD	57.515	50.802	92.078	143.24	183.61	501.89	2.5816
#1	2.9618	-.06019	4.2849	.00059	-.00196	.00006	.00159
#2	12.201	-.15122	4.3569	-.00009	.00139	-.00038	.00165
#3	10.088	-.07592	-.17809	.00021	-.00358	.00015	.00158
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000					
Low Limit		-.00400					

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**-.00141**	**-.00119**	**.01141**	**.02194**	**.11030**
Stddev	.00004	.00050	.00088	.00066	.00013	.06021
%RSD	57.117	35.670	74.334	5.7840	.60783	54.592
#1	.00009	-.00128	-.00048	.01065	.02179	.14707
#2	.00002	-.00197	-.00090	.01176	.02205	.14301
#3	.00008	-.00099	-.00218	.01182	.02197	.04081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22451.**	**18829.**
Stddev	335.	158.
%RSD	1.4902	.83647
#1	22796.	18986.
#2	22430.	18671.
#3	22128.	18829.

Approved: February 08, 2012

Erin D. Long

Sample Name: ICSA Acquired: 2/7/2012 9:08:42 Type: QC
Method: ICP-THERMO2_6010_200.7(v1729) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00082	252.24	-.00344	.05797	.00041	-.00001	250.19
Stddev	.00039	1.08	.00141	.00082	.00018	.00002	.54
%RSD	47.159	.42645	40.897	1.4084	44.403	282.23	.21544
#1	-.00093	251.02	-.00278	.05789	.00055	.00000	249.61
#2	-.00114	253.04	-.00248	.05719	.00020	-.00003	250.67
#3	-.00039	252.66	-.00505	.05882	.00047	.00001	250.29
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.00012	.00054	-.00001	98.392	.03043	.01480
Stddev	.00010	.00030	.00074	.00025	.250	.02425	.00101
%RSD	468.78	248.43	136.36	1732.4	.25448	79.713	6.8525
#1	-.00007	-.00046	.00087	-.00030	98.258	.04884	.01503
#2	.00013	-.00003	.00106	.00014	98.681	.00294	.01568
#3	.00000	.00012	-.00031	.00012	98.238	.03950	.01369
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	247.02	-.00039	-.00034	.03900	-.00060	F 834.90	-.00219
Stddev	.38	.00018	.00035	.01308	.00036	53.98	.00099
%RSD	.15255	46.449	103.73	33.531	59.777	6.4653	45.084
#1	246.95	-.00020	-.00037	.05015	-.00063	825.38	-.00112
#2	247.43	-.00055	.00003	.02461	-.00095	786.31	-.00240
#3	246.68	-.00041	-.00068	.04224	-.00023	893.00	-.00306
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.50000	
Low Limit						-.50000	

Approved: February 08, 2012

Sample Name: ICSA Acquired: 2/7/2012 9:08:42 Type: QC
Method: ICP-THERMO2_6010_200.7(v1729) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.927	F 237.24	F 27.689	-.00390	-.00295	.22944	.00094
Stddev	2.173	.31	.438	.00104	.00321	.00039	.00027
%RSD	16.808	.13028	1.5824	26.747	108.86	.16858	28.481
#1	14.275	237.55	28.190	-.00311	.00075	.22911	.00073
#2	14.086	237.23	27.501	-.00508	-.00460	.22986	.00084
#3	10.421	236.93	27.377	-.00351	-.00499	.22935	.00124
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.04000	.04000	.04000				
Low Limit	-.04000	-.04000	-.04000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00385	-.00744	.00269	-.00087	-.00139	F -3.6199
Stddev	.00009	.00106	.00109	.00009	.00007	.1209
%RSD	2.3283	14.200	40.461	10.950	5.0266	3.3407
#1	.00375	-.00668	.00224	-.00089	-.00134	-3.6506
#2	.00393	-.00865	.00394	-.00094	-.00147	-3.4866
#3	.00385	-.00700	.00190	-.00076	-.00137	-3.7226
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20572.	18414.
Stddev	78.	164.
%RSD	.38034	.89204
#1	20495.	18421.
#2	20652.	18246.
#3	20568.	18574.

Approved: February 08, 2012

Sample Name: ICSAB Acquired: 2/7/2012 9:26:47 Type: QC
Method: ICP-THERMO2_6010_200.7(v1730) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50658	250.95	.24341	.03622	.24612	.25469	247.59
Stddev	.00896	1.67	.00357	.00039	.00131	.00451	1.58
%RSD	1.7687	.66488	1.4666	1.0769	.53366	1.7690	.63652
#1	.51200	249.07	.23993	.03654	.24461	.25713	245.83
#2	.51149	251.52	.24706	.03633	.24676	.25745	248.10
#3	.49623	252.25	.24324	.03579	.24700	.24949	248.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45193	.23729	.25468	.24410	97.242	5.0790	.00944
Stddev	.00264	.00116	.00509	.00271	.506	.0484	.00289
%RSD	.58448	.48869	2.0004	1.1115	.52051	.95327	30.561
#1	.45282	.23771	.25819	.24485	96.686	5.1305	.00687
#2	.45402	.23817	.25701	.24635	97.365	5.0344	.00889
#3	.44896	.23597	.24883	.24108	97.676	5.0720	.01256
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	242.95	.23799	-.00062	5.1172	.48245	F 748.96	.48253
Stddev	1.37	.00186	.00004	.0342	.00218	33.12	.00191
%RSD	.56441	.78010	6.7856	.66904	.45223	4.4220	.39682
#1	241.45	.23584	-.00062	5.0827	.48341	773.37	.48385
#2	243.24	.23899	-.00058	5.1176	.48399	711.26	.48340
#3	244.14	.23913	-.00067	5.1512	.47995	762.25	.48033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.50000	
Low Limit						-.50000	

Approved: February 08, 2012

Erin D. Long

Sample Name: ICSAB Acquired: 2/7/2012 9:26:47 Type: QC
Method: ICP-THERMO2_6010_200.7(v1730) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 17.441	F 237.58	F 25.088	.48377	.24061	.01015	.00051
Stddev	10.960	1.15	2.095	.00294	.00365	.00288	.00038
%RSD	62.839	.48274	8.3485	.60776	1.5163	28.373	73.358
#1	18.373	238.32	22.733	.48640	.23782	.01255	.00030
#2	6.0452	238.17	25.788	.48060	.24474	.00696	.00029
#3	27.905	236.26	26.743	.48431	.23926	.01094	.00095
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.60000	.60000	.60000				
Low Limit	.40000	.40000	.40000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00301	-.00640	.45734	.25123	.49289	F -3.5861
Stddev	.00006	.00077	.00311	.00388	.00283	.1559
%RSD	2.1283	12.012	.68074	1.5428	.57372	4.3475
#1	.00307	-.00722	.45750	.25368	.49433	-3.4795
#2	.00300	-.00569	.46037	.25326	.49472	-3.7650
#3	.00295	-.00629	.45415	.24676	.48964	-3.5137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20158.	19388.
Stddev	185.	160.
%RSD	.91988	.82526
#1	20198.	19518.
#2	19956.	19435.
#3	20321.	19209.

Approved: February 08, 2012

Sample Name: LLICV Acquired: 2/7/2012 9:29:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1730) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	-.00392	.00068	-.00063	-.00010	-.00002	.02902
Stddev	.00061	.01628	.00069	.00054	.00039	.00002	.01794
%RSD	168.08	415.66	102.45	85.557	380.77	112.70	61.830
#1	.00009	-.01612	.00121	-.00125	.00029	-.00001	.02538
#2	-.00106	-.01020	-.00011	-.00024	-.00010	-.00001	.01318
#3	-.00012	.01457	.00092	-.00041	-.00049	-.00005	.04850
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	-.00003	.00036	.00050	.01500	-.03765	.00354
Stddev	.00013	.00020	.00022	.00047	.00985	.04904	.00100
%RSD	339.61	770.76	60.456	93.308	65.688	130.24	28.361
#1	.00011	.00021	.00059	.00029	.00382	-.08810	.00331
#2	-.00012	-.00017	.00017	.00104	.01874	.00983	.00266
#3	-.00011	-.00012	.00031	.00018	.02243	-.03468	.00463
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02251	-.00073	-.00011	-.01433	.04155	33.892	-.00014
Stddev	.00530	.00020	.00015	.03048	.00065	8.831	.00154
%RSD	23.549	27.865	142.33	212.68	1.5645	26.057	1070.3
#1	.01640	-.00079	-.00021	-.04067	.04190	27.427	-.00111
#2	.02518	-.00050	.00007	-.02137	.04195	30.295	-.00094
#3	.02593	-.00089	-.00019	.01905	.04080	43.953	.00163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: LLICV Acquired: 2/7/2012 9:29:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1730) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.5178**	F **-.13497**	**4.0317**	**.00235**	**-.00211**	**.00096**	**.00020**
Stddev	8.6830	.03973	2.2185	.00058	.00225	.00024	.00035
%RSD	192.20	29.436	55.026	24.797	106.25	24.754	177.56
#1	1.1007	-.09932	2.0382	.00291	.00044	.00081	-.00021
#2	14.389	-.17780	3.6352	.00174	-.00379	.00084	.00037
#3	-1.9369	-.12779	6.4217	.00239	-.00299	.00124	.00043
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000					
Low Limit		-.00400					

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**-.00083**	**-.00034**	**.00006**	**.00015**	F **-.20911**
Stddev	.00016	.00109	.00092	.00004	.00014	.07637
%RSD	896.73	131.48	272.33	67.955	89.407	36.523
#1	.00020	-.00196	.00001	.00001	.00003	-.27964
#2	-.00002	-.00074	.00036	.00009	.00030	-.21969
#3	-.00012	.00022	-.00139	.00007	.00013	-.12800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21424.**	**18185.**
Stddev	24.	124.
%RSD	.11031	.68032
#1	21444.	18116.
#2	21429.	18328.
#3	21398.	18110.

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 9:33:27 Type: QC
Method: ICP-THERMO2_6010_200.7(v1730) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39653	9.9820	.40321	.49261	.99278	.04912	9.9872
Stddev	.00454	.0255	.00394	.00591	.00453	.00057	.0554
%RSD	1.1460	.25549	.97613	1.2002	.45585	1.1620	.55497
#1	.39850	9.9924	.39996	.49657	.98939	.04905	9.9420
#2	.39975	9.9529	.40759	.49545	.99792	.04973	10.049
#3	.39133	10.001	.40209	.48582	.99103	.04860	9.9705
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04994	.20158	.49827	.50335	3.9838	49.798	.98739
Stddev	.00029	.00106	.00684	.00375	.0118	.148	.00593
%RSD	.57791	.52378	1.3719	.74569	.29601	.29704	.60018
#1	.04966	.20057	.49926	.49979	3.9723	49.659	.98692
#2	.05024	.20268	.50455	.50727	3.9959	49.953	.99353
#3	.04990	.20150	.49099	.50298	3.9832	49.781	.98171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9595	.49665	.99504	49.923	.50394	F 4.3908	.50842
Stddev	.0669	.00147	.00202	.153	.00186	22.086	.00598
%RSD	.67170	.29554	.20326	.30709	.36887	503.00	1.1756
#1	9.8910	.49539	.99307	49.840	.50188	5.4292	.50152
#2	10.025	.49826	.99711	50.100	.50550	-18.196	.51199
#3	9.9627	.49628	.99493	49.829	.50444	25.939	.51176
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 9:33:27 Type: QC
Method: ICP-THERMO2_6010_200.7(v1730) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 7.5682	10.144	F 11.240	1.2010	.39894	4.9880	1.0082
Stddev	7.0438	.030	1.589	.0091	.00446	.0268	.0037
%RSD	93.070	.29107	14.136	.75899	1.1172	.53725	.37118
#1	15.632	10.114	9.5638	1.1904	.39448	4.9573	1.0041
#2	4.4580	10.173	11.433	1.2064	.40340	5.0067	1.0115
#3	2.6149	10.146	12.724	1.2060	.39894	5.0000	1.0089
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	-10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99277	.98347	.50870	.98855	1.0057	F .88041
Stddev	.00365	.00444	.00151	.01232	.0046	.20705
%RSD	.36717	.45170	.29717	1.2465	.45638	23.518
#1	.99044	.98271	.50810	.98929	1.0015	.86926
#2	.99697	.98825	.51042	1.0005	1.0106	.67916
#3	.99090	.97946	.50758	.97587	1.0051	1.0928
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21131.	18701.
Stddev	252.	329.
%RSD	1.1926	1.7573
#1	21212.	18993.
#2	20848.	18765.
#3	21332.	18345.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 9:36:44 Type: QC
Method: ICP-THERMO2_6010_200.7(v1730) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	-.04217	.00048	.00075	.00010	-.00004	-.00716
Stddev	.00044	.03138	.00272	.00034	.00027	.00002	.00635
%RSD	188.12	74.420	568.11	45.450	268.33	61.439	88.670
#1	-.00066	-.01477	-.00214	.00062	-.00021	-.00002	-.01436
#2	-.00028	-.07640	.00029	.00050	.00026	-.00006	-.00238
#3	.00023	-.03533	.00328	.00114	.00025	-.00003	-.00473
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.00020	-.00038	.00069	.00193	-.00626	-.00066
Stddev	.00007	.00025	.00011	.00086	.00499	.02986	.00038
%RSD	370.12	130.53	28.375	125.26	258.92	476.80	58.723
#1	-.00009	.00047	-.00037	.00083	.00500	-.04020	-.00057
#2	.00003	-.00004	-.00049	.00147	-.00383	.00543	-.00032
#3	.00001	.00016	-.00028	-.00024	.00460	.01598	-.00107
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00155	-.00022	.00069	.00198	-.00079	F 10.325	-.00117
Stddev	.01083	.00002	.00013	.01866	.00080	49.824	.00039
%RSD	699.09	9.7780	18.607	942.73	101.86	482.55	33.161
#1	.01355	-.00023	.00078	-.01641	-.00166	-41.213	-.00137
#2	-.00749	-.00020	.00075	.00145	-.00064	58.237	-.00141
#3	-.00142	-.00024	.00054	.02090	-.00007	13.952	-.00072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						1.0000	
Low Limit						-1.1000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 9:36:44 Type: QC
Method: ICP-THERMO2_6010_200.7(v1730) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.680	-.13310	F 6.3865	.00125	-.00341	.00205	.00034
Stddev	8.718	.03928	4.1589	.00033	.00314	.00208	.00034
%RSD	81.629	29.512	65.120	26.539	91.952	101.43	99.416
#1	20.370	-.08792	4.5450	.00092	-.00383	.00445	.00073
#2	8.1983	-.15225	11.148	.00158	-.00632	.00082	.00024
#3	3.4722	-.15914	3.4663	.00124	-.00009	.00088	.00007
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	1.0000		1.0000				
Low Limit	-1.0000		-1.0000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00020	.00020	-.00003	.00006	F -.12507
Stddev	.00009	.00058	.00117	.00007	.00008	.10574
%RSD	119.09	289.25	592.72	215.19	129.90	84.546
#1	.00002	.00082	.00115	-.00009	-.00003	-.23349
#2	.00019	.00011	-.00111	-.00004	.00013	-.11949
#3	.00003	-.00033	.00056	.00004	.00009	-.02223
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21733.	18098.
Stddev	436.	73.
%RSD	2.0057	.40157
#1	21256.	18035.
#2	21831.	18178.
#3	22111.	18081.

Approved: February 08, 2012

Sample Name: PBW AC Acquired: 2/7/2012 10:20:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388441-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	-.01244	.00054	.00003	-.00026	-.00003	.00844
Stddev	.00010	.02210	.00221	.00095	.00033	.00002	.00829
%RSD	25.560	177.70	410.15	3694.4	125.36	76.103	98.288
#1	-.00027	.01173	.00223	-.00089	-.00049	-.00001	.01786
#2	-.00043	-.01741	-.00196	.00100	.00011	-.00006	.00523
#3	-.00044	-.03162	.00135	-.00003	-.00041	-.00002	.00223
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00003	.00092	.00077	.00909	.10990	-.00292
Stddev	.00009	.00008	.00009	.00054	.00286	.02394	.00166
%RSD	147.64	302.60	9.6065	69.641	31.454	21.780	56.603
#1	.00015	.00008	.00088	.00128	.00781	.12714	-.00389
#2	-.00002	-.00007	.00086	.00083	.00710	.08257	-.00101
#3	.00005	.00007	.00102	.00021	.01236	.11999	-.00387
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01734	-.00022	.00003	.00400	.00147	19.650	.00028
Stddev	.01581	.00073	.00017	.00951	.00074	13.760	.00061
%RSD	91.143	330.66	557.99	237.76	50.331	70.022	214.19
#1	.03194	.00036	.00002	.00932	.00121	31.786	.00094
#2	.01954	-.00104	-.00013	-.00698	.00089	4.7016	-.00026
#3	.00055	.00002	.00021	.00965	.00230	22.464	.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: PBW AC Acquired: 2/7/2012 10:20:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388441-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.668	F -.20833	5.3588	.00096	-.00264	.00810	-.00001
Stddev	4.655	.01188	1.9986	.00125	.00160	.00078	.00019
%RSD	36.745	5.7018	37.295	130.99	60.619	9.6253	2065.5
#1	7.4625	-.20436	7.2265	.00131	-.00083	.00861	.00012
#2	16.430	-.19894	5.5988	-.00044	-.00324	.00848	-.00023
#3	14.111	-.22168	3.2511	.00199	-.00386	.00720	.00008
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000					
Low Limit	-.00400	-.00400					

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00093	.00045	.00042	.00155	.07180
Stddev	.00007	.00114	.00124	.00009	.00034	.10484
%RSD	46.908	121.99	275.82	20.296	21.756	146.02
#1	.00024	.00025	.00042	.00032	.00124	.07645
#2	.00010	.00030	.00171	.00047	.00151	-.03529
#3	.00012	.00225	-.00078	.00047	.00191	.17424
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22400.	18860.
Stddev	99.	188.
%RSD	.44233	.99711
#1	22513.	19014.
#2	22362.	18651.
#3	22326.	18915.

Approved: February 08, 2012

Erin D. Long

Sample Name: LCSW AC Acquired: 2/7/2012 10:23:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388441-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20163	4.9386	.19341	.98120	.48625	.02421	4.8636
Stddev	.00378	.0469	.00055	.01718	.00673	.00044	.0545
%RSD	1.8736	.94917	.28614	1.7509	1.3832	1.8107	1.1208
#1	.19964	4.9162	.19336	.97366	.47989	.02405	4.8067
#2	.19927	4.9072	.19399	.96907	.48558	.02388	4.8686
#3	.20599	4.9925	.19288	1.0009	.49329	.02471	4.9154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02397	.09784	.24997	.24272	1.9363	24.226	.48158
Stddev	.00006	.00020	.00464	.00069	.0228	.231	.00599
%RSD	.24926	.20817	1.8542	.28413	1.1771	.95449	1.2437
#1	.02392	.09761	.24832	.24250	1.9154	24.040	.47584
#2	.02403	.09800	.24639	.24218	1.9330	24.152	.48113
#3	.02394	.09790	.25521	.24350	1.9606	24.485	.48779
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9233	.24158	.49611	24.884	.24859	2.4948	.24878
Stddev	.0429	.00348	.00092	.286	.00052	9.0859	.00099
%RSD	.87045	1.4384	.18468	1.1488	.20877	364.19	.39956
#1	4.8799	.23922	.49510	24.642	.24853	-2.9306	.24962
#2	4.9245	.23996	.49635	24.811	.24810	-2.5691	.24906
#3	4.9656	.24557	.49689	25.199	.24914	12.984	.24768
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: LCSW AC Acquired: 2/7/2012 10:23:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388441-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 18.936	5.0446	4.2211	.58226	.19191	2.5239	.51633
Stddev	3.054	.0699	1.0890	.00176	.00186	.0075	.00057
%RSD	16.130	1.3864	25.800	.30223	.96915	.29714	.11127
#1	21.917	5.0356	4.0774	.58214	.19238	2.5153	.51685
#2	15.813	4.9796	5.3748	.58407	.18985	2.5274	.51571
#3	19.078	5.1186	3.2111	.58056	.19348	2.5291	.51641
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000						
Low Limit	-.00400						

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48104	.47477	.25235	.48642	.49544	.50197
Stddev	.00704	.00702	.00105	.00737	.00073	.03079
%RSD	1.4634	1.4790	.41756	1.5150	.14645	6.1345
#1	.47476	.46768	.25174	.48393	.49511	.48772
#2	.47973	.47490	.25175	.48061	.49493	.48088
#3	.48865	.48173	.25357	.49471	.49627	.53730
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22183.	19329.
Stddev	125.	301.
%RSD	.56292	1.5549
#1	22272.	19060.
#2	22237.	19275.
#3	22040.	19653.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201051509 Acquired: 2/7/2012 10:27:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00070	-.01106	-.00240	.00323	-.00015	-.00003	.01609
Stddev	.00056	.03196	.00060	.00086	.00009	.00001	.00459
%RSD	78.872	289.00	25.152	26.771	62.506	26.079	28.533
#1	-.00111	-.04404	-.00233	.00364	-.00011	-.00004	.01980
#2	-.00007	.01976	-.00303	.00380	-.00009	-.00004	.01752
#3	-.00094	-.00889	-.00183	.00223	-.00026	-.00002	.01096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00039	.00122	.00054	.03834	.00821	-.00281
Stddev	.00003	.00027	.00002	.00047	.00368	.01958	.00224
%RSD	26.705	68.225	1.3146	87.703	9.6044	238.39	79.686
#1	.00010	-.00009	.00121	.00063	.03408	.02996	-.00374
#2	.00014	-.00058	.00124	.00095	.04049	-.00801	-.00444
#3	.00008	-.00051	.00121	.00003	.04043	.00269	-.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02409	-.00007	.00083	73.896	-.00127	F -9.0696	.00068
Stddev	.02202	.00060	.00007	.176	.00006	17.035	.00145
%RSD	91.401	915.20	8.0279	.23787	4.9149	187.83	213.86
#1	.04296	-.00043	.00082	73.858	-.00129	-28.179	.00040
#2	-.00010	-.00040	.00090	73.742	-.00120	4.5250	-.00061
#3	.02940	.00063	.00077	74.087	-.00132	-3.5547	.00225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201051509 Acquired: 2/7/2012 10:27:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.229	F -.16870	.93894	.00266	-.00174	44.544	.00313
Stddev	1.308	.06572	2.2448	.00019	.00214	.184	.00031
%RSD	12.783	38.956	239.08	7.2608	122.58	.41243	9.9549
#1	8.7889	-.22007	-1.3530	.00259	.00024	44.337	.00300
#2	11.341	-.09464	1.0362	.00251	-.00401	44.607	.00290
#3	10.558	-.19138	3.1335	.00288	-.00146	44.688	.00348
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000					
Low Limit	-.00400	-.00400					

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00414	.00087	.00025	.00004	.10031
Stddev	.00016	.00063	.00060	.00011	.00011	.13005
%RSD	123.49	15.231	69.326	44.117	266.23	129.65
#1	.00012	.00436	.00156	.00038	.00000	.14045
#2	-.00002	.00463	.00052	.00019	.00017	-.04507
#3	.00030	.00343	.00052	.00019	-.00005	.20556
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22213.	18771.
Stddev	413.	239.
%RSD	1.8588	1.2711
#1	21737.	19016.
#2	22450.	18758.
#3	22453.	18539.

Approved: February 08, 2012

Sample Name: L1201051509SDL Acquired: 2/7/2012 10:30:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388487-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	-.01816	-.00012	.00155	-.00100	-.00003	.01704
Stddev	.00025	.00581	.00035	.00158	.00005	.00002	.01368
%RSD	111.21	31.980	294.19	102.00	5.1780	70.989	80.289
#1	-.00010	-.01268	-.00023	.00330	-.00096	-.00001	.00229
#2	-.00007	-.01755	-.00040	.00024	-.00098	-.00003	.01951
#3	-.00052	-.02424	.00027	.00110	-.00106	-.00005	.02932
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.00001	.00035	.00034	.00109	-.05028	.00194
Stddev	.00013	.00014	.00038	.00056	.00560	.03320	.00381
%RSD	291.74	1107.6	108.65	161.43	512.34	66.021	196.95
#1	-.00001	-.00017	.00040	-.00012	-.00163	-.06027	.00431
#2	-.00005	.00009	.00070	.00019	.00754	-.01324	-.00246
#3	.00020	.00005	-.00005	.00096	-.00262	-.07733	.00396
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01340	-.00006	-.00010	15.051	-.00037	F -4.8731	-.00033
Stddev	.01343	.00028	.00017	.146	.00040	17.048	.00105
%RSD	100.22	457.80	174.56	.96681	109.60	349.83	314.33
#1	.02061	.00023	-.00017	15.217	-.00043	-24.350	-.00120
#2	.02169	-.00008	.00010	14.991	.00006	7.3386	-.00064
#3	-.00210	-.00033	-.00023	14.945	-.00073	2.3919	.00083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201051509SDL Acquired: 2/7/2012 10:30:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388487-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.822	F -.14880	8.7178	.00247	.00023	8.9392	.00096
Stddev	5.076	.02094	2.5200	.00090	.00095	.0405	.00006
%RSD	46.904	14.070	28.906	36.545	422.00	.45266	6.4326
#1	5.2669	-.14265	9.9055	.00285	-.00076	8.9813	.00094
#2	11.980	-.17212	10.424	.00312	.00029	8.9357	.00092
#3	15.218	-.13163	5.8234	.00144	.00115	8.9006	.00103
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000					
Low Limit	-.00400	-.00400					

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00071	.00058	.00004	-.00066	F -.16892
Stddev	.00008	.00200	.00026	.00032	.00003	.05495
%RSD	71.360	279.29	44.407	843.06	3.7954	32.529
#1	.00020	-.00021	.00077	-.00008	-.00067	-.22507
#2	.00005	-.00065	.00029	.00039	-.00068	-.11525
#3	.00009	.00301	.00069	-.00021	-.00063	-.16645
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21879.	19810.
Stddev	247.	219.
%RSD	1.1309	1.1076
#1	21867.	19568.
#2	22132.	19995.
#3	21637.	19868.

Approved: February 08, 2012

Sample Name: L1201051509SDL Acquired: 2/7/2012 10:34:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 25 Custom ID2: Custom ID3:
Comment: WG388487-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	-.01337	-.00093	.00119	.00014	-.00004	-.00572
Stddev	.00036	.01426	.00149	.00130	.00022	.00003	.01311
%RSD	127.27	106.70	159.81	108.86	150.43	86.761	229.05
#1	-.00036	-.01992	-.00057	.00221	.00031	-.00006	.00003
#2	-.00060	-.02317	-.00258	.00163	.00022	-.00005	-.02073
#3	.00011	.00299	.00034	-.00027	-.00010	.00000	.00353
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	-.00010	-.00003	.00034	-.00239	.00679	-.00214
Stddev	.00020	.00017	.00051	.00027	.00214	.03223	.00214
%RSD	17044.	175.06	1508.3	80.952	89.578	475.03	100.10
#1	-.00004	-.00010	.00006	.00005	-.00116	.02666	.00029
#2	-.00018	.00008	-.00058	.00059	-.00115	-.03040	-.00377
#3	.00022	-.00026	.00042	.00037	-.00485	.02410	-.00294
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00631	-.00062	-.00028	3.8354	-.00098	F -5.0556	-.00195
Stddev	.00289	.00078	.00005	.0107	.00036	27.843	.00081
%RSD	45.748	124.59	16.800	.27840	36.430	550.74	41.351
#1	.00964	-.00002	-.00030	3.8461	-.00073	-1.6589	-.00248
#2	.00454	-.00150	-.00030	3.8248	-.00139	20.933	-.00102
#3	.00475	-.00034	-.00022	3.8353	-.00082	-34.441	-.00236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201051509SDL Acquired: 2/7/2012 10:34:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 25 Custom ID2: Custom ID3:
Comment: WG388487-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.4300**	F **-.20778**	**8.9066**	**.00165**	**-.00119**	**2.2799**	**.00016**
Stddev	.6818	.04216	.4303	.00197	.00229	.0047	.00016
%RSD	12.555	20.292	4.8312	119.01	193.44	.20760	103.32
#1	4.7196	-.22810	8.8354	.00309	.00086	2.2799	.00010
#2	6.0789	-.23594	8.5163	.00245	-.00075	2.2847	.00034
#3	5.4914	-.15931	9.3681	-.00059	-.00367	2.2752	.00003
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000					
Low Limit		-.00400					

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**-.00054**	**-.00003**	**.00012**	**-.00077**	F **-.15476**
Stddev	.00007	.00038	.00047	.00025	.00003	.22831
%RSD	99.883	70.055	1371.8	209.34	4.4943	147.53
#1	.00014	-.00011	-.00017	.00036	-.00078	-.22671
#2	.00000	-.00071	.00049	.00013	-.00073	.10086
#3	.00008	-.00080	-.00042	-.00013	-.00079	-.33842
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21310.**	**17715.**
Stddev	121.	163.
%RSD	.56910	.91806
#1	21436.	17553.
#2	21193.	17712.
#3	21302.	17879.

Approved: February 08, 2012

Sample Name: L1201076701 Acquired: 2/7/2012 10:37:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388441-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.02041	.00243	.03078	.05948	-.00003	35.467
Stddev	.00028	.02765	.00111	.00151	.00015	.00002	.098
%RSD	92.809	135.49	45.698	4.8983	.24461	67.272	.27716
#1	.00001	.02445	.00192	.03089	.05939	-.00005	35.580
#2	-.00052	-.00904	.00166	.02922	.05940	-.00004	35.413
#3	-.00040	.04581	.00370	.03223	.05965	-.00001	35.407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	-.00014	.00580	.00141	.03196	2.2750	.01255
Stddev	.00002	.00011	.00042	.00039	.00359	.0271	.00146
%RSD	8.5465	78.486	7.2903	27.918	11.234	1.1923	11.621
#1	.00018	-.00016	.00627	.00152	.03556	2.3061	.01368
#2	.00020	-.00002	.00567	.00097	.02838	2.2564	.01090
#3	.00021	-.00023	.00546	.00174	.03193	2.2624	.01308
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.3150	.00108	.00456	21.829	.00029	F -43.021	-.00023
Stddev	.0288	.00063	.00019	.088	.00027	11.686	.00027
%RSD	.54259	58.009	4.0836	.40494	90.866	27.164	115.12
#1	5.3161	.00156	.00436	21.931	-.00001	-39.725	-.00002
#2	5.3433	.00037	.00473	21.784	.00040	-56.001	-.00014
#3	5.2857	.00131	.00460	21.772	.00049	-33.336	-.00053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201076701 Acquired: 2/7/2012 10:37:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388441-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.6806	F 478.54	F -23339.	.00174	.00233	14.056	-.00032
Stddev	11.703	2.69	94.	.00194	.00141	.036	.00040
%RSD	152.37	.56305	.40109	111.62	60.602	.25486	125.32
#1	1.9910	475.62	-23236.	-.00041	.00395	14.015	-.00077
#2	-.08969	479.07	-23360.	.00337	.00157	14.070	-.00003
#3	21.140	480.93	-23420.	.00226	.00146	14.082	-.00015
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.35416	.00001	.00043	.00833	.02269	.09646
Stddev	.00098	.00252	.00134	.00024	.00011	.01747
%RSD	.27721	40883.	310.76	2.8756	.46362	18.113
#1	.35514	-.00254	.00037	.00837	.02275	.08902
#2	.35318	.00249	.00181	.00807	.02256	.08394
#3	.35416	.00006	-.00088	.00854	.02275	.11642
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21942.	18531.
Stddev	20.	224.
%RSD	.09089	1.2106
#1	21927.	18287.
#2	21965.	18728.
#3	21935.	18579.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201076702S Acquired: 2/7/2012 10:40:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388441-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20443	4.9970	.19650	1.0353	.54519	.02488	39.304
Stddev	.00391	.0320	.00180	.0172	.00257	.00041	.050
%RSD	1.9104	.63969	.91738	1.6651	.47222	1.6510	.12612
#1	.19995	4.9750	.19857	1.0160	.54813	.02441	39.272
#2	.20627	4.9824	.19567	1.0492	.54409	.02515	39.278
#3	.20708	5.0337	.19526	1.0407	.54334	.02508	39.361
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02449	.09894	.25793	.24480	1.9555	26.802	.50122
Stddev	.00016	.00051	.00399	.00192	.0159	.044	.00052
%RSD	.63290	.51051	1.5467	.78596	.81359	.16559	.10411
#1	.02445	.09870	.25347	.24327	1.9716	26.752	.50092
#2	.02437	.09859	.26116	.24417	1.9551	26.837	.50182
#3	.02467	.09952	.25916	.24696	1.9398	26.816	.50092
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.005	.24345	.50776	46.489	.24966	F -28.563	.24956
Stddev	.006	.00056	.00152	.166	.00111	19.786	.00188
%RSD	.06192	.22996	.29934	.35729	.44575	69.269	.75494
#1	10.004	.24280	.50838	46.301	.24898	-13.164	.24758
#2	10.012	.24374	.50603	46.550	.24906	-50.878	.24977
#3	9.9995	.24380	.50887	46.615	.25095	-21.648	.25133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201076702S Acquired: 2/7/2012 10:40:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388441-04

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11.446	F 466.00	F -22503.	.58959	.19233	16.097	.52448
Stddev	4.283	1.70	44.	.00362	.00266	.014	.00204
%RSD	37.417	.36571	.19341	.61392	1.3809	.08448	.38842
#1	7.2906	466.58	-22549.	.59156	.19291	16.098	.52329
#2	15.846	464.08	-22463.	.58541	.18942	16.083	.52332
#3	11.202	467.34	-22497.	.59180	.19464	16.111	.52683
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.83807	.48157	.25195	.50738	.50930	.29544
Stddev	.00055	.00192	.00065	.00646	.00197	.10729
%RSD	.06513	.39920	.25972	1.2738	.38612	36.316
#1	.83744	.48083	.25125	.49993	.50703	.40894
#2	.83844	.48375	.25254	.51151	.51032	.19568
#3	.83832	.48012	.25208	.51070	.51055	.28170
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20912.	18647.
Stddev	274.	82.
%RSD	1.3097	.43968
#1	21227.	18696.
#2	20783.	18552.
#3	20726.	18692.

Approved: February 08, 2012

Sample Name: L1201076703SD Acquired: 2/7/2012 10:44:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388441-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19380	5.0596	.19786	.98266	.54764	.02382	38.868
Stddev	.00544	.0365	.00100	.02728	.00266	.00053	.076
%RSD	2.8072	.72077	.50485	2.7759	.48583	2.2149	.19630
#1	.18932	5.0397	.19900	.96054	.54789	.02334	38.874
#2	.19223	5.1017	.19713	.97430	.55017	.02374	38.941
#3	.19986	5.0375	.19746	1.0131	.54486	.02439	38.789
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02473	.09945	.24626	.24677	1.9661	27.001	.50822
Stddev	.00002	.00024	.00502	.00065	.0066	.028	.00197
%RSD	.06375	.24570	2.0383	.26363	.33424	.10484	.38799
#1	.02473	.09918	.24156	.24622	1.9720	26.973	.50603
#2	.02471	.09952	.24568	.24661	1.9672	26.999	.50985
#3	.02474	.09966	.25155	.24749	1.9590	27.029	.50879
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.008	.24609	.51189	46.346	.25121	F -11.558	.25056
Stddev	.008	.00107	.00181	.056	.00166	11.736	.00155
%RSD	.07728	.43379	.35441	.12168	.66226	101.54	.61665
#1	10.013	.24710	.51331	46.410	.25158	-11.990	.25220
#2	9.9987	.24619	.50985	46.303	.24940	-23.071	.25032
#3	10.010	.24497	.51251	46.327	.25266	.3884	.24914
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201076703SD Acquired: 2/7/2012 10:44:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388441-05

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1542	F 463.85	F -22215.	.59760	.19693	16.039	.52960
Stddev	1.2229	1.64	36.	.00040	.00330	.039	.00122
%RSD	23.727	.35405	.16153	.06743	1.6763	.24309	.22967
#1	4.0069	462.10	-22177.	.59732	.19332	15.994	.53099
#2	6.4408	465.36	-22249.	.59806	.19979	16.058	.52873
#3	5.0148	464.08	-22220.	.59741	.19769	16.064	.52907
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.83348	.48272	.25474	.48310	.50987	.26567
Stddev	.00183	.00338	.00213	.01156	.00107	.09041
%RSD	.21952	.69971	.83679	2.3923	.20989	34.030
#1	.83407	.47971	.25232	.47331	.50910	.16185
#2	.83494	.48637	.25556	.48013	.50941	.30810
#3	.83143	.48208	.25634	.49585	.51109	.32706
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21489.	17563.
Stddev	85.	179.
%RSD	.39605	1.0179
#1	21473.	17451.
#2	21581.	17769.
#3	21414.	17468.

Approved: February 08, 2012

Sample Name: L1201079801 Acquired: 2/7/2012 10:47:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.05088	.00626	.04576	.08482	-.00003	22.233
Stddev	.00026	.01262	.00018	.00100	.00017	.00002	.142
%RSD	654.67	24.805	2.9395	2.1771	.20570	64.466	.63854
#1	-.00030	.06542	.00606	.04635	.08470	-.00001	22.267
#2	.00023	.04273	.00631	.04461	.08474	-.00002	22.076
#3	-.00005	.04450	.00642	.04632	.08502	-.00005	22.354
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	-.00006	.00186	.00016	.04542	1.8067	.01113
Stddev	.00013	.00011	.00023	.00049	.00255	.0356	.00109
%RSD	127.04	169.88	12.238	309.71	5.6111	1.9694	9.7908
#1	-.00002	-.00018	.00185	.00017	.04437	1.8461	.01182
#2	.00009	.00003	.00164	-.00034	.04357	1.7973	.01169
#3	.00023	-.00005	.00209	.00065	.04833	1.7768	.00987
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3379	.00156	.00529	19.594	.00037	F -39.181	.00076
Stddev	.0254	.00084	.00026	.122	.00026	19.390	.00054
%RSD	1.0860	53.903	4.8536	.62470	71.526	49.488	71.250
#1	2.3091	.00196	.00518	19.622	.00059	-58.206	.00062
#2	2.3479	.00213	.00559	19.460	.00008	-19.445	.00136
#3	2.3569	.00059	.00511	19.700	.00044	-39.892	.00030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201079801 Acquired: 2/7/2012 10:47:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 14.459	F 296.22	F -14183.	.00150	.00124	13.363	.00009
Stddev	8.034	1.08	65.	.00127	.00364	.046	.00039
%RSD	55.561	.36322	.45970	84.410	292.74	.34338	453.39
#1	21.275	295.28	-14184.	.00012	.00465	13.369	-.00008
#2	16.500	295.98	-14117.	.00261	.00165	13.315	.00053
#3	5.6018	297.40	-14247.	.00179	-.00258	13.406	-.00019
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23145	.00041	.00018	.01894	.00989	F -.01011
Stddev	.00179	.00186	.00056	.00026	.00006	.11008
%RSD	.77537	449.14	308.65	1.3978	.58921	1089.0
#1	.23218	.00152	-.00042	.01896	.00995	-.10704
#2	.22941	.00146	.00069	.01867	.00988	.10957
#3	.23277	-.00174	.00027	.01920	.00984	-.03286
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21624.	18614.
Stddev	133.	385.
%RSD	.61731	2.0695
#1	21514.	18855.
#2	21585.	18819.
#3	21773.	18170.

Approved: February 08, 2012

Sample Name: L1201079901 Acquired: 2/7/2012 10:50:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.01149	.00160	.02152	.02140	-.00004	56.144
Stddev	.00069	.01737	.00195	.00078	.00019	.00001	.295
%RSD	421.30	151.18	121.32	3.6161	.90329	34.056	.52487
#1	.00087	.02657	-.00044	.02183	.02144	-.00005	56.066
#2	-.00051	.01540	.00343	.02210	.02157	-.00004	56.470
#3	.00012	-.00750	.00183	.02064	.02119	-.00003	55.896
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00017	.00180	.00095	.65728	2.8366	-.00285
Stddev	.00010	.00009	.00029	.00013	.00618	.0692	.00070
%RSD	66.268	53.523	16.305	13.741	.94014	2.4394	24.590
#1	.00017	.00007	.00189	.00106	.66424	2.8956	-.00320
#2	.00004	.00018	.00203	.00099	.65516	2.8539	-.00330
#3	.00024	.00024	.00147	.00080	.65244	2.7604	-.00204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.7069	.09824	.00026	7.9844	.00124	F -211.76	.00100
Stddev	.0203	.00062	.00024	.0381	.00055	15.27	.00075
%RSD	.20860	.62943	93.650	.47656	44.076	7.2115	74.983
#1	9.7199	.09754	.00051	7.9535	.00160	-196.60	.00019
#2	9.7173	.09847	.00004	8.0269	.00152	-211.53	.00114
#3	9.6836	.09872	.00021	7.9728	.00061	-227.14	.00167
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201079901 Acquired: 2/7/2012 10:50:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 23.623	F 207.03	F -7711.3	.00320	-.00053	4.1906	.00005
Stddev	6.583	2.32	37.9	.00144	.00289	.0282	.00013
%RSD	27.867	1.1216	.49128	44.908	541.83	.67350	278.95
#1	19.539	208.48	-7726.9	.00469	-.00238	4.2094	-.00009
#2	20.112	208.25	-7738.8	.00183	-.00201	4.2043	.00017
#3	31.217	204.35	-7668.1	.00307	.00279	4.1581	.00006
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18254	-.00010	-.00102	.00028	.01106	.33388
Stddev	.00074	.00132	.00134	.00008	.00014	.18453
%RSD	.40491	1371.9	131.29	29.016	1.2345	55.268
#1	.18202	.00082	-.00246	.00037	.01118	.18678
#2	.18338	-.00161	-.00077	.00022	.01109	.54094
#3	.18220	.00050	.00017	.00025	.01091	.27393
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22090.	19356.
Stddev	229.	133.
%RSD	1.0360	.68851
#1	21831.	19326.
#2	22172.	19240.
#3	22266.	19501.

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 10:54:09 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40658	10.082	.40130	.50180	.99016	.04926	10.014
Stddev	.01079	.058	.00103	.01102	.00451	.00080	.048
%RSD	2.6533	.57867	.25583	2.1952	.45542	1.6219	.48181
#1	.41662	10.015	.40226	.51154	.98540	.04988	9.9595
#2	.39517	10.121	.40022	.48985	.99071	.04836	10.051
#3	.40794	10.110	.40141	.50403	.99437	.04953	10.031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04969	.20138	.50338	.50090	3.9472	49.731	.98164
Stddev	.00008	.00033	.00884	.00032	.0115	.164	.00354
%RSD	.16823	.16454	1.7560	.06401	.29170	.32904	.36098
#1	.04973	.20111	.51048	.50056	3.9339	49.548	.97791
#2	.04974	.20175	.49348	.50094	3.9539	49.782	.98205
#3	.04959	.20128	.50619	.50120	3.9537	49.864	.98496
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.8251	.49169	1.0042	50.156	.50432	F 1.8149	.50686
Stddev	.0369	.00287	.0017	.128	.00154	33.757	.00132
%RSD	.37506	.58334	.16690	.25445	.30584	1860.0	.26102
#1	9.7827	.48904	1.0061	50.047	.50609	30.877	.50534
#2	9.8427	.49474	1.0029	50.124	.50327	-35.212	.50765
#3	9.8498	.49130	1.0036	50.296	.50361	9.7801	.50760
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 10:54:09 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 18.329	10.195	F 12.485	1.2030	.39845	5.0011	1.0097
Stddev	4.609	.079	1.960	.0039	.00143	.0060	.0003
%RSD	25.148	.77566	15.702	.32264	.35773	.12002	.02573
#1	20.408	10.178	10.970	1.2055	.39756	5.0056	1.0100
#2	13.046	10.126	14.699	1.2049	.39769	5.0035	1.0095
#3	21.532	10.282	11.785	1.1985	.40009	4.9943	1.0097
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99978	.98105	.51059	.99814	1.0072	F .88899
Stddev	.00322	.00348	.00046	.01863	.0010	.12369
%RSD	.32231	.35481	.08980	1.8663	.09518	13.914
#1	.99607	.97745	.51087	1.0131	1.0080	.74723
#2	1.0014	.98440	.51006	.97727	1.0061	.97497
#3	1.0019	.98131	.51084	1.0041	1.0075	.94477
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21485.	19579.
Stddev	129.	89.
%RSD	.60222	.45326
#1	21494.	19632.
#2	21609.	19630.
#3	21351.	19477.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 10:57:22 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**-.00252**	**-.00042**	**.00160**	**-.00047**	**-.00004**	**-.00601**
Stddev	.00037	.01070	.00069	.00095	.00027	.00003	.01461
%RSD	192.12	424.10	163.70	59.411	57.645	71.440	243.20
#1	-.00022	-.00124	-.00071	.00051	-.00027	-.00005	-.02275
#2	.00019	.00748	.00037	.00223	-.00078	-.00005	.00063
#3	-.00055	-.01381	-.00093	.00206	-.00036	-.00001	.00411
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.00004**	**-.00012**	**.00086**	**.00340**	**.04261**	**-.00215**
Stddev	.0001	.00009	.00035	.00072	.00010	.06312	.00145
%RSD	7816.3	235.03	290.19	83.703	2.9862	148.13	67.692
#1	-.00003	.00012	.00019	.00013	.00332	.10061	-.00102
#2	-.00004	.00006	-.00051	.00088	.00352	-.02462	-.00379
#3	.00006	-.00006	-.00005	.00156	.00337	.05184	-.00163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00405**	**.00028**	**.00056**	**.03214**	**-.00041**	F **17.040**	**.00083**
Stddev	.00839	.00082	.00006	.00390	.00026	7.852	.00071
%RSD	207.31	288.47	10.105	12.148	63.624	46.080	85.400
#1	-.00083	-.00055	.00060	.02975	-.00025	22.351	.00162
#2	-.00076	.00108	.00049	.03664	-.00071	8.0207	.00025
#3	.01373	.00032	.00058	.03001	-.00027	20.749	.00062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						1.0000	
Low Limit						-1.1000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 10:57:22 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 13.549	-.18021	F 11.624	.00102	-.00447	.00253	.00051
Stddev	7.908	.04193	1.594	.00058	.00159	.00093	.00026
%RSD	58.363	23.266	13.713	56.840	35.527	36.990	50.872
#1	10.413	-.22207	10.729	.00048	-.00473	.00162	.00023
#2	7.6907	-.18033	10.678	.00095	-.00276	.00248	.00074
#3	22.544	-.13822	13.464	.00163	-.00591	.00348	.00055
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	1.0000		1.0000				
Low Limit	-1.0000		-1.0000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.00117	-.00019	-.00017	.00002	-.01469
Stddev	.00013	.00069	.00087	.00022	.00002	.16725
%RSD	70.278	59.193	462.30	131.97	106.08	1138.8
#1	.00030	.00038	.00058	.00001	.00003	.02040
#2	.00024	.00165	-.00114	-.00042	.00000	.13224
#3	.00004	.00147	-.00001	-.00010	.00004	-.19670
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21693.	18593.
Stddev	220.	263.
%RSD	1.0155	1.4139
#1	21608.	18323.
#2	21527.	18609.
#3	21943.	18848.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201080001 Acquired: 2/7/2012 11:00:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	-.01628	.00196	.03380	.00719	.00000	60.584
Stddev	.00063	.03925	.00165	.00004	.00041	.00002	.033
%RSD	713.95	241.11	83.867	.10456	5.6502	1424.3	.05370
#1	.00042	.01432	.00362	.03380	.00750	-.00002	60.551
#2	.00010	-.00263	.00194	.03384	.00734	.00003	60.585
#3	-.00079	-.06054	.00033	.03377	.00673	.00000	60.616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00003	.00184	.00093	.25220	1.5953	.00100
Stddev	.00007	.00014	.00041	.00029	.00413	.0168	.00093
%RSD	29.370	517.58	22.449	30.879	1.6383	1.0504	92.674
#1	.00031	-.00004	.00228	.00115	.25569	1.5798	.00093
#2	.00018	.00019	.00176	.00104	.25327	1.6131	.00197
#3	.00020	-.00007	.00147	.00061	.24764	1.5929	.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.000	.13249	.00037	13.760	.00065	F -50.382	-.00043
Stddev	.045	.00046	.00006	.035	.00074	25.181	.00054
%RSD	.23545	.34625	14.885	.25688	115.10	49.980	124.52
#1	19.032	.13202	.00039	13.722	.00093	-52.719	-.00093
#2	18.949	.13294	.00031	13.791	.00120	-24.114	-.00050
#3	19.019	.13251	.00041	13.768	-.00020	-74.312	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201080001 Acquired: 2/7/2012 11:00:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.865	F 224.23	F -8341.6	.00142	.00029	6.5871	-.00002
Stddev	3.106	.77	10.4	.00118	.00175	.0180	.00042
%RSD	18.417	.34347	.12476	83.055	606.01	.27258	1721.7
#1	14.913	224.97	-8343.2	.00276	.00147	6.6016	-.00008
#2	15.235	223.43	-8330.4	.00093	-.00172	6.5670	.00042
#3	20.447	224.29	-8351.0	.00057	.00112	6.5926	-.00042
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18972	-.00243	-.00003	.00024	.00388	F -.23540
Stddev	.00019	.00069	.00147	.00043	.00013	.10351
%RSD	.10269	28.415	5664.0	179.09	3.2877	43.970
#1	.18952	-.00294	.00089	-.00016	.00385	-.13231
#2	.18991	-.00270	.00075	.00070	.00377	-.23456
#3	.18974	-.00164	-.00172	.00018	.00402	-.33932
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21288.	18495.
Stddev	29.	115.
%RSD	.13624	.62011
#1	21275.	18364.
#2	21268.	18545.
#3	21321.	18577.

Approved: February 08, 2012

Sample Name: L1201080001PS Acquired: 2/7/2012 11:04:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388487-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20091	4.9560	.19758	1.0251	.49243	.02467	58.452
Stddev	.00206	.0204	.00160	.0128	.00220	.00021	.085
%RSD	1.0264	.41117	.81130	1.2484	.44679	.85753	.14499
#1	.20208	4.9401	.19943	1.0305	.49043	.02474	58.418
#2	.19852	4.9488	.19656	1.0105	.49479	.02443	58.549
#3	.20211	4.9789	.19676	1.0343	.49209	.02483	58.390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02505	.09889	.24957	.24604	2.1547	26.011	.48889
Stddev	.00010	.00027	.00144	.00018	.0080	.059	.00241
%RSD	.38196	.27033	.57797	.07516	.37340	.22696	.49336
#1	.02503	.09870	.25035	.24582	2.1477	25.943	.48648
#2	.02496	.09877	.24791	.24614	2.1529	26.049	.49130
#3	.02515	.09920	.25046	.24614	2.1635	26.042	.48889
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.491	.35935	.50013	37.277	.24737	F -37.346	.24993
Stddev	.097	.00027	.00149	.015	.00148	11.474	.00033
%RSD	.45210	.07408	.29733	.03945	.59774	30.725	.13207
#1	21.448	.35905	.49844	37.261	.24577	-42.750	.25020
#2	21.602	.35957	.50075	37.289	.24766	-24.167	.25003
#3	21.423	.35941	.50121	37.283	.24868	-45.120	.24956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201080001PS Acquired: 2/7/2012 11:04:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388487-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 13.648	F 203.87	F -7449.4	.59133	.19605	8.3723	.50070
Stddev	6.018	.77	14.4	.00103	.00374	.0202	.00960
%RSD	44.094	.37969	.19360	.17397	1.9077	.24074	1.9180
#1	15.725	204.62	-7438.8	.59019	.19950	8.3881	.49272
#2	18.353	203.08	-7465.8	.59163	.19658	8.3496	.49802
#3	6.8668	203.90	-7443.6	.59218	.19207	8.3791	.51136
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.65296	.48082	.25305	.49314	.50637	.20176
Stddev	.00074	.00259	.00121	.00407	.00226	.20097
%RSD	.11350	.53849	.47921	.82619	.44641	99.607
#1	.65237	.47917	.25165	.49493	.50590	.15859
#2	.65379	.48381	.25366	.48848	.50438	.42081
#3	.65272	.47949	.25384	.49602	.50883	.02589
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21175.	18522.
Stddev	253.	150.
%RSD	1.1926	.80884
#1	21392.	18646.
#2	21234.	18355.
#3	20898.	18563.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201080001SDL Acquired: 2/7/2012 11:07:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388487-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	-.01147	.00110	.01100	.00128	-.00003	12.208
Stddev	.00031	.03103	.00047	.00015	.00024	.00002	.048
%RSD	195.29	270.59	42.984	1.3951	19.078	53.058	.39572
#1	-.00026	-.04725	.00066	.01089	.00155	-.00003	12.156
#2	.00019	.00481	.00160	.01117	.00107	-.00005	12.218
#3	-.00041	.00804	.00104	.01093	.00123	-.00002	12.252
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.00010	.00078	.00070	.05656	.34051	-.00284
Stddev	.00016	.00017	.00013	.00014	.00614	.01763	.00242
%RSD	141.28	165.12	16.895	20.311	10.852	5.1779	85.226
#1	.00024	.00018	.00074	.00053	.05208	.35568	-.00472
#2	.00018	-.00009	.00092	.00079	.05405	.34469	-.00368
#3	-.00007	.00022	.00067	.00077	.06356	.32117	-.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.8627	.02706	.00041	2.7711	-.00039	18.595	-.00024
Stddev	.0199	.00050	.00007	.0073	.00040	32.883	.00121
%RSD	.51585	1.8408	16.214	.26168	101.85	176.84	505.99
#1	3.8527	.02670	.00036	2.7639	-.00082	55.711	-.00077
#2	3.8497	.02685	.00049	2.7784	-.00004	-6.9005	-.00109
#3	3.8856	.02763	.00039	2.7709	-.00031	6.9752	.00114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201080001SDL Acquired: 2/7/2012 11:07:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388487-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 13.752	F 44.927	F -1635.7	.00189	-.00223	1.3109	.00017
Stddev	7.011	.166	4.0	.00180	.00167	.0038	.00043
%RSD	50.986	.36888	.24734	95.479	74.937	.28682	250.93
#1	7.8091	45.100	-1632.1	.00087	-.00040	1.3127	.00053
#2	21.485	44.911	-1640.1	.00083	-.00260	1.3134	-.00030
#3	11.961	44.770	-1634.9	.00397	-.00368	1.3065	.00027
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03847	-.00116	-.00012	-.00007	.00164	F -.02182
Stddev	.00014	.00101	.00085	.00011	.00029	.13670
%RSD	.36638	87.245	725.47	162.82	17.632	626.46
#1	.03855	-.00169	.00076	-.00014	.00156	-.17875
#2	.03830	-.00181	-.00094	-.00013	.00197	.04194
#3	.03855	.00001	-.00017	.00006	.00140	.07135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21584.	18057.
Stddev	139.	141.
%RSD	.64191	.78097
#1	21654.	17912.
#2	21424.	18065.
#3	21673.	18194.

Approved: February 08, 2012

Sample Name: L1201081301 Acquired: 2/7/2012 11:10:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	-.02424	.00148	.00248	-.00010	-.00002	.02258
Stddev	.00058	.01175	.00140	.00033	.00046	.00001	.00635
%RSD	117.70	48.484	94.964	13.466	459.70	68.247	28.118
#1	-.00092	-.03436	-.00014	.00211	-.00022	-.00003	.01556
#2	.00017	-.02701	.00241	.00276	-.00049	-.00001	.02428
#3	-.00074	-.01135	.00215	.00256	.00041	-.00001	.02792
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	-.00012	.00136	.00170	.00929	.08474	-.00274
Stddev	.00007	.00009	.00026	.00047	.00481	.02154	.00153
%RSD	195.85	73.130	19.244	27.796	51.771	25.418	55.725
#1	-.00001	-.00007	.00141	.00118	.00397	.06025	-.00207
#2	.00002	-.00007	.00160	.00181	.01333	.10075	-.00449
#3	-.00011	-.00022	.00108	.00210	.01056	.09321	-.00167
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01324	.00003	-.00007	.02169	.00064	F -35.516	.00063
Stddev	.01122	.00026	.00023	.01605	.00075	23.519	.00105
%RSD	84.753	1009.6	303.98	74.005	116.41	66.220	168.20
#1	.00102	-.00015	-.00031	.01862	.00110	-51.823	.00166
#2	.02309	-.00010	-.00005	.00739	-.00022	-8.5556	.00065
#3	.01562	.00033	.00014	.03905	.00105	-46.170	-.00044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Sample Name: L1201081301 Acquired: 2/7/2012 11:10:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.2423**	**.43542**	F **-21.413**	**-.00037**	**.00017**	**.00884**	**.00021**
Stddev	3.4366	.01993	1.073	.00214	.00191	.00214	.00019
%RSD	47.452	4.5762	5.0088	577.09	1158.8	24.205	92.124
#1	3.4792	.45841	-21.462	.00062	.00237	.00930	.00013
#2	10.214	.42464	-22.460	-.00283	-.00082	.00651	.00007
#3	8.0331	.42320	-20.317	.00109	-.00106	.01071	.00043
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00066**	**.00128**	**.00010**	**-.00006**	**.06262**
Stddev	.00013	.00093	.00071	.00013	.00012	.14006
%RSD	102.34	139.62	55.317	128.02	216.25	223.66
#1	.00024	.00153	.00179	.00021	-.00012	-.09622
#2	.00015	-.00031	.00157	-.00004	-.00013	.16839
#3	-.00001	.00078	.00047	.00014	.00008	.11569
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22452.**	**18085.**
Stddev	248.	106.
%RSD	1.1055	.58658
#1	22333.	18029.
#2	22737.	18018.
#3	22286.	18207.

Approved: February 08, 2012

Sample Name: L1201081302 Acquired: 2/7/2012 11:14:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.02245	.00080	.00139	-.00044	-.00003	.01737
Stddev	.00029	.01473	.00042	.00075	.00035	.00001	.00685
%RSD	120.27	65.610	51.823	53.945	80.167	48.507	39.462
#1	.00001	.00736	.00041	.00056	-.00039	-.00002	.02093
#2	.00057	.03679	.00076	.00202	-.00082	-.00002	.02170
#3	.00014	.02319	.00124	.00158	-.00012	-.00005	.00946
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	-.00006	.00048	.00153	.00588	-.02563	-.00203
Stddev	.00008	.00003	.00019	.00008	.00498	.04535	.00087
%RSD	180.34	53.764	39.368	5.3755	84.641	176.92	42.925
#1	-.00012	-.00004	.00026	.00147	.00381	-.07693	-.00265
#2	-.00004	-.00004	.00058	.00162	.01156	.00910	-.00103
#3	.00003	-.00009	.00059	.00150	.00227	-.00906	-.00240
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00503	-.00031	-.00010	.03082	.00052	21.055	.00132
Stddev	.01996	.00039	.00021	.00709	.00031	11.654	.00119
%RSD	396.51	125.10	208.85	22.992	59.310	55.349	90.379
#1	-.01246	.00008	-.00027	.02872	.00028	7.5997	.00211
#2	.00078	-.00032	-.00017	.02503	.00041	27.941	-.00005
#3	.02677	-.00070	.00014	.03872	.00086	27.624	.00190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201081302 Acquired: 2/7/2012 11:14:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.686	.11334	F -2.9141	.00167	-.00060	.00846	-.00004
Stddev	4.054	.06423	.4859	.00036	.00151	.00057	.00039
%RSD	24.295	56.668	16.676	21.456	253.26	6.7882	875.82
#1	13.931	.17505	-3.4590	.00152	-.00199	.00859	-.00048
#2	14.786	.11811	-2.7578	.00208	-.00080	.00783	.00011
#3	21.341	.04686	-2.5256	.00141	.00101	.00895	.00024
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00028	-.00048	.00000	-.00073	F -.10065
Stddev	.00008	.00044	.00049	.0002	.00006	.11033
%RSD	97.451	155.88	102.51	4621.3	7.8547	109.61
#1	-.00001	.00004	.00009	.00016	-.00078	-.08550
#2	.00015	.00002	-.00081	-.00024	-.00074	.00132
#3	.00010	.00078	-.00073	.00007	-.00067	-.21778
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22162.	18941.
Stddev	68.	85.
%RSD	.30580	.44869
#1	22194.	18924.
#2	22084.	19033.
#3	22208.	18865.

Approved: February 08, 2012

Sample Name: L1201081303 Acquired: 2/7/2012 11:17:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	-.04105	.00117	.00229	-.00040	-.00003	.01662
Stddev	.00024	.03050	.00181	.00058	.00051	.00001	.01355
%RSD	104.28	74.307	154.30	25.230	127.75	36.907	81.532
#1	-.00045	-.00953	.00292	.00291	.00017	-.00003	.00203
#2	.00002	-.07042	.00129	.00219	-.00081	-.00004	.02881
#3	-.00026	-.04320	-.00069	.00177	-.00056	-.00002	.01901
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00001	.00103	.00160	.00468	.02033	-.00494
Stddev	.00004	.00009	.00042	.00031	.00223	.02066	.00172
%RSD	41.734	707.03	40.524	19.610	47.543	101.66	34.746
#1	.00008	-.00009	.00125	.00139	.00703	.04221	-.00300
#2	.00014	.00008	.00055	.00196	.00441	.01763	-.00558
#3	.00007	.00005	.00130	.00145	.00260	.00114	-.00625
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01515	-.00023	.00001	.04495	.00043	9.5153	.00014
Stddev	.00320	.00061	.00031	.02410	.00053	8.5004	.00094
%RSD	21.142	260.72	3443.5	53.610	121.11	89.334	669.67
#1	.01703	-.00051	.00021	.02156	.00029	1.3354	.00031
#2	.01145	-.00065	.00017	.06970	.00101	8.9069	.00098
#3	.01697	.00046	-.00035	.04360	-.00001	18.304	-.00087
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201081303 Acquired: 2/7/2012 11:17:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9.5184	.05906	F -4.2392	-.00060	-.00302	.00701	.00003
Stddev	7.4086	.03466	2.3735	.00181	.00250	.00076	.00009
%RSD	77.835	58.683	55.988	299.46	82.783	10.902	320.78
#1	13.330	.04548	-3.8993	-.00267	-.00591	.00674	-.00008
#2	.98001	.09846	-6.7643	.00068	-.00148	.00787	.00009
#3	14.245	.03325	-2.0540	.00018	-.00168	.00642	.00007
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00063	-.00001	.00034	-.00058	F -.09610
Stddev	.00015	.00069	.00008	.00042	.00015	.15908
%RSD	2223.9	108.03	730.03	124.76	25.175	165.53
#1	-.00010	-.00015	.00005	-.00008	-.00071	-.10234
#2	-.00010	.00094	.00001	.00076	-.00060	.06600
#3	.00017	.00111	-.00010	.00034	-.00042	-.25197
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22455.	19066.
Stddev	26.	173.
%RSD	.11438	.90728
#1	22485.	18897.
#2	22442.	19243.
#3	22439.	19058.

Approved: February 08, 2012

Sample Name: L1201081304 Acquired: 2/7/2012 11:21:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.02210	.00050	.00032	-.00016	-.00003	.01777
Stddev	.00052	.02632	.00093	.00042	.00017	.00002	.01677
%RSD	324.19	119.11	186.50	128.02	111.53	53.388	94.393
#1	.00024	-.00645	-.00053	.00068	-.00019	-.00002	.00592
#2	.00064	.04540	.00129	-.00013	-.00031	-.00005	.01043
#3	-.00039	.02735	.00074	.00043	.00003	-.00002	.03696
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00023	.00059	.00158	.01152	.02326	-.00565
Stddev	.00016	.00012	.00033	.00046	.00239	.05630	.00109
%RSD	480.63	53.459	56.344	29.141	20.725	242.04	19.352
#1	.00009	.00009	.00033	.00200	.01186	.02634	-.00678
#2	-.00022	.00026	.00048	.00109	.01371	-.03452	-.00556
#3	.00002	.00033	.00096	.00165	.00898	.07796	-.00460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01704	.00033	-.00001	.04464	.00025	F -12.531	.00016
Stddev	.01399	.00042	.00019	.00561	.00033	18.802	.00148
%RSD	82.094	124.55	1434.5	12.558	133.15	150.05	901.02
#1	.02157	.00035	-.00015	.03822	.00053	5.9328	.00104
#2	.02819	.00074	.00020	.04711	.00033	-11.871	-.00154
#3	.00135	-.00009	-.00009	.04858	-.00011	-31.653	.00099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201081304 Acquired: 2/7/2012 11:21:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.829	.42245	F -22.896	.00071	.00055	.00935	-.00022
Stddev	5.507	.02790	1.261	.00153	.00155	.00180	.00041
%RSD	42.928	6.6046	5.5054	216.40	283.67	19.302	188.86
#1	18.491	.44626	-21.644	.00015	.00233	.00823	-.00068
#2	12.505	.39175	-22.879	-.00047	-.00054	.00839	.00007
#3	7.4911	.42934	-24.164	.00244	-.00014	.01143	-.00004
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	-.00076	.00062	.00032	.00266	.14184
Stddev	.00015	.00114	.00139	.00028	.00008	.19695
%RSD	72.320	150.20	224.84	87.043	2.8614	138.85
#1	.00004	.00036	-.00086	.00062	.00257	.23431
#2	.00028	-.00191	.00083	.00007	.00270	.27555
#3	.00032	-.00073	.00189	.00028	.00270	-.08432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22258.	19030.
Stddev	51.	73.
%RSD	.22939	.38364
#1	22247.	19103.
#2	22214.	18957.
#3	22314.	19029.

Approved: February 08, 2012

Sample Name: L1201081305 Acquired: 2/7/2012 11:24:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00075	-.01141	.00084	.00114	-.00042	-.00002	.03036
Stddev	.00028	.04892	.00107	.00085	.00050	.00002	.00071
%RSD	37.283	428.75	127.14	75.151	118.54	139.72	2.3400
#1	-.00066	-.01921	.00109	.00033	-.00012	-.00001	.03116
#2	-.00106	.04094	.00176	.00203	-.00101	-.00004	.03015
#3	-.00052	-.05596	-.00033	.00105	-.00015	.00001	.02979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.00014	.00346	.00263	.01949	.00069	-.00419
Stddev	.00005	.00019	.00039	.00025	.00354	.02286	.00043
%RSD	59.981	135.35	11.309	9.4336	18.181	3312.2	10.281
#1	.00013	-.00009	.00317	.00289	.01542	.01602	-.00431
#2	.00007	.00002	.00390	.00262	.02186	-.02559	-.00454
#3	.00004	-.00035	.00331	.00239	.02119	.01164	-.00371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00297	-.00045	.00019	.02403	-.00001	F -1.2176	-.00035
Stddev	.00692	.00022	.00002	.01244	.00030	34.418	.00132
%RSD	232.57	48.718	11.082	51.792	3649.8	2826.7	378.69
#1	.00527	-.00068	.00018	.03081	.00033	38.247	-.00187
#2	-.00480	-.00040	.00021	.03161	-.00024	-16.884	.00049
#3	.00846	-.00026	.00017	.00967	-.00012	-25.015	.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201081305 Acquired: 2/7/2012 11:24:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.540	.39017	F -22.682	.00137	-.00178	.01063	-.00004
Stddev	6.199	.02396	2.675	.00176	.00078	.00132	.00020
%RSD	37.477	6.1417	11.795	128.55	43.522	12.397	457.04
#1	23.688	.37386	-24.776	.00195	-.00166	.01064	.00000
#2	12.649	.41768	-23.601	.00275	-.00262	.01194	-.00027
#3	13.282	.37898	-19.668	-.00061	-.00108	.00931	.00013
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	-.00009	-.00040	.00047	-.00098	F -.06425
Stddev	.00005	.00176	.00068	.00030	.00006	.09328
%RSD	57.474	1957.2	168.07	63.023	6.1898	145.19
#1	.00015	-.00059	-.00066	.00013	-.00092	.03524
#2	.00004	.00186	.00037	.00065	-.00103	-.14974
#3	.00010	-.00154	-.00091	.00064	-.00100	-.07823
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21913.	18853.
Stddev	96.	220.
%RSD	.43711	1.1651
#1	21887.	18983.
#2	22020.	18976.
#3	21834.	18599.

Approved: February 08, 2012

Sample Name: L1201081306 Acquired: 2/7/2012 11:28:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	.00732	-.00015	.00207	-.00020	-.00003	.01944
Stddev	.00022	.01310	.00116	.00047	.00026	.00002	.00337
%RSD	36.699	178.92	787.08	22.577	133.61	62.479	17.329
#1	-.00058	.00053	.00006	.00258	.00011	-.00001	.02144
#2	-.00083	-.00098	-.00140	.00165	-.00034	-.00004	.01555
#3	-.00039	.02242	.00090	.00199	-.00035	-.00003	.02133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00002	.00073	.00224	.01381	-.02146	.00066
Stddev	.00001	.00020	.00045	.00050	.00401	.02562	.00141
%RSD	17.085	1039.3	61.612	22.116	29.057	119.37	214.53
#1	-.00008	.00007	.00125	.00268	.01781	-.01891	.00221
#2	-.00006	-.00021	.00055	.00171	.00978	.00279	.00031
#3	-.00008	.00019	.00040	.00235	.01383	-.04826	-.00055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01086	-.00015	-.00013	.01462	-.00013	17.785	.00049
Stddev	.03218	.00040	.00026	.00269	.00046	22.638	.00118
%RSD	296.41	272.65	200.39	18.402	344.26	127.29	241.11
#1	-.00342	.00022	-.00027	.01163	-.00042	-6.5870	.00062
#2	-.01172	-.00057	.00017	.01541	.00040	21.786	.00160
#3	.04770	-.00008	-.00029	.01683	-.00038	38.155	-.00075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201081306 Acquired: 2/7/2012 11:28:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.8555**	**.33620**	F **-18.700**	**.00135**	**-.00209**	**.01067**	**.00030**
Stddev	5.2056	.01127	1.333	.00014	.00124	.00001	.00022
%RSD	58.784	3.3533	7.1278	10.584	59.603	.11492	73.604
#1	14.846	.33047	-19.865	.00146	-.00352	.01067	.00045
#2	6.2880	.34919	-18.989	.00141	-.00141	.01065	.00005
#3	5.4324	.32894	-17.247	.00119	-.00133	.01067	.00039
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00107**	**.00080**	**.00004**	**.00032**	F **-.04120**
Stddev	.00019	.00136	.00033	.00038	.00012	.16015
%RSD	250.03	126.92	41.628	894.24	37.679	388.72
#1	.00028	-.00224	.00089	.00014	.00019	-.17172
#2	-.00008	.00042	.00107	.00037	.00033	.13752
#3	.00002	-.00139	.00043	-.00038	.00044	-.08940
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21308.**	**18670.**
Stddev	332.	246.
%RSD	1.5595	1.3187
#1	20928.	18793.
#2	21448.	18829.
#3	21547.	18386.

Approved: February 08, 2012

Sample Name: L1201081307 Acquired: 2/7/2012 11:31:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00066	-.03101	-.00025	.00124	-.00011	-.00003	.00347
Stddev	.00055	.01394	.00154	.00102	.00029	.00002	.00770
%RSD	83.645	44.937	622.10	82.774	271.82	64.578	221.88
#1	-.00129	-.03050	-.00201	.00199	.00020	-.00001	-.00384
#2	-.00034	-.01734	.00076	.00007	-.00013	-.00004	.01151
#3	-.00034	-.04520	.00051	.00165	-.00039	-.00005	.00273
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.00008	.00156	.00205	.01071	.06870	-.00455
Stddev	.00008	.00016	.00042	.00044	.00249	.03489	.00326
%RSD	93.683	193.42	27.072	21.722	23.222	50.781	71.620
#1	-.00001	.00001	.00129	.00231	.00785	.06863	-.00079
#2	-.00016	.00001	.00134	.00229	.01231	.03385	-.00637
#3	-.00008	-.00026	.00205	.00153	.01199	.10362	-.00649
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00497	-.00008	-.00018	.01877	.00040	.17632	-.00108
Stddev	.02225	.00062	.00028	.00331	.00057	13.116	.00096
%RSD	447.88	803.97	153.48	17.652	140.40	7438.9	89.271
#1	-.01586	.00049	-.00036	.02052	.00103	15.059	-.00026
#2	.02841	.00001	.00014	.02084	-.00007	-9.6970	-.00214
#3	.00236	-.00073	-.00033	.01495	.00025	-4.8329	-.00083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201081307 Acquired: 2/7/2012 11:31:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.333	.34883	F -19.654	.00005	-.00073	.00901	-.00008
Stddev	10.137	.04389	2.113	.00233	.00095	.00113	.00007
%RSD	82.193	12.582	10.751	4438.5	129.87	12.487	85.929
#1	.91135	.36897	-19.612	-.00256	-.00180	.00772	-.00010
#2	15.827	.29849	-17.563	.00194	-.00040	.00968	.00000
#3	20.261	.37904	-21.789	.00077	.00001	.00965	-.00013
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	-.00187	.00073	-.00006	-.00090	F -.08174
Stddev	.00014	.00060	.00116	.00033	.00007	.12963
%RSD	1031.6	32.072	158.95	514.42	7.5056	158.59
#1	-.00010	-.00201	.00033	-.00005	-.00094	.06732
#2	-.00009	-.00121	.00204	.00026	-.00082	-.16809
#3	.00014	-.00238	-.00018	-.00040	-.00094	-.14446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21676.	18253.
Stddev	61.	114.
%RSD	.28055	.62258
#1	21692.	18176.
#2	21727.	18384.
#3	21609.	18200.

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 11:35:07 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39685	9.9838	.39765	.49128	.98355	.04797	9.8565
Stddev	.00472	.0520	.00236	.00773	.00347	.00084	.0219
%RSD	1.1896	.52068	.59467	1.5728	.35261	1.7541	.22228
#1	.40145	9.9261	.39843	.49966	.97963	.04874	9.8597
#2	.39707	10.027	.39953	.48972	.98479	.04810	9.8766
#3	.39202	9.9983	.39500	.48445	.98623	.04707	9.8331
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04953	.19864	.48726	.49404	3.9373	49.734	.97920
Stddev	.00009	.00064	.00708	.00217	.0034	.135	.00164
%RSD	.18252	.32020	1.4538	.43855	.08756	.27102	.16799
#1	.04962	.19894	.49394	.49537	3.9361	49.601	.98088
#2	.04954	.19907	.48801	.49522	3.9346	49.870	.97913
#3	.04944	.19791	.47983	.49154	3.9412	49.730	.97759
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9342	.49529	.98670	49.984	.49691	F -6.0255	.50392
Stddev	.0291	.00238	.00229	.104	.00061	41.329	.00260
%RSD	.29311	.48095	.23205	.20889	.12365	685.90	.51501
#1	9.9562	.49434	.98934	49.933	.49761	35.947	.50684
#2	9.9453	.49800	.98524	50.104	.49649	-7.3433	.50305
#3	9.9012	.49352	.98552	49.915	.49662	-46.680	.50187
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 11:35:07 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.495	10.048	F 17.281	1.1989	.39880	4.9728	.99684
Stddev	5.419	.052	2.065	.0042	.00185	.0017	.00222
%RSD	34.975	.51858	11.952	.35128	.46414	.03486	.22319
#1	9.2841	10.090	18.335	1.2004	.40034	4.9727	.99935
#2	19.264	10.064	14.901	1.1942	.39674	4.9711	.99513
#3	17.936	9.9895	18.605	1.2022	.39930	4.9745	.99603
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99079	.98434	.50697	.97326	.98598	F .88453
Stddev	.00270	.00295	.00302	.01645	.00311	.06698
%RSD	.27300	.29959	.59544	1.6906	.31570	7.5729
#1	.98784	.98150	.51024	.98998	.98884	.89995
#2	.99316	.98738	.50430	.97272	.98643	.94246
#3	.99138	.98415	.50636	.95709	.98267	.81118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21870.	18690.
Stddev	225.	369.
%RSD	1.0300	1.9755
#1	21694.	18366.
#2	21791.	18610.
#3	22124.	19092.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 11:38:22 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**-.02249**	**.00046**	**.00152**	**-.00056**	**-.00006**	**.00765**
Stddev	.00008	.02970	.00083	.00026	.00052	.00002	.00912
%RSD	37.479	132.04	181.51	16.966	92.858	42.910	119.16
#1	-.00017	-.01739	-.00027	.00159	.00004	-.00008	.00578
#2	-.00032	.00433	.00029	.00174	-.00092	-.00005	-.00038
#3	-.00018	-.05441	.00137	.00124	-.00081	-.00004	.01756
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00011**	**-.00023**	**.00021**	**.00223**	**.06402**	**-.00311**
Stddev	.00007	.00011	.00048	.00077	.00667	.02561	.00274
%RSD	341.71	104.02	204.59	372.89	298.85	40.007	88.319
#1	-.00002	.00024	.00030	.00069	-.00300	.08944	-.00257
#2	.00010	.00004	-.00063	.00061	-.00005	.06439	-.00067
#3	-.00002	.00004	-.00037	-.00068	.00974	.03822	-.00608
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00744**	**.00016**	**.00046**	**.04210**	**.00017**	F **9.9233**	**-.00058**
Stddev	.00668	.00044	.00023	.00325	.00021	34.467	.00144
%RSD	89.769	279.49	50.719	7.7274	117.34	347.34	249.59
#1	.00454	.00033	.00052	.04326	.00035	27.056	.00005
#2	.01508	.00049	.00020	.04460	.00023	32.467	.00045
#3	.00270	-.00035	.00066	.03842	-.00005	-29.754	-.00223
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						1.0000	
Low Limit						-1.1000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 11:38:22 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.961	-.20712	F 12.461	.00269	-.00188	.00308	.00049
Stddev	9.150	.06291	1.353	.00148	.00125	.00088	.00035
%RSD	53.948	30.372	10.855	54.948	66.437	28.522	71.495
#1	27.292	-.18405	10.900	.00440	-.00052	.00295	.00034
#2	9.8768	-.15900	13.274	.00190	-.00213	.00402	.00023
#3	13.715	-.27830	13.210	.00178	-.00298	.00228	.00088
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	1.0000		1.0000				
Low Limit	-1.0000		-1.0000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00068	-.00074	.00007	.00006	.06361
Stddev	.00015	.00145	.00107	.00022	.00008	.09870
%RSD	280.14	213.17	144.69	335.18	129.98	155.16
#1	-.00010	-.00076	-.00129	-.00001	.00015	.08958
#2	.00020	.00066	.00049	-.00011	.00000	-.04548
#3	.00005	.00214	-.00144	.00032	.00003	.14673
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22122.	19325.
Stddev	167.	257.
%RSD	.75550	1.3299
#1	21929.	19504.
#2	22210.	19031.
#3	22227.	19441.

Approved: February 08, 2012

Sample Name: L1201081308 Acquired: 2/7/2012 11:41:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	-.00668	.00073	.00179	-.00096	-.00004	.05020
Stddev	.00055	.01073	.00098	.00109	.00036	.00003	.00257
%RSD	235.76	160.49	133.89	60.959	37.169	63.548	5.1139
#1	-.00035	-.01501	.00180	.00114	-.00109	-.00004	.04832
#2	.00037	.00542	.00052	.00117	-.00123	-.00007	.04916
#3	-.00072	-.01047	-.00012	.00304	-.00056	-.00002	.05312
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00002	.00064	.00237	.00657	-.07149	.00020
Stddev	.00016	.00014	.00017	.00041	.00156	.04173	.00186
%RSD	436.23	644.68	26.431	17.119	23.777	58.377	924.97
#1	-.00013	.00013	.00084	.00230	.00483	-.11688	.00066
#2	.00018	-.00014	.00056	.00200	.00705	-.03478	-.00185
#3	.00007	-.00004	.00053	.00281	.00784	-.06281	.00179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02512	-.00009	.00008	.12208	.00009	14.736	.00046
Stddev	.01115	.00034	.00012	.01313	.00021	18.284	.00049
%RSD	44.367	375.26	151.91	10.758	227.82	124.08	106.34
#1	.02782	-.00012	.00017	.12721	-.00015	35.182	.00019
#2	.03468	-.00041	-.00005	.10716	.00024	-.04522	.00016
#3	.01288	.00026	.00011	.13188	.00019	9.0714	.00102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201081308 Acquired: 2/7/2012 11:41:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 21.313	.05609	F -2.1999	.00131	.00018	.01143	.00012
Stddev	1.411	.01149	1.4614	.00148	.00252	.00058	.00017
%RSD	6.6209	20.489	66.430	112.92	1396.7	5.1170	132.63
#1	20.105	.05587	-2.2437	.00174	-.00255	.01154	-.00003
#2	20.969	.04471	-3.6389	.00253	.00242	.01195	.00010
#3	22.864	.06769	-.71709	-.00034	.00067	.01080	.00030
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00193	-.00027	-.00005	-.00096	.13594
Stddev	.00012	.00114	.00063	.00018	.00008	.13017
%RSD	321.96	59.054	235.28	349.59	8.1301	95.758
#1	-.00006	.00258	.00004	.00002	-.00100	.10160
#2	.00017	.00061	.00015	-.00025	-.00087	.02638
#3	.00000	.00261	-.00099	.00008	-.00102	.27984
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22078.	20692.
Stddev	194.	127.
%RSD	.87763	.61302
#1	22156.	20639.
#2	22220.	20837.
#3	21857.	20601.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201081309 Acquired: 2/7/2012 11:45:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	-.01332	-.00007	.00195	-.00019	-.00004	.03822
Stddev	.00031	.03133	.00014	.00027	.00007	.00003	.01025
%RSD	150.73	235.16	207.07	14.061	36.271	61.667	26.805
#1	.00020	.02276	.00009	.00164	-.00012	-.00007	.02788
#2	-.00010	-.02916	-.00010	.00203	-.00019	-.00004	.03843
#3	.00051	-.03357	-.00018	.00217	-.00026	-.00002	.04837
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	-.00013	.00116	.00141	.01155	.00620	-.00172
Stddev	.0001	.00009	.00050	.00040	.00155	.02221	.00217
%RSD	1619.2	69.962	42.966	28.472	13.429	358.05	125.96
#1	-.00006	-.00006	.00059	.00177	.01167	.02980	.00027
#2	.00008	-.00010	.00148	.00149	.00994	.00312	-.00404
#3	-.00004	-.00024	.00142	.00098	.01304	-.01430	-.00140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00473	.00012	.00009	.04450	.00045	F -4.1689	.00063
Stddev	.01794	.00050	.00037	.02374	.00000	30.699	.00057
%RSD	378.88	412.85	402.05	53.344	.52580	736.39	91.023
#1	-.01017	.00029	-.00007	.06993	.00045	-24.444	.00097
#2	-.00026	-.00044	-.00017	.04063	.00046	-19.214	-.00003
#3	.02464	.00052	.00052	.02293	.00046	31.151	.00096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201081309 Acquired: 2/7/2012 11:45:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.877	.39874	F -17.316	.00082	-.00109	.00870	.00013
Stddev	5.655	.02037	1.719	.00078	.00152	.00082	.00047
%RSD	43.917	5.1076	9.9245	95.767	138.94	9.4280	371.78
#1	7.2680	.37669	-15.363	.00120	-.00106	.00895	-.00021
#2	18.578	.40268	-18.598	-.00008	.00041	.00778	.00066
#3	12.786	.41685	-17.987	.00133	-.00263	.00936	-.00007
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	-.00157	-.00141	.00020	-.00049	F -.15837
Stddev	.00006	.00111	.00083	.00022	.00006	.12859
%RSD	30.711	70.696	59.293	107.35	13.047	81.200
#1	.00013	-.00256	-.00211	.00006	-.00054	-.28127
#2	.00020	-.00178	-.00048	.00010	-.00050	-.02475
#3	.00024	-.00037	-.00163	.00045	-.00042	-.16907
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22218.	18717.
Stddev	36.	288.
%RSD	.16186	1.5368
#1	22206.	18979.
#2	22258.	18409.
#3	22189.	18761.

Approved: February 08, 2012

Sample Name: L1201081310 Acquired: 2/7/2012 11:48:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	-.00412	-.00006	.00203	-.00048	-.00004	.02227
Stddev	.00052	.03417	.00037	.00139	.00030	.00001	.01141
%RSD	140.46	828.33	621.89	68.523	63.293	31.012	51.256
#1	.00023	-.03672	-.00036	.00256	-.00031	-.00004	.02637
#2	-.00071	-.00708	-.00018	.00045	-.00083	-.00002	.00937
#3	-.00063	.03142	.00036	.00308	-.00030	-.00005	.03106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00002	.00123	.00180	.00927	.06309	-.00341
Stddev	.00011	.00010	.00017	.00026	.00202	.06718	.00245
%RSD	153.00	594.08	13.908	14.682	21.770	106.48	71.921
#1	-.00001	-.00007	.00125	.00206	.00741	.09513	-.00061
#2	.00019	.00009	.00140	.00181	.00899	.10825	-.00519
#3	.00003	-.00008	.00105	.00153	.01141	-.01411	-.00444
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02653	-.00019	.00003	.02689	.00046	32.138	.00094
Stddev	.02077	.00012	.00025	.01878	.00030	39.777	.00120
%RSD	78.277	62.208	971.55	69.842	65.268	123.77	127.37
#1	.00293	-.00023	-.00026	.04831	.00040	77.831	.00232
#2	.03465	-.00005	.00023	.01328	.00078	13.335	.00037
#3	.04202	-.00027	.00011	.01906	.00019	5.2470	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201081310 Acquired: 2/7/2012 11:48:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 17.315	.39179	F -19.058	.00021	-.00100	.00934	.00024
Stddev	7.384	.01548	2.743	.00032	.00167	.00071	.00008
%RSD	42.646	3.9514	14.392	153.43	167.34	7.6075	33.806
#1	10.518	.37440	-16.130	.00004	-.00239	.00870	.00033
#2	25.172	.40409	-21.568	.00001	.00086	.01011	.00020
#3	16.256	.39687	-19.476	.00059	-.00147	.00921	.00018
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00035	-.00035	-.00002	-.00082	.18632
Stddev	.00003	.00060	.00172	.00021	.00007	.08365
%RSD	16.499	170.60	497.58	980.77	8.1379	44.897
#1	.00014	-.00034	-.00158	.00017	-.00086	.26820
#2	.00015	.00066	-.00108	.00000	-.00074	.10100
#3	.00019	.00072	.00162	-.00024	-.00085	.18977
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22265.	19164.
Stddev	124.	220.
%RSD	.55693	1.1457
#1	22330.	19318.
#2	22344.	19263.
#3	22122.	18913.

Approved: February 08, 2012

Sample Name: L1201081311 Acquired: 2/7/2012 11:52:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	-.01242	.00007	.00186	-.00052	-.00001	.05087
Stddev	.00065	.03347	.00034	.00138	.00015	.00002	.00575
%RSD	115.89	269.40	495.41	74.305	28.250	176.49	11.312
#1	-.00032	.02606	.00004	.00344	-.00054	-.00004	.04955
#2	-.00007	-.02854	.00042	.00131	-.00037	.00001	.05717
#3	-.00130	-.03479	-.00026	.00084	-.00066	-.00001	.04589
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.00001	.00106	.00287	.02333	.01758	-.00529
Stddev	.00001	.00008	.00013	.00049	.00216	.02784	.00315
%RSD	22.268	1085.6	12.086	16.985	9.2777	158.33	59.502
#1	-.00008	.00004	.00094	.00235	.02085	.04259	-.00647
#2	-.00006	-.00008	.00106	.00295	.02430	-.01241	-.00768
#3	-.00005	.00006	.00119	.00332	.02484	.02257	-.00172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00228	.00013	-.00001	.05995	.00048	19.961	-.00004
Stddev	.01103	.00015	.00015	.01171	.00071	9.604	.00167
%RSD	482.86	110.53	1671.6	19.525	147.04	48.112	4523.5
#1	.01045	.00030	.00010	.07165	.00129	16.348	-.00168
#2	-.00866	.00008	-.00018	.04823	.00016	12.688	-.00009
#3	-.00864	.00002	.00005	.05998	-.00001	30.847	.00165
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201081311 Acquired: 2/7/2012 11:52:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.139	.42986	F -18.284	.00102	.00051	.01918	-.00013
Stddev	5.156	.01582	2.651	.00219	.00278	.00161	.00040
%RSD	25.601	3.6804	14.500	214.04	546.12	8.3902	304.87
#1	22.987	.42438	-18.577	.00300	-.00102	.01929	-.00059
#2	14.187	.44769	-15.499	.00140	-.00117	.01752	.00009
#3	23.242	.41750	-20.777	-.00133	.00372	.02074	.00010
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00075	.00009	-.00007	.00108	.51427
Stddev	.00007	.00102	.00205	.00013	.00007	.17042
%RSD	50.918	134.74	2396.6	182.71	6.7026	33.139
#1	.00006	-.00042	.00205	-.00005	.00102	.70960
#2	.00018	.00137	-.00205	.00005	.00116	.39585
#3	.00020	.00131	.00026	-.00021	.00106	.43738
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22580.	19602.
Stddev	77.	136.
%RSD	.34061	.69555
#1	22586.	19594.
#2	22654.	19469.
#3	22501.	19742.

Approved: February 08, 2012

Sample Name: L1201081312 Acquired: 2/7/2012 11:55:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.02086	.00070	.00277	-.00033	-.00004	.04002
Stddev	.00046	.03088	.00076	.00144	.00012	.00001	.00275
%RSD	949.13	148.00	108.42	51.874	37.229	30.417	6.8674
#1	.00002	-.01536	.00096	.00375	-.00026	-.00005	.03722
#2	.00052	.00689	.00130	.00344	-.00026	-.00003	.04011
#3	-.00039	-.05412	-.00015	.00112	-.00047	-.00003	.04272
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00009	.00218	.00146	.01323	-.04997	.00246
Stddev	.00002	.00012	.00030	.00016	.00656	.06652	.00063
%RSD	284.34	137.11	13.636	10.938	49.616	133.12	25.752
#1	.00001	.00017	.00247	.00133	.01025	.02218	.00314
#2	-.00002	.00014	.00187	.00164	.00868	-.10886	.00188
#3	-.00002	-.00005	.00219	.00140	.02075	-.06324	.00235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01840	-.00035	.00001	.02818	.00110	23.299	-.00146
Stddev	.00482	.00059	.00026	.01936	.00030	11.419	.00151
%RSD	26.190	168.43	2089.7	68.716	27.100	49.010	103.73
#1	.01293	-.00093	-.00022	.00622	.00077	19.495	-.00196
#2	.02027	.00026	.00029	.04282	.00120	14.267	-.00266
#3	.02200	-.00039	-.00003	.03549	.00134	36.134	.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Sample Name: L1201081312 Acquired: 2/7/2012 11:55:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.236	.71877	F -33.159	.00251	-.00142	.01065	.00002
Stddev	9.329	.02459	.902	.00092	.00255	.00086	.00019
%RSD	91.139	3.4210	2.7209	36.843	178.93	8.1108	910.29
#1	4.9237	.72130	-34.107	.00356	-.00272	.01165	.00018
#2	21.008	.69301	-32.311	.00183	.00151	.01010	.00007
#3	4.7764	.74199	-33.060	.00213	-.00306	.01021	-.00019
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00011	-.00013	-.00008	-.00049	F -.08456
Stddev	.00010	.00091	.00156	.00041	.00009	.13472
%RSD	66.525	815.23	1233.1	537.31	17.930	159.32
#1	.00005	.00007	.00003	.00039	-.00039	.07057
#2	.00026	-.00110	-.00175	-.00035	-.00054	-.17212
#3	.00016	.00069	.00135	-.00027	-.00055	-.15213
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21992.	19276.
Stddev	136.	429.
%RSD	.61644	2.2250
#1	22129.	18785.
#2	21858.	19461.
#3	21989.	19581.

Approved: February 08, 2012

Sample Name: L1201082401 Acquired: 2/7/2012 11:59:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	-.03051	-.00126	.00184	-.00093	-.00004	.03346
Stddev	.00015	.01200	.00096	.00067	.00010	.00003	.01025
%RSD	136.81	39.339	76.360	36.450	11.085	69.909	30.633
#1	.00006	-.03024	-.00152	.00222	-.00087	-.00001	.02676
#2	-.00023	-.04264	-.00020	.00225	-.00105	-.00007	.02836
#3	-.00017	-.01864	-.00207	.00107	-.00088	-.00004	.04526
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00004	.00171	.00090	.01187	-.11668	.00769
Stddev	.00008	.00009	.00007	.00029	.00278	.04472	.00202
%RSD	254.59	220.57	3.9612	32.236	23.425	38.328	26.311
#1	.00000	-.00006	.00165	.00084	.00869	-.12895	.00697
#2	-.00012	.00007	.00169	.00121	.01305	-.06710	.00997
#3	.00003	.00012	.00178	.00064	.01386	-.15398	.00612
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01049	-.00012	-.00027	.01720	.00139	29.619	.00206
Stddev	.00788	.00046	.00008	.00685	.00014	13.231	.00056
%RSD	75.092	392.93	29.430	39.802	10.010	44.670	27.251
#1	-.01405	-.00064	-.00029	.02034	.00142	15.884	.00194
#2	-.01596	.00019	-.00018	.00935	.00124	42.281	.00267
#3	-.00146	.00011	-.00033	.02192	.00151	30.693	.00156
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082401 Acquired: 2/7/2012 11:59:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 14.060	.34521	F -15.099	.00110	-.00136	.00752	-.00017
Stddev	6.439	.02724	2.910	.00011	.00065	.00125	.00015
%RSD	45.793	7.8912	19.271	10.062	47.788	16.676	87.989
#1	21.394	.37145	-17.792	.00120	-.00124	.00835	-.00020
#2	11.451	.34711	-15.493	.00098	-.00079	.00608	-.00030
#3	9.3353	.31707	-12.012	.00111	-.00207	.00814	-.00001
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00096	.00027	.00020	.00021	.17861
Stddev	.00011	.00165	.00080	.00026	.00004	.07614
%RSD	78.577	171.06	296.98	128.43	18.335	42.631
#1	.00015	-.00021	-.00064	.00021	.00023	.09997
#2	.00023	.00026	.00061	-.00006	.00017	.25199
#3	.00002	.00285	.00083	.00045	.00023	.18387
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	23599.	20435.
Stddev	314.	383.
%RSD	1.3314	1.8761
#1	23338.	20432.
#2	23948.	20054.
#3	23512.	20821.

Approved: February 08, 2012

Sample Name: L1201082402 Acquired: 2/7/2012 12:02:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	-.02900	.00204	.00244	-.00035	-.00003	.05196
Stddev	.00014	.01674	.00015	.00068	.00013	.00001	.01167
%RSD	33.125	57.722	7.3330	27.733	37.046	41.036	22.454
#1	-.00041	-.04773	.00221	.00271	-.00027	-.00004	.06438
#2	-.00057	-.01549	.00191	.00293	-.00050	-.00002	.05027
#3	-.00029	-.02380	.00200	.00167	-.00029	-.00002	.04123
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	-.00018	.00107	.00139	.01747	-.01707	.00017
Stddev	.00011	.00014	.00036	.00043	.00495	.01761	.00108
%RSD	253.71	77.478	33.658	30.654	28.304	103.16	636.89
#1	-.00014	-.00027	.00088	.00153	.01181	.00262	.00025
#2	.00008	-.00002	.00149	.00172	.01965	-.02254	-.00094
#3	-.00008	-.00024	.00084	.00091	.02096	-.03131	.00120
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00492	.00016	-.00008	.07346	.00012	F -2.1879	-.00055
Stddev	.00938	.00032	.00039	.01489	.00032	3.6908	.00172
%RSD	190.78	192.99	514.98	20.273	271.92	168.69	313.01
#1	-.00572	-.00020	.00031	.07946	.00044	1.6547	.00136
#2	.01203	.00032	-.00007	.05650	.00013	-2.5130	-.00198
#3	.00845	.00037	-.00047	.08442	-.00021	-5.7053	-.00102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082402 Acquired: 2/7/2012 12:02:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.038	.38431	F -16.896	.00239	-.00325	.00807	-.00017
Stddev	2.930	.01865	2.219	.00114	.00185	.00080	.00030
%RSD	14.622	4.8533	13.131	47.687	56.932	9.8792	180.24
#1	19.324	.37920	-18.882	.00200	-.00392	.00775	-.00029
#2	23.260	.40498	-17.304	.00367	-.00467	.00898	.00018
#3	17.532	.36874	-14.502	.00149	-.00116	.00749	-.00038
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00077	-.00069	.00005	-.00063	F -.04362
Stddev	.00017	.00066	.00039	.00027	.00008	.07778
%RSD	118.94	85.795	56.344	533.89	13.339	178.29
#1	.00027	.00113	-.00085	.00033	-.00069	-.12568
#2	-.00005	.00001	-.00098	.00002	-.00053	-.03420
#3	.00021	.00117	-.00025	-.00021	-.00067	.02901
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22179.	19756.
Stddev	158.	109.
%RSD	.71407	.55001
#1	22326.	19754.
#2	22011.	19649.
#3	22200.	19866.

Approved: February 08, 2012

Sample Name: L1201082403 Acquired: 2/7/2012 12:06:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	-.00365	.00181	.00118	-.00056	-.00004	.11114
Stddev	.00048	.03271	.00191	.00026	.00022	.00002	.00120
%RSD	283.56	896.58	105.70	22.142	38.123	57.983	1.0775
#1	-.00067	-.01733	.00253	.00104	-.00078	-.00001	.11001
#2	-.00012	-.02730	-.00036	.00101	-.00057	-.00006	.11240
#3	.00029	.03369	.00325	.00148	-.00035	-.00005	.11101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.00001	.00144	.00175	.01009	.00736	.00090
Stddev	.00006	.00014	.00046	.00003	.00166	.06385	.00159
%RSD	166.13	2344.2	31.698	1.9315	16.421	867.78	176.74
#1	-.00003	.00010	.00093	.00171	.00826	-.03510	.00194
#2	-.00011	.00007	.00157	.00178	.01055	-.02361	.00169
#3	.00002	-.00015	.00181	.00175	.01148	.08078	-.00093
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02562	.00024	-.00009	.02995	.00019	F -6.7104	.00053
Stddev	.00960	.00020	.00042	.00920	.00007	15.649	.00118
%RSD	37.484	84.653	493.64	30.703	36.038	233.21	222.55
#1	.03401	.00046	.00018	.02002	.00024	11.289	.00176
#2	.02769	.00008	-.00057	.03166	.00020	-17.090	.00043
#3	.01515	.00016	.00014	.03818	.00011	-14.331	-.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Sample Name: L1201082403 Acquired: 2/7/2012 12:06:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.699	.17525	F -.81347	.00268	-.00104	.00971	-.00007
Stddev	7.870	.04751	1.4402	.00126	.00218	.00089	.00034
%RSD	73.561	27.108	177.05	46.916	209.87	9.1869	457.42
#1	13.368	.23002	.83577	.00136	-.00133	.00928	.00026
#2	1.8414	.14536	-1.8231	.00282	-.00306	.00911	-.00006
#3	16.888	.15036	-1.4531	.00387	.00127	.01073	-.00042
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	-.00007	-.00012	.00014	-.00057	F -.03273
Stddev	.00009	.00055	.00068	.00020	.00016	.10003
%RSD	43.601	761.37	571.60	144.85	27.324	305.64
#1	.00027	.00049	-.00051	.00037	-.00053	-.00967
#2	.00027	-.00061	.00067	.00001	-.00074	.05376
#3	.00011	-.00010	-.00051	.00004	-.00044	-.14227
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22105.	18926.
Stddev	323.	77.
%RSD	1.4592	.40698
#1	22056.	18931.
#2	22449.	19001.
#3	21809.	18847.

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 12:09:34 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39678	9.9466	.39155	.49230	.98017	.04866	9.8448
Stddev	.00328	.0693	.00256	.00469	.00261	.00035	.0355
%RSD	.82549	.69636	.65314	.95211	.26677	.71685	.36088
#1	.39313	10.012	.38935	.48696	.97971	.04827	9.8790
#2	.39776	9.9530	.39436	.49423	.98299	.04893	9.8474
#3	.39945	9.8744	.39094	.49572	.97782	.04879	9.8081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04951	.19859	.49213	.49396	3.9292	49.566	.97554
Stddev	.00028	.00073	.00533	.00294	.0213	.113	.00628
%RSD	.56870	.36847	1.0838	.59492	.54257	.22731	.64331
#1	.04919	.19775	.48598	.49064	3.9249	49.677	.98180
#2	.04966	.19910	.49555	.49500	3.9524	49.569	.97557
#3	.04969	.19892	.49484	.49623	3.9104	49.451	.96925
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.8456	.49224	.98441	49.788	.49691	F 13.884	.49748
Stddev	.0447	.00323	.00250	.353	.00144	24.214	.00339
%RSD	.45391	.65711	.25441	.70941	.28944	174.39	.68200
#1	9.8890	.49548	.98187	50.191	.49547	-7.2097	.49417
#2	9.8480	.49222	.98449	49.642	.49835	40.324	.50095
#3	9.7997	.48902	.98688	49.531	.49691	8.5390	.49734
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						10.000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 12:09:34 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.939	9.9466	F 19.294	1.1890	.39301	4.9279	.98797
Stddev	1.631	.0316	1.954	.0032	.00216	.0116	.00412
%RSD	12.608	.31789	10.127	.26930	.55049	.23523	.41732
#1	14.185	9.9180	20.902	1.1859	.39087	4.9152	.98335
#2	13.540	9.9414	17.120	1.1889	.39519	4.9378	.99126
#3	11.093	9.9806	19.862	1.1923	.39299	4.9308	.98932
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98619	.97710	.50725	.98476	.98452	F .84327
Stddev	.00685	.00592	.00313	.00740	.00424	.04411
%RSD	.69435	.60582	.61770	.75112	.43065	5.2313
#1	.99375	.98378	.50442	.97627	.97969	.79233
#2	.98442	.97505	.50670	.98979	.98625	.86815
#3	.98040	.97249	.51062	.98821	.98762	.86931
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21276.	18351.
Stddev	158.	11.
%RSD	.74131	.06135
#1	21458.	18360.
#2	21186.	18354.
#3	21184.	18339.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 12:12:47 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	-.01501	.00119	.00163	-.00006	-.00004	-.00733
Stddev	.00055	.03285	.00155	.00101	.00012	.00003	.00444
%RSD	239.40	218.92	129.97	61.865	214.27	78.687	60.536
#1	.00040	.02262	-.00035	.00048	.00008	-.00005	-.00861
#2	-.00052	-.02965	.00118	.00208	-.00016	-.00006	-.01099
#3	-.00058	-.03799	.00274	.00235	-.00009	.00000	-.00240
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	-.00002	.00046	.00051	-.00302	.05302	-.00635
Stddev	.00009	.00021	.00025	.00004	.00449	.03575	.00209
%RSD	274.83	956.26	55.220	7.3593	148.84	67.425	32.904
#1	.00002	-.00009	.00075	.00055	-.00806	.08975	-.00599
#2	.00002	-.00019	.00034	.00049	.00053	.01835	-.00446
#3	-.00014	.00021	.00028	.00048	-.00151	.05096	-.00859
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01902	-.00015	.00097	.02549	-.00033	F 7.1026	.00087
Stddev	.00422	.00082	.00026	.02085	.00056	25.326	.00210
%RSD	22.209	540.87	26.546	81.798	168.51	356.58	241.70
#1	.01457	.00078	.00127	.00729	-.00098	6.0065	.00067
#2	.02297	-.00047	.00082	.04824	-.00007	-17.658	.00306
#3	.01951	-.00077	.00082	.02094	.00005	32.959	-.00112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						1.0000	
Low Limit						-1.1000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 12:12:47 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.808	-.27294	F 14.507	.00275	.00114	.00348	.00028
Stddev	13.137	.04549	3.074	.00134	.00198	.00134	.00021
%RSD	78.160	16.668	21.192	48.613	173.96	38.434	75.318
#1	2.1159	-.30662	14.632	.00394	.00013	.00481	.00015
#2	27.424	-.22119	11.372	.00130	.00342	.00350	.00016
#3	20.884	-.29101	17.517	.00302	-.00014	.00213	.00052
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	1.0000		1.0000				
Low Limit	-1.0000		-1.0000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00030	-.00003	-.00026	.00030	-.04038
Stddev	.00012	.00018	.00097	.00024	.00005	.02332
%RSD	783.83	60.771	2854.0	91.993	17.604	57.747
#1	.00012	-.00050	-.00069	-.00050	.00025	-.01382
#2	.00004	-.00025	.00108	-.00026	.00029	-.04982
#3	-.00011	-.00015	-.00049	-.00002	.00036	-.05749
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21759.	18122.
Stddev	341.	272.
%RSD	1.5649	1.5000
#1	21620.	18098.
#2	21509.	18405.
#3	22147.	17862.

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:16:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: FE 1000 PPM

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00241	-.04415	-.00656	.35136	-.00076	.00090
Stddev	.00071	.01107	.00131	.00691	.00018	.00005
%RSD	29.247	25.064	19.890	1.9670	24.018	5.2469
#1	-.00208	-.04376	-.00766	.34762	-.00055	.00095
#2	-.00194	-.05540	-.00512	.35934	-.00087	.00086
#3	-.00323	-.03328	-.00691	.34713	-.00086	.00090
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04487	F -.01394	.01237	F -.04410	.01623	F 963.24
Stddev	.00434	.00018	.00010	.00047	.00298	7.45
%RSD	9.6696	1.2867	.78090	1.0562	18.358	.77304
#1	-.04846	-.01377	.01231	-.04460	.01479	963.30
#2	-.04612	-.01413	.01233	-.04402	.01425	970.65
#3	-.04005	-.01392	.01248	-.04368	.01966	955.76
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Fail
High Limit		16.200		45.000		900.00
Low Limit		-.00050		-.00300		-.02000

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.06221	-.00560	-.00600	.01875	-.00367	.02101
Stddev	.04697	.00065	.00750	.00087	.00012	.00546
%RSD	75.490	11.675	124.96	4.6231	3.3556	26.007
#1	-.01242	-.00631	-.00959	.01827	-.00369	.01656
#2	-.06851	-.00547	.00262	.01823	-.00354	.01935
#3	-.10572	-.00502	-.01104	.01975	-.00379	.02711
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:16:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: FE 1000 PPM

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00555	kF -4789.9	.03014	F 17.264	F -.10981	F 63.699
Stddev	.00126	33.6	.00183	4.742	.02734	1.665
%RSD	22.696	.70163	6.0793	27.465	24.894	2.6143
#1	.00412	k -4787.5	.02825	12.113	-.07950	61.776
#2	.00602	k -4757.6	.03191	21.448	-.11732	64.667
#3	.00651	k -4824.6	.03026	18.230	-.13260	64.653
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00356	.00293	.00645	.00512	.00089	.00227
Stddev	.00105	.00222	.00209	.00007	.00009	.00081
%RSD	29.644	75.898	32.382	1.4288	9.8247	35.752
#1	-.00322	.00356	.00494	.00513	.00079	.00160
#2	-.00474	.00477	.00557	.00519	.00093	.00203
#3	-.00271	.00046	.00883	.00505	.00095	.00317
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	.00394	-.00464	.00352	^ *****
Stddev	.00058	.00049	.00010	-----
%RSD	14.750	10.659	2.7542	-----
#1	.00447	-.00494	.00361	^ -----
#2	.00402	-.00491	.00342	^ -----
#3	.00332	-.00407	.00352	^ -----
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:16:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: FE 1000 PPM

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22034.**	**20017.**
Stddev	162.	79.
%RSD	.73346	.39328
#1	21941.	20058.
#2	22220.	20066.
#3	21940.	19926.

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:19:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1722) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: CA 1000 PPM

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00102	-.01388	.00001	.00257	.00073	-.00004	F 941.46
Stddev	.00026	.04332	.00059	.00111	.00035	.00002	19.83
%RSD	25.245	312.15	6747.2	43.180	47.886	49.422	2.1065
#1	-.00130	-.04372	-.00046	.00129	.00054	-.00005	928.89
#2	-.00095	.03581	-.00019	.00313	.00114	-.00005	964.32
#3	-.00080	-.03373	.00068	.00328	.00053	-.00002	931.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							900.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00018	.01733	-.00009	.20605	.05230	.04449
Stddev	.00004	.00026	.00067	.00058	.01940	.04435	.00133
%RSD	95.350	144.74	3.8386	641.42	9.4156	84.796	2.9930
#1	-.00008	.00048	.01787	.00058	.22819	.01580	.04300
#2	-.00006	-.00002	.01754	-.00048	.19791	.10166	.04558
#3	.00000	.00008	.01659	-.00038	.19204	.03944	.04488
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02452	-.00013	-.00009	.04392	-.00133	F -104.29	.00365
Stddev	.02848	.00047	.00018	.01065	.00027	15.49	.00172
%RSD	116.16	367.69	186.88	24.252	20.137	14.848	47.153
#1	-.00288	-.00039	.00004	.05596	-.00125	-121.87	.00563
#2	.05397	.00042	-.00003	.04006	-.00112	-98.373	.00254
#3	.02246	-.00041	-.00029	.03574	-.00164	-92.643	.00278
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: LRC Acquired: 2/7/2012 12:19:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1722) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: CA 1000 PPM

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 22.789	F 960.87	F -183.44	.00013	-.00436	.00827	.00003
Stddev	2.661	1.22	4.52	.00029	.00257	.00111	.00024
%RSD	11.676	.12711	2.4646	222.43	59.028	13.369	850.39
#1	22.879	960.82	-188.41	.00044	-.00169	.00715	.00029
#2	20.084	962.12	-179.57	.00011	-.00682	.00828	-.00019
#3	25.404	959.68	-182.34	-.00015	-.00457	.00937	-.00001
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.04085	-.02164	-.00105	.00018	.00935	F -.51688
Stddev	.00172	.00052	.00094	.00029	.00003	.28211
%RSD	4.2027	2.4086	89.820	163.37	.30284	54.580
#1	-.03973	-.02129	-.00024	-.00015	.00932	-.19429
#2	-.04282	-.02224	-.00082	.00026	.00934	-.71743
#3	-.03999	-.02139	-.00209	.00042	.00938	-.63891
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit	4.5000					45.000
Low Limit	-.01000					-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20023.	18531.
Stddev	165.	139.
%RSD	.82366	.75011
#1	20188.	18687.
#2	19859.	18423.
#3	20022.	18482.

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:19:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: CA 1000 PPM

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00102	-.01388	.00001	.00257	.00073	-.00004	F 941.46
Stddev	.00026	.04332	.00059	.00111	.00035	.00002	19.83
%RSD	25.245	312.15	6747.2	43.180	47.886	49.422	2.1065
#1	-.00130	-.04372	-.00046	.00129	.00054	-.00005	928.89
#2	-.00095	.03581	-.00019	.00313	.00114	-.00005	964.32
#3	-.00080	-.03373	.00068	.00328	.00053	-.00002	931.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							900.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00018	.01733	-.00008	.20605	.05230	.04449
Stddev	.00004	.00026	.00067	.00059	.01940	.04435	.00133
%RSD	95.350	144.74	3.8386	739.96	9.4156	84.796	2.9930
#1	-.00008	.00048	.01787	.00059	.22819	.01580	.04300
#2	-.00006	-.00002	.01754	-.00047	.19791	.10166	.04558
#3	.00000	.00008	.01659	-.00037	.19204	.03944	.04488
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02452	-.00013	-.00009	.04392	-.00133	F -104.29	.00365
Stddev	.02848	.00047	.00018	.01065	.00027	15.49	.00172
%RSD	116.16	367.69	186.88	24.252	20.137	14.848	47.153
#1	-.00288	-.00039	.00004	.05596	-.00125	-121.87	.00563
#2	.05397	.00042	-.00003	.04006	-.00112	-98.373	.00254
#3	.02246	-.00041	-.00029	.03574	-.00164	-92.643	.00278
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: LRC Acquired: 2/7/2012 12:19:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: CA 1000 PPM

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 22.789	F 960.87	F -183.44	.00013	-.00436	.00827	.00003
Stddev	2.661	1.22	4.52	.00029	.00257	.00111	.00024
%RSD	11.676	.12711	2.4646	222.43	59.028	13.369	850.39
#1	22.879	960.82	-188.41	.00044	-.00169	.00715	.00029
#2	20.084	962.12	-179.57	.00011	-.00682	.00828	-.00019
#3	25.404	959.68	-182.34	-.00015	-.00457	.00937	-.00001
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.04085	-.02164	-.00105	.00018	.00935	F -.51688
Stddev	.00172	.00052	.00094	.00029	.00003	.28211
%RSD	4.2027	2.4086	89.820	163.37	.30284	54.580
#1	-.03973	-.02129	-.00024	-.00015	.00932	-.19429
#2	-.04282	-.02224	-.00082	.00026	.00934	-.71743
#3	-.03999	-.02139	-.00209	.00042	.00938	-.63891
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit	4.5000					45.000
Low Limit	-.01000					-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20023.	18531.
Stddev	165.	139.
%RSD	.82366	.75011
#1	20188.	18687.
#2	19859.	18423.
#3	20022.	18482.

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:23:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1722) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: MG 1000 PPM

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	-.03535	.00045	.00018	.00045	-.00005	.06491
Stddev	.00030	.02200	.00137	.00109	.00033	.00001	.02492
%RSD	226.54	62.231	306.90	599.72	72.270	19.275	38.396
#1	.00017	-.02062	.00000	.00029	.00075	-.00004	.09088
#2	-.00013	-.02479	.00198	-.00096	.00010	-.00005	.06267
#3	-.00043	-.06063	-.00064	.00121	.00051	-.00006	.04119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00158	.00010	.00165	.00179	.00175	.09429	.00195
Stddev	.00006	.00006	.00038	.00018	.00285	.03219	.00341
%RSD	3.5835	54.038	23.197	9.8127	163.34	34.138	174.87
#1	.00154	.00014	.00206	.00161	-.00132	.08648	-.00027
#2	.00164	.00013	.00131	.00180	.00433	.12967	.00024
#3	.00155	.00004	.00157	.00197	.00223	.06673	.00588
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1020.4	F -.00666	-.00003	.04082	-.00129	F -42.660	.00034
Stddev	3.6	.00033	.00010	.00616	.00052	16.354	.00328
%RSD	.35166	4.9714	393.53	15.086	40.770	38.335	974.57
#1	1017.7	-.00703	-.00001	.04792	-.00097	-55.670	-.00338
#2	1024.5	-.00657	.00007	.03764	-.00099	-24.302	.00283
#3	1019.2	-.00639	-.00013	.03690	-.00189	-48.008	.00156
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	900.00	180.00				900.00	
Low Limit	-.10000	-.00300				-.00400	

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:23:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1722) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: MG 1000 PPM

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 19.595	F -.18218	3.8925	-.00122	-.00439	.00026	.00023
Stddev	2.224	.03831	2.6470	.00305	.00264	.00235	.00025
%RSD	11.351	21.027	68.004	249.17	60.152	906.72	107.34
#1	22.098	-.15707	2.9554	.00207	-.00160	.00209	.00027
#2	18.842	-.22627	1.8414	-.00394	-.00685	.00107	-.00003
#3	17.845	-.16319	6.8806	-.00180	-.00471	-.00238	.00046
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000					
Low Limit	-.00400	-.00400					

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	-.00101	-.00024	-.00136	.00406	F -.14465
Stddev	.00010	.00064	.00102	.00019	.00004	.09877
%RSD	116.45	63.960	419.87	13.925	1.0579	68.286
#1	-.00001	-.00112	-.00014	-.00149	.00404	-.24501
#2	.00008	-.00159	-.00131	-.00144	.00404	-.04755
#3	.00020	-.00031	.00072	-.00114	.00411	-.14137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	19767.	18239.
Stddev	63.	54.
%RSD	.32112	.29769
#1	19813.	18228.
#2	19695.	18191.
#3	19793.	18298.

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:23:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: MG 1000 PPM

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	-.03535	.00045	.00018	.00045	-.00005	.06491
Stddev	.00030	.02200	.00137	.00109	.00033	.00001	.02492
%RSD	226.54	62.231	306.90	599.72	72.270	19.275	38.396
#1	.00017	-.02062	.00000	.00029	.00075	-.00004	.09088
#2	-.00013	-.02479	.00198	-.00096	.00010	-.00005	.06267
#3	-.00043	-.06063	-.00064	.00121	.00051	-.00006	.04119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00158	.00010	.00165	.00179	.00175	.09429	.00195
Stddev	.00006	.00006	.00038	.00018	.00285	.03219	.00341
%RSD	3.5835	54.038	23.197	9.8180	163.34	34.138	174.87
#1	.00154	.00014	.00206	.00161	-.00132	.08648	-.00027
#2	.00164	.00013	.00131	.00180	.00433	.12967	.00024
#3	.00155	.00004	.00157	.00196	.00223	.06673	.00588
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1020.4	F -.00666	-.00003	.04082	-.00129	F -42.660	.00034
Stddev	3.6	.00033	.00010	.00616	.00052	16.354	.00328
%RSD	.35166	4.9714	393.53	15.086	40.770	38.335	974.57
#1	1017.7	-.00703	-.00001	.04792	-.00097	-55.670	-.00338
#2	1024.5	-.00657	.00007	.03764	-.00099	-24.302	.00283
#3	1019.2	-.00639	-.00013	.03690	-.00189	-48.008	.00156
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	900.00	180.00				900.00	
Low Limit	-.10000	-.00300				-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: LRC Acquired: 2/7/2012 12:23:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: MG 1000 PPM

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 19.595	F -.18218	3.8925	-.00122	-.00439	.00026	.00023
Stddev	2.224	.03831	2.6470	.00305	.00264	.00235	.00025
%RSD	11.351	21.027	68.004	249.17	60.152	906.72	107.34
#1	22.098	-.15707	2.9554	.00207	-.00160	.00209	.00027
#2	18.842	-.22627	1.8414	-.00394	-.00685	.00107	-.00003
#3	17.845	-.16319	6.8806	-.00180	-.00471	-.00238	.00046
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000					
Low Limit	-.00400	-.00400					

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	-.00101	-.00024	-.00136	.00406	F -.14465
Stddev	.00010	.00064	.00102	.00019	.00004	.09877
%RSD	116.45	63.960	419.87	13.925	1.0579	68.286
#1	-.00001	-.00112	-.00014	-.00149	.00404	-.24501
#2	.00008	-.00159	-.00131	-.00144	.00404	-.04755
#3	.00020	-.00031	.00072	-.00114	.00411	-.14137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	19767.	18239.
Stddev	63.	54.
%RSD	.32112	.29769
#1	19813.	18228.
#2	19695.	18191.
#3	19793.	18298.

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:36:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: AL 900 PPM

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	F 862.73	-.00821	-.00023	-.00070	-.00010	.02005
Stddev	.00024	3.05	.00169	.00015	.00031	.00001	.00748
%RSD	144.89	.35351	20.610	65.612	43.883	10.538	37.295
#1	.00042	859.24	-.00751	-.00034	-.00036	-.00011	.02868
#2	-.00004	864.01	-.00698	-.00006	-.00078	-.00011	.01565
#3	.00010	864.92	-.01014	-.00028	-.00096	-.00009	.01582
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		810.00					
Low Limit		-.10000					

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00010	-.00006	.00248	.01164	.01708	-.00382
Stddev	.00001	.00015	.00026	.00018	.00562	.02614	.00117
%RSD	16.321	148.06	459.02	7.1171	48.305	153.04	30.581
#1	.00006	.00025	.00019	.00228	.00764	-.01310	-.00309
#2	.00005	-.00005	-.00032	.00258	.00921	.03156	-.00517
#3	.00004	.00010	-.00003	.00259	.01807	.03278	-.00320
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00712	.00207	.00005	.03283	-.00147	F 4400.7	F -.01191
Stddev	.00846	.00032	.00053	.01318	.00024	26.2	.00196
%RSD	118.78	15.355	1003.7	40.137	16.609	.59536	16.471
#1	.01341	.00196	-.00043	.03205	-.00128	4371.9	-.01085
#2	.01044	.00182	-.00004	.02006	-.00139	4407.2	-.01071
#3	-.00249	.00243	.00062	.04638	-.00174	4423.1	-.01418
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit						900.00	180.00
Low Limit						-.00400	-.00500

Approved: February 08, 2012

Erin D. Long

Sample Name: LRC Acquired: 2/7/2012 12:36:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: AL 900 PPM

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 18.572	F -1.2862	F 31.648	-.01656	-.00373	.00891	.00960
Stddev	7.327	.0687	.360	.00241	.00311	.00176	.00047
%RSD	39.453	5.3407	1.1386	14.537	83.201	19.731	4.8620
#1	16.859	-1.3049	31.414	-.01632	-.00016	.00981	.00992
#2	12.253	-1.2101	32.063	-.01908	-.00525	.00689	.00982
#3	26.604	-1.3436	31.467	-.01428	-.00579	.01005	.00906
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00051	.00333	.00016	.00049	F -.08430
Stddev	.00015	.00038	.00214	.00023	.00010	.07191
%RSD	219.32	74.277	64.270	144.36	20.638	85.306
#1	.00019	-.00094	.00179	-.00006	.00059	-.12680
#2	-.00010	-.00022	.00578	.00041	.00049	-.00127
#3	.00011	-.00038	.00244	.00013	.00039	-.12484
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21752.	19385.
Stddev	73.	27.
%RSD	.33613	.14119
#1	21807.	19361.
#2	21669.	19380.
#3	21779.	19415.

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:39:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: MN 200 PPM

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00888	.24182	.00603	-.01365	-.00045	.00007	.00612
Stddev	.00038	.02203	.00149	.00114	.00011	.00001	.01192
%RSD	4.3228	9.1120	24.732	8.3259	25.252	17.309	194.89
#1	.00848	.26688	.00489	-.01399	-.00032	.00007	.01607
#2	.00924	.23309	.00548	-.01238	-.00050	.00006	.00937
#3	.00891	.22549	.00772	-.01457	-.00052	.00008	-.00709
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00049	.00076	F -.01466	.00139	.01445	.07893	-.00954
Stddev	.00009	.00010	.00062	.00060	.00838	.04094	.00097
%RSD	17.822	13.013	4.2212	43.288	57.993	51.871	10.202
#1	.00058	.00085	-.01530	.00204	.00688	.03461	-.00956
#2	.00041	.00065	-.01407	.00084	.01301	.08683	-.00856
#3	.00047	.00078	-.01460	.00130	.02346	.11533	-.01050
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			45.000				
Low Limit			-.00300				

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04368	F 191.30	F -.01108	.03682	.00106	F 1362.6	.02351
Stddev	.02831	.77	.00005	.01228	.00060	13.4	.00096
%RSD	64.803	.40092	.42792	33.350	56.171	.98407	4.0745
#1	.04564	191.90	-.01104	.03947	.00172	1376.7	.02284
#2	.01445	190.44	-.01106	.04756	.00054	1361.0	.02460
#3	.07097	191.55	-.01113	.02343	.00093	1350.0	.02308
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		180.00	9.0000			900.00	
Low Limit		-.00300	-.01000			-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: LRC Acquired: 2/7/2012 12:39:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: MN 200 PPM

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 19.868	F 29.613	F -1178.2	.00309	.07565	.00970	-.00007
Stddev	3.026	.155	10.5	.00123	.00078	.00064	.00027
%RSD	15.230	.52260	.89391	39.960	1.0349	6.6241	382.63
#1	17.079	29.682	-1177.0	.00406	.07477	.01000	-.00026
#2	23.085	29.722	-1189.2	.00170	.07627	.01013	-.00020
#3	19.438	29.436	-1168.3	.00350	.07591	.00896	.00024
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.00419	.08242	F -.02029	-.00041	F -.19234
Stddev	.00006	.00051	.00127	.00017	.00004	.09636
%RSD	131.16	12.224	1.5409	.81779	9.6183	50.097
#1	-.00001	-.00465	.08388	-.02037	-.00038	-.18691
#2	.00004	-.00427	.08180	-.02041	-.00045	-.09881
#3	.00012	-.00364	.08157	-.02010	-.00039	-.29129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
High Limit				90.000		45.000
Low Limit				-.01000		-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21448.	18661.
Stddev	153.	439.
%RSD	.71207	2.3509
#1	21311.	19070.
#2	21420.	18715.
#3	21613.	18197.

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:42:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: B 100 PPM

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00079	-.02711	.00625	89.848	-.00014	-.00001	-.00718
Stddev	.00031	.03436	.00116	3.084	.00032	.00005	.00250
%RSD	39.095	126.74	18.630	3.4323	220.77	395.16	34.858
#1	-.00103	-.02249	.00500	93.407	.00016	-.00007	-.00878
#2	-.00044	-.06355	.00730	88.168	-.00048	.00003	-.00429
#3	-.00091	.00470	.00644	87.969	-.00011	.00000	-.00846
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.00072	-.00042	.00003	.00144	.00249	.04411	-.00408
Stddev	.00007	.00010	.00024	.00057	.00377	.06931	.00150
%RSD	9.6805	23.822	922.45	39.807	151.35	157.14	36.834
#1	-.00076	-.00039	.00010	.00205	.00388	.06452	-.00557
#2	-.00064	-.00054	-.00024	.00134	.00536	.10091	-.00256
#3	-.00076	-.00035	.00022	.00092	-.00177	-.03312	-.00411
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	16.200						
Low Limit	-.00050						

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02209	.01479	.00056	.01741	-.00060	10.744	.00017
Stddev	.01071	.00454	.00031	.01822	.00031	31.386	.00197
%RSD	48.502	30.681	54.753	104.63	51.906	292.13	1152.5
#1	.00972	.01961	.00048	.03493	-.00058	46.955	-.00203
#2	.02852	.01414	.00030	.01875	-.00030	-8.6443	.00077
#3	.02802	.01061	.00090	-.00144	-.00093	-6.0791	.00177
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: LRC Acquired: 2/7/2012 12:42:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: B 100 PPM

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **15.189**	F **-.44245**	F **13.836**	**-.00115**	**-.00379**	**.00575**	**.00103**
Stddev	6.756	.02030	2.478	.00081	.00177	.00183	.00018
%RSD	44.481	4.5879	17.909	70.814	46.847	31.863	17.132
#1	15.878	-.44177	13.239	-.00198	-.00406	.00775	.00090
#2	21.575	-.46308	11.712	-.00112	-.00540	.00416	.00123
#3	8.1151	-.42250	16.559	-.00035	-.00189	.00535	.00095
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**-.00156**	**.00007**	**-.00005**	**-.00042**	F **-.19340**
Stddev	.00016	.00177	.00009	.00012	.00008	.18108
%RSD	145.21	113.89	135.74	227.65	18.151	93.626
#1	.00026	-.00208	.00016	-.00003	-.00040	-.40049
#2	-.00005	.00042	-.00003	.00006	-.00050	-.11483
#3	.00011	-.00301	.00008	-.00019	-.00035	-.06489
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22350.**	**18181.**
Stddev	854.	157.
%RSD	3.8191	.86327
#1	21369.	18068.
#2	22760.	18360.
#3	22921.	18116.

Approved: February 08, 2012

Erin D. Long

Sample Name: LRC Acquired: 2/7/2012 12:46:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: BA 90 PM

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	-.02709	.00257	.31099	F 86.518	-.00001	.01089
Stddev	.00010	.02958	.00194	.01977	2.380	.00002	.01681
%RSD	12.404	109.17	75.401	6.3572	2.7513	176.54	154.35
#1	-.00076	-.05920	.00474	.33172	85.574	.00000	.02961
#2	-.00096	-.00094	.00192	.30892	89.226	-.00003	.00598
#3	-.00081	-.02114	.00104	.29234	84.755	.00000	-.00291
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					81.000		
Low Limit					-.00500		

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01149	-.00482	-.00010	.00092	.00342	.02304	-.00531
Stddev	.00027	.00035	.00046	.00015	.00126	.03163	.00270
%RSD	2.3893	7.2926	483.38	16.740	36.759	137.27	50.941
#1	.01138	-.00442	-.00053	.00074	.00482	-.00441	-.00613
#2	.01181	-.00500	.00039	.00102	.00239	.01591	-.00751
#3	.01129	-.00505	-.00015	.00100	.00305	.05763	-.00229
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01106	.00027	-.00027	.02493	-.00128	24.411	-.00088
Stddev	.00816	.00007	.00012	.01667	.00011	17.424	.00043
%RSD	73.758	27.243	42.775	66.836	8.2882	71.377	48.482
#1	.00994	.00033	-.00026	.04048	-.00126	4.2936	-.00131
#2	.01972	.00030	-.00016	.02698	-.00118	34.227	-.00088
#3	.00352	.00019	-.00039	.00734	-.00139	34.712	-.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:46:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: BA 90 PM

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.391	F -.25379	F 14.596	.00276	.00131	.00943	.00017
Stddev	6.415	.06427	.894	.00196	.00191	.00155	.00009
%RSD	31.460	25.324	6.1259	70.966	145.35	16.409	55.524
#1	27.575	-.26054	15.187	.00188	-.00085	.00829	.00009
#2	18.361	-.18641	15.034	.00501	.00203	.00882	.00027
#3	15.236	-.31442	13.567	.00140	.00276	.01119	.00014
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.00005	.00089	-.00023	-.00062	F -.12304
Stddev	.00012	.00055	.00095	.00013	.00010	.12384
%RSD	36.979	1170.0	107.27	58.697	16.007	100.65
#1	.00019	.00048	.00141	-.00008	-.00073	.00390
#2	.00035	.00024	-.00021	-.00032	-.00053	-.24354
#3	.00042	-.00058	.00147	-.00029	-.00062	-.12949
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21885.	19439.
Stddev	159.	839.
%RSD	.72821	4.3153
#1	21900.	20284.
#2	22037.	19426.
#3	21719.	18606.

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:50:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: ZN 50 PPM

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.00032	.00070	.13332	.00634	.00008	-.01772
Stddev	.00075	.04282	.00111	.00558	.00155	.00002	.00594
%RSD	174.69	13337.	159.25	4.1845	24.440	20.457	33.543
#1	-.00127	-.04837	.00193	.13967	.00779	.00010	-.02424
#2	.00016	.01720	-.00025	.13109	.00653	.00007	-.01632
#3	-.00018	.03214	.00042	.12920	.00471	.00007	-.01260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	-.00002	.03577	.00047	-.00096	.01348	-.00509
Stddev	.00009	.00022	.00030	.00050	.00533	.03863	.00093
%RSD	121.62	960.83	.84815	107.32	553.94	286.66	18.331
#1	-.00017	-.00027	.03555	.00037	.00199	.05532	-.00408
#2	-.00005	.00004	.03565	.00101	.00223	-.02084	-.00528
#3	.00000	.00016	.03612	.00002	-.00711	.00595	-.00591
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00353	-.00045	-.00015	-.01349	-.00058	F -9.0662	.00013
Stddev	.01654	.00042	.00010	.02274	.00036	6.9854	.00209
%RSD	468.44	94.279	66.741	168.63	62.176	77.049	1580.9
#1	-.00242	-.00063	-.00004	-.02953	-.00025	-15.652	.00114
#2	.02222	.00004	-.00022	.01254	-.00053	-1.7405	.00152
#3	-.00921	-.00075	-.00021	-.02348	-.00096	-9.8057	-.00227
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: LRC Acquired: 2/7/2012 12:50:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: ZN 50 PPM

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **11.589**	F **-.30515**	F **15.213**	**-.00019**	**-.00072**	**.01048**	**.00014**
Stddev	7.329	.04749	1.944	.00063	.00137	.00074	.00023
%RSD	63.242	15.562	12.781	338.36	190.13	7.0979	163.59
#1	11.755	-.32464	17.295	-.00052	-.00212	.01005	.00007
#2	18.834	-.33979	14.899	.00054	.00062	.01134	-.00004
#3	4.1783	-.25102	13.445	-.00059	-.00067	.01005	.00039
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**-.00072**	**-.00046**	**.00010**	F **47.697**	F **-.05753**
Stddev	.00007	.00058	.00014	.00033	.810	.02414
%RSD	45.065	80.430	29.446	337.15	1.6983	41.962
#1	.00023	-.00095	-.00042	.00047	47.390	-.03086
#2	.00010	-.00114	-.00036	-.00014	47.085	-.07789
#3	.00013	-.00006	-.00062	-.00004	48.615	-.06382
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit					45.000	45.000
Low Limit					-.01000	-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21466.**	**17696.**
Stddev	313.	73.
%RSD	1.4571	.41200
#1	21480.	17740.
#2	21771.	17611.
#3	21146.	17736.

Approved: February 08, 2012

Sample Name: LRC Acquired: 2/7/2012 12:53:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: MO 10 PPM

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00003	k -.02877	k -.00401	k .07093	-.00032	k -.00001
Stddev	.00033	.03281	.00062	.00564	.00050	.00004
%RSD	1047.2	114.05	15.470	7.9485	155.91	335.47
#1	k .00035	k -.04794	k -.00415	k .07699	-.00040	k -.00006
#2	-.00032	-.04747	-.00333	.06996	.00021	.00003
#3	.00007	.00912	-.00455	.06584	-.00077	-.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01473	k -.00013	k .00619	k .00028	kF -.01296	k -.00314
Stddev	.02009	.00016	.00006	.00050	.00042	.00194
%RSD	136.42	129.14	1.0408	181.49	3.2715	61.810
#1	-.00892	k -.00032	k .00620	k .00077	k -.01290	k -.00374
#2	-.03709	-.00005	.00612	.00030	-.01257	-.00472
#3	.00182	-.00002	.00625	-.00024	-.01341	-.00097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit					180.00	
Low Limit					-.00500	

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15669	-.01265	k .06465	k .00048	F 9.7503	.02373
Stddev	.06288	.00105	.02410	.00062	.0523	.01359
%RSD	40.131	8.2845	37.276	128.85	.53678	57.272
#1	.19204	-.01249	k .08038	k -.00006	9.8095	.02579
#2	.19394	-.01376	.03691	.00035	9.7100	.00923
#3	.08409	-.01169	.07668	.00116	9.7315	.03617
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit					9.0000	
Low Limit					-.01000	

Approved: February 08, 2012
Erin D. Long

Sample Name: LRC Acquired: 2/7/2012 12:53:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: MO 10 PPM

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .06101	kF -645.66	k .00588	F 14.533	1.6534	4.7880
Stddev	.10601	18.82	.00119	4.161	2.9921	153.33
%RSD	173.75	2.9152	20.300	28.633	180.97	3202.5
#1	k .18342	k -667.21	k .00579	13.337	5.1029	-172.06
#2	.00004	-632.47	.00712	19.161	.09635	85.885
#3	-.00042	-637.29	.00474	11.101	-.23919	100.54
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit		900.00		9.0000		
Low Limit		-.00400		-.00400		

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.00794	k .00279	.11548	k .00007	.00022	k -.00078
Stddev	.00104	.00217	.04901	.00056	.00007	.00253
%RSD	13.087	77.979	42.438	855.93	33.608	322.46
#1	k -.00674	k .00422	.17206	k -.00058	.00029	k -.00370
#2	-.00851	.00385	.08788	.00043	.00023	.00073
#3	-.00857	.00029	.08649	.00035	.00014	.00062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	k -.00099	kF -.02373	^ *****	k 8.3077
Stddev	.00064	.00431	-----	.3280
%RSD	64.655	18.175	-----	3.9483
#1	k -.00038	k -.02871	^ -----	k 8.6457
#2	-.00092	-.02125	-.00065	8.2869
#3	-.00165	-.02122	-.00099	7.9906
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit		90.000		
Low Limit		-.01000		

Approved: February 08, 2012

Erin D. Long

Sample Name: LRC Acquired: 2/7/2012 12:53:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: MO 10 PPM

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21572.**	**18182.**
Stddev	1067.	288.
%RSD	4.9481	1.5853
#1	20343.	17943.
#2	22106.	18100.
#3	22267.	18502.

Approved: February 08, 2012

Erin D. Long

Sample Name: BLANK Acquired: 2/7/2012 13:00:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	-.01132	-.00003	.02398	-.00055	-.00002	-.00486
Stddev	.00074	.01720	.00134	.00060	.00025	.00001	.00939
%RSD	120.97	151.99	4255.1	2.4872	45.016	77.698	193.11
#1	-.00146	-.02786	-.00125	.02462	-.00064	.00000	-.00260
#2	-.00009	-.01257	.00139	.02389	-.00073	-.00003	-.01518
#3	-.00029	.00648	-.00024	.02344	-.00027	-.00003	.00319
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00023	.00049	.00095	.00006	.01755	-.00217
Stddev	.00004	.00014	.00059	.00058	.00522	.04512	.00148
%RSD	501.72	60.460	121.31	60.314	8936.0	257.10	68.141
#1	.00001	.00025	-.00017	.00050	-.00548	-.03035	-.00245
#2	.00005	.00036	.00066	.00076	.00488	.05925	-.00349
#3	-.00003	.00008	.00098	.00160	.00077	.02375	-.00057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00613	-.00002	.00039	.00519	-.00056	F -1.5460	-.00077
Stddev	.00740	.00051	.00025	.01062	.00028	3.0913	.00092
%RSD	120.83	2106.3	64.042	204.74	49.159	199.96	119.33
#1	.01280	-.00011	.00038	-.00522	-.00037	-4.4320	.00017
#2	-.00184	.00052	.00014	.01601	-.00044	1.7162	-.00082
#3	.00742	-.00049	.00064	.00478	-.00088	-1.9223	-.00167
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: BLANK Acquired: 2/7/2012 13:00:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.844	F -.34308	F 15.309	.00003	-.00148	.00703	-.00004
Stddev	2.711	.03998	3.685	.00100	.00375	.00137	.00015
%RSD	16.097	11.653	24.071	2940.9	254.32	19.462	396.11
#1	14.911	-.29769	12.403	.00092	.00179	.00547	.00011
#2	19.943	-.35850	14.071	-.00106	-.00064	.00763	-.00019
#3	15.677	-.37305	19.454	.00024	-.00558	.00800	-.00003
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.00107	-.00172	-.00005	-.00131	F -.02659
Stddev	.00014	.00041	.00046	.00011	.00007	.23517
%RSD	305.02	37.787	26.892	235.73	5.1622	884.50
#1	.00017	-.00061	-.00137	-.00011	-.00127	.23681
#2	.00008	-.00128	-.00224	-.00011	-.00127	-.21547
#3	-.00011	-.00134	-.00155	.00008	-.00139	-.10111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21097.	18649.
Stddev	261.	190.
%RSD	1.2349	1.0167
#1	21393.	18833.
#2	20997.	18659.
#3	20902.	18454.

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 13:06:59 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40259	10.100	.39259	.50999	.99623	.04922	10.024
Stddev	.01034	.071	.00408	.01288	.00362	.00117	.046
%RSD	2.5694	.70320	1.0381	2.5257	.36316	2.3804	.45949
#1	.39072	10.019	.39486	.49577	.99297	.04789	9.9802
#2	.40963	10.132	.39503	.52088	1.0001	.05008	10.019
#3	.40742	10.149	.38789	.51333	.99561	.04969	10.072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04917	.19863	.50337	.49576	3.9845	50.559	.98217
Stddev	.00038	.00104	.01250	.00233	.0198	.056	.00251
%RSD	.76379	.52147	2.4826	.47054	.49576	.11086	.25549
#1	.04960	.19908	.48905	.49810	3.9649	50.505	.97956
#2	.04901	.19937	.51205	.49573	4.0044	50.617	.98456
#3	.04890	.19745	.50901	.49343	3.9843	50.556	.98239
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9798	.49399	.99545	50.387	.49991	F 3.0416	.50168
Stddev	.0459	.00302	.01078	.090	.00363	19.864	.00327
%RSD	.46009	.61203	1.0825	.17869	.72651	653.09	.65145
#1	9.9541	.49394	1.0045	50.286	.50268	-19.024	.50305
#2	10.033	.49704	.99837	50.416	.50124	19.499	.50404
#3	9.9524	.49100	.98351	50.459	.49580	8.6491	.49795
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 13:06:59 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.496	9.9984	F 21.667	1.1811	.39038	4.9105	.99939
Stddev	4.065	.0827	3.160	.0150	.00705	.0524	.00785
%RSD	26.233	.82718	14.582	1.2667	1.8061	1.0682	.78557
#1	11.547	10.089	20.807	1.1954	.39709	4.9522	1.0052
#2	19.668	9.9781	25.168	1.1824	.39103	4.9276	1.0025
#3	15.274	9.9277	19.027	1.1656	.38303	4.8516	.99046
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99705	.98357	.50451	.99292	.99659	F .84146
Stddev	.00299	.00444	.00365	.02627	.00613	.18124
%RSD	.29984	.45157	.72329	2.6455	.61544	21.539
#1	.99363	.97996	.50871	.96267	1.0004	.87972
#2	.99916	.98853	.50213	1.0100	.99988	.64414
#3	.99837	.98222	.50269	1.0061	.98951	1.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21035.	18236.
Stddev	567.	32.
%RSD	2.6932	.17719
#1	21685.	18201.
#2	20774.	18241.
#3	20646.	18265.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 13:10:11 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	-.00679	.00021	.01087	.00030	-.00002	-.00750
Stddev	.00082	.03051	.00131	.00037	.00035	.00001	.01186
%RSD	277.06	449.34	608.85	3.3990	117.22	38.099	158.24
#1	-.00108	-.03904	-.00120	.01057	.00043	-.00002	-.00750
#2	-.00036	.02161	.00138	.01077	.00057	-.00001	-.01936
#3	.00055	-.00294	.00046	.01128	-.00010	-.00003	.00437
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.00007	.00087	.00062	.00032	.08847	-.00082
Stddev	.00018	.00012	.00020	.00034	.00626	.04652	.00127
%RSD	231.10	171.64	22.433	54.473	1964.4	52.579	156.21
#1	-.00023	-.00017	.00099	.00076	.00695	.11315	.00065
#2	.00013	-.00011	.00098	.00023	-.00549	.03482	-.00145
#3	-.00013	.00007	.00065	.00087	-.00050	.11746	-.00165
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01446	.00013	.00069	-.00463	-.00035	F -8.7628	-.00103
Stddev	.02608	.00067	.00030	.00831	.00061	13.638	.00121
%RSD	180.31	514.98	44.175	179.48	172.58	155.63	117.46
#1	-.00430	-.00051	.00034	.00389	.00012	-23.559	-.00148
#2	.00345	.00007	.00081	-.01270	-.00104	-6.0321	.00034
#3	.04425	.00083	.00091	-.00507	-.00014	3.3027	-.00194
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 13:10:11 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 5.0152	F -.31722	F 16.213	.00093	-.00010	.00677	.00058
Stddev	3.1465	.03648	.512	.00147	.00098	.00117	.00012
%RSD	62.739	11.500	3.1559	157.79	982.94	17.344	21.389
#1	7.5492	-.27614	15.641	.00007	-.00108	.00546	.00071
#2	6.0032	-.32969	16.628	.00010	.00088	.00773	.00057
#3	1.4933	-.34582	16.369	.00263	-.00010	.00712	.00046
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	-.00185	.00042	.00007	.00000	-.06076
Stddev	.00012	.00198	.00116	.00039	.0000	.14548
%RSD	46.716	107.01	277.43	525.87	1333.8	239.44
#1	.00039	-.00209	.00074	-.00001	-.00002	.07964
#2	.00016	-.00371	-.00087	-.00026	.00000	-.21084
#3	.00021	.00024	.00139	.00050	.00002	-.05108
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20776.	17271.
Stddev	150.	165.
%RSD	.72248	.95258
#1	20933.	17207.
#2	20759.	17148.
#3	20634.	17458.

Approved: February 08, 2012

Sample Name: PBW AG Acquired: 2/7/2012 13:13:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388591-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.01400	.00072	.00801	-.00018	-.00001	-.00483
Stddev	.00049	.02307	.00091	.00031	.00030	.00002	.01069
%RSD	160.72	164.80	126.18	3.9270	167.39	149.02	221.54
#1	-.00016	.02927	-.00033	.00837	-.00025	-.00001	-.00888
#2	.00010	.02526	.00123	.00781	-.00044	.00000	.00730
#3	-.00085	-.01254	.00127	.00785	.00015	-.00004	-.01290
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00006	.00120	.00033	.02295	.02825	-.00288
Stddev	.00010	.00006	.00015	.00036	.00516	.07903	.00337
%RSD	665.46	98.596	12.339	106.76	22.504	279.71	117.12
#1	.00010	.00012	.00138	.00029	.02792	.06059	.00042
#2	-.00005	.00003	.00111	.00000	.01761	-.06181	-.00274
#3	-.00009	.00002	.00113	.00071	.02331	.08599	-.00632
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01233	.00218	.00004	-.01176	.00024	F -4.0126	-.00018
Stddev	.00056	.00038	.00007	.01410	.00034	28.207	.00106
%RSD	4.5118	17.431	184.83	119.82	144.35	702.96	581.42
#1	.01189	.00242	.00006	-.02290	-.00016	-26.790	.00040
#2	.01295	.00174	-.00004	.00408	.00040	27.539	-.00141
#3	.01215	.00238	.00008	-.01647	.00047	-12.787	.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: PBW AG Acquired: 2/7/2012 13:13:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388591-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.0527	F -.25718	F 13.421	.00145	.00172	.01180	.00016
Stddev	12.052	.05084	1.915	.00132	.00107	.00177	.00013
%RSD	149.67	19.769	14.272	90.686	62.090	14.990	83.629
#1	-2.0947	-.31010	15.207	.00267	.00295	.01313	.00014
#2	4.8786	-.25273	13.657	.00164	.00106	.00979	.00029
#3	21.374	-.20871	11.398	.00005	.00115	.01247	.00003
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00055	-.00040	-.00017	-.00112	F -.18955
Stddev	.00008	.00007	.00154	.00025	.00012	.13306
%RSD	49.429	12.193	383.30	144.85	11.111	70.196
#1	.00022	.00057	-.00212	-.00044	-.00126	-.19259
#2	.00019	.00048	.00085	-.00011	-.00104	-.05500
#3	.00007	.00061	.00006	.00004	-.00106	-.32107
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21668.	17415.
Stddev	531.	55.
%RSD	2.4507	.31458
#1	21471.	17415.
#2	22270.	17361.
#3	21264.	17470.

Approved: February 08, 2012

Sample Name: LCSW AG Acquired: 2/7/2012 13:17:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388591-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19729	4.8954	.19207	.97309	.48122	.02402	4.7968
Stddev	.00233	.0244	.00066	.00535	.00142	.00016	.0052
%RSD	1.1813	.49923	.34184	.55012	.29409	.64650	.10920
#1	.19994	4.8679	.19137	.97825	.48285	.02416	4.7976
#2	.19639	4.9037	.19267	.97344	.48054	.02405	4.7912
#3	.19555	4.9146	.19219	.96756	.48028	.02385	4.8016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02435	.09911	.24543	.24774	1.9173	24.374	.48751
Stddev	.00009	.00041	.00144	.00167	.0094	.088	.00213
%RSD	.36934	.41484	.58806	.67225	.49162	.36276	.43774
#1	.02440	.09940	.24675	.24801	1.9231	24.456	.48941
#2	.02424	.09929	.24565	.24925	1.9064	24.280	.48520
#3	.02440	.09864	.24389	.24595	1.9223	24.385	.48793
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9435	.24315	.49094	25.120	.25003	F -19.321	.24909
Stddev	.0198	.00121	.00145	.022	.00089	27.498	.00096
%RSD	.39962	.49886	.29527	.08565	.35759	142.32	.38626
#1	4.9502	.24453	.49160	25.143	.24966	-23.178	.24988
#2	4.9213	.24225	.49195	25.100	.25105	9.9023	.24802
#3	4.9590	.24267	.48928	25.118	.24938	-44.687	.24938
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: LCSW AG Acquired: 2/7/2012 13:17:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388591-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.048	4.9968	F 9.9789	.58143	.18970	2.5156	.52351
Stddev	3.984	.0876	1.8204	.00496	.00184	.0124	.00211
%RSD	39.650	1.7529	18.243	.85287	.96935	.49292	.40220
#1	12.365	5.0144	11.767	.58339	.18758	2.5200	.52401
#2	12.332	5.0742	8.1274	.58511	.19086	2.5253	.52532
#3	5.4477	4.9017	10.043	.57579	.19065	2.5017	.52119
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48133	.47693	.25251	.48386	.49919	.16775
Stddev	.00121	.00090	.00147	.00319	.00178	.11871
%RSD	.25058	.18969	.58301	.65902	.35602	70.767
#1	.48269	.47796	.25324	.48728	.50034	.13163
#2	.48039	.47628	.25347	.48334	.50009	.30033
#3	.48092	.47655	.25081	.48096	.49715	.07129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21010.	17481.
Stddev	202.	331.
%RSD	.95910	1.8933
#1	20821.	17301.
#2	20986.	17863.
#3	21222.	17280.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082102 Acquired: 2/7/2012 13:20:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388591-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	.13718	-.00051	.00973	.00935	.00000	1.9055
Stddev	.00041	.02592	.00051	.00042	.00023	.00003	.0083
%RSD	74.325	18.894	100.82	4.3071	2.4653	1373.0	.43518
#1	-.00070	.16227	-.00093	.00928	.00961	-.00003	1.8971
#2	-.00009	.13875	.00006	.00983	.00917	.00002	1.9059
#3	-.00085	.11051	-.00066	.01010	.00928	.00002	1.9136
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00009	.00125	.00094	.25343	.37844	.00088
Stddev	.00007	.00029	.00063	.00067	.00527	.05473	.00250
%RSD	218.10	323.37	50.307	70.754	2.0800	14.462	284.13
#1	-.00002	.00038	.00095	.00135	.24738	.36123	.00348
#2	-.00010	-.00019	.00082	.00130	.25705	.33439	-.00151
#3	.00003	.00007	.00196	.00017	.25587	.43971	.00068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.84949	.00613	.00018	1.7007	.00044	F -59.745	-.00081
Stddev	.01370	.00058	.00037	.0077	.00069	10.717	.00095
%RSD	1.6129	9.4513	199.13	.45121	158.03	17.938	116.49
#1	.83367	.00607	-.00011	1.7028	.00118	-53.917	-.00116
#2	.85757	.00558	.00006	1.6922	.00032	-53.204	.00026
#3	.85723	.00674	.00059	1.7071	-.00019	-72.112	-.00154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082102 Acquired: 2/7/2012 13:20:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388591-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.204	F 12.487	F -528.60	.00190	-.00070	4.4564	-.00018
Stddev	2.575	.019	3.08	.00040	.00373	.0029	.00029
%RSD	15.891	.14900	.58247	21.296	534.74	.06504	164.76
#1	16.873	12.479	-525.20	.00184	.00198	4.4596	-.00047
#2	13.361	12.474	-529.40	.00152	-.00496	4.4539	-.00018
#3	18.379	12.509	-531.20	.00233	.00089	4.4558	.00012
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01339	.00264	-.00018	.00027	.00158	F -.02524
Stddev	.00010	.00120	.00134	.00053	.00006	.14712
%RSD	.71984	45.376	728.34	197.59	3.7856	582.88
#1	.01346	.00377	.00014	.00019	.00156	.14399
#2	.01344	.00139	-.00166	-.00022	.00165	-.12269
#3	.01328	.00275	.00097	.00084	.00154	-.09702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21540.	18243.
Stddev	106.	133.
%RSD	.49222	.72723
#1	21654.	18206.
#2	21444.	18133.
#3	21522.	18391.

Approved: February 08, 2012

Sample Name: L1201082105S Acquired: 2/7/2012 13:23:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388591-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19913	5.3539	.19184	.97567	.49043	.02420	6.6636
Stddev	.00560	.0268	.00023	.02607	.00306	.00044	.0330
%RSD	2.8116	.50151	.12085	2.6724	.62454	1.8346	.49557
#1	.20553	5.3790	.19184	1.0047	.48818	.02471	6.6326
#2	.19514	5.3256	.19160	.95430	.48919	.02392	6.6599
#3	.19673	5.3571	.19207	.96799	.49392	.02397	6.6984
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02434	.09921	.24678	.24646	2.3464	24.669	.48554
Stddev	.00020	.00014	.00568	.00044	.0043	.058	.00418
%RSD	.83164	.14508	2.3025	.17817	.18299	.23569	.86142
#1	.02411	.09905	.25328	.24622	2.3461	24.701	.48385
#2	.02448	.09926	.24430	.24697	2.3423	24.602	.48247
#3	.02444	.09933	.24276	.24620	2.3509	24.703	.49031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.7185	.25872	.48716	26.686	.24860	F -74.031	.24675
Stddev	.0164	.00073	.00044	.090	.00089	28.702	.00111
%RSD	.28605	.28331	.08966	.33744	.35860	38.770	.44998
#1	5.7020	.25944	.48713	26.678	.24762	-102.13	.24552
#2	5.7187	.25797	.48761	26.601	.24937	-44.759	.24769
#3	5.7347	.25875	.48674	26.780	.24881	-75.210	.24703
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082105S Acquired: 2/7/2012 13:23:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388591-04

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9.4106	F 17.709	F -535.64	.58046	.19166	7.2509	.51473
Stddev	9.4136	.069	2.48	.00202	.00290	.0176	.00035
%RSD	100.03	.38745	.46374	.34728	1.5124	.24265	.06808
#1	17.157	17.633	-536.06	.57978	.19247	7.2367	.51514
#2	-1.0664	17.765	-532.97	.57888	.19407	7.2455	.51452
#3	12.141	17.729	-537.88	.58273	.18844	7.2706	.51454
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49255	.47813	.25204	.48881	.49309	.39239
Stddev	.00138	.00270	.00103	.01137	.00054	.16100
%RSD	.28095	.56469	.41018	2.3267	.11040	41.029
#1	.49228	.47726	.25088	.50169	.49250	.47354
#2	.49132	.47597	.25288	.48014	.49320	.20697
#3	.49405	.48116	.25235	.48460	.49358	.49667
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21328.	17765.
Stddev	59.	45.
%RSD	.27686	.25608
#1	21353.	17817.
#2	21260.	17743.
#3	21370.	17734.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082108SD Acquired: 2/7/2012 13:27:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388591-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20398	5.4424	.19543	1.0042	.50129	.02496	6.8008
Stddev	.00073	.0101	.00077	.0030	.00308	.00002	.0491
%RSD	.35735	.18642	.39580	.29917	.61540	.06198	.72174
#1	.20357	5.4341	.19625	1.0007	.50063	.02494	6.7663
#2	.20356	5.4394	.19471	1.0062	.49858	.02496	6.7792
#3	.20483	5.4537	.19532	1.0056	.50465	.02497	6.8570
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02476	.10218	.25476	.25433	2.3817	25.163	.50068
Stddev	.00014	.00053	.00140	.00046	.0135	.243	.00172
%RSD	.56484	.51671	.54802	.18085	.56802	.96713	.34273
#1	.02491	.10270	.25335	.25432	2.3856	25.128	.50001
#2	.02475	.10218	.25614	.25479	2.3667	24.939	.49940
#3	.02463	.10165	.25480	.25387	2.3928	25.422	.50263
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.8827	.26549	.50048	27.421	.25617	F -94.078	.25408
Stddev	.0221	.00273	.00314	.204	.00146	9.571	.00031
%RSD	.37588	1.0300	.62686	.74293	.56953	10.173	.12087
#1	5.8665	.26593	.50264	27.371	.25636	-91.316	.25406
#2	5.8737	.26256	.50191	27.247	.25753	-86.193	.25440
#3	5.9079	.26797	.49688	27.645	.25463	-104.73	.25379
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082108SD Acquired: 2/7/2012 13:27:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388591-05

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 13.821	F 18.387	F -553.41	.59334	.19445	7.4729	.53117
Stddev	8.853	.053	4.15	.00250	.00116	.0129	.00144
%RSD	64.054	.28885	.74925	.42217	.59498	.17314	.27052
#1	6.2750	18.395	-558.12	.59134	.19569	7.4705	.53103
#2	11.622	18.436	-551.78	.59615	.19340	7.4868	.53267
#3	23.566	18.331	-550.33	.59252	.19425	7.4613	.52981
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50664	.49162	.26029	.50455	.50783	.49313
Stddev	.00366	.00476	.00091	.00102	.00010	.11131
%RSD	.72174	.96752	.34843	.20142	.02066	22.572
#1	.50574	.49444	.25968	.50363	.50782	.61228
#2	.50352	.48613	.26133	.50439	.50794	.39181
#3	.51067	.49430	.25985	.50564	.50773	.47531
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20660.	18027.
Stddev	53.	318.
%RSD	.25509	1.7657
#1	20719.	18360.
#2	20619.	17993.
#3	20640.	17726.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082111 Acquired: 2/7/2012 13:30:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.08507	-.00055	.00993	.00922	-.00001	1.7128
Stddev	.00056	.01541	.00138	.00050	.00032	.00000	.0177
%RSD	196.72	18.110	252.87	5.0060	3.4493	26.740	1.0356
#1	-.00092	.08642	.00070	.01051	.00952	-.00001	1.6926
#2	-.00004	.06904	-.00203	.00964	.00889	-.00001	1.7194
#3	.00011	.09976	-.00031	.00965	.00925	-.00001	1.7262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00015	.00188	.00106	.28511	.40187	-.00027
Stddev	.00002	.00025	.00057	.00011	.00607	.05286	.00164
%RSD	98.570	172.49	30.566	10.775	2.1273	13.154	612.44
#1	.00003	.00002	.00180	.00119	.28014	.39182	.00163
#2	.00003	.00044	.00135	.00097	.28331	.45903	-.00128
#3	.00000	-.00002	.00249	.00102	.29187	.35475	-.00116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.87768	.01123	.00046	1.7984	.00052	F -67.459	.00025
Stddev	.01053	.00055	.00019	.0094	.00063	12.207	.00100
%RSD	1.1996	4.8795	41.621	.52063	122.38	18.095	405.42
#1	.88222	.01089	.00030	1.8087	.00083	-78.679	.00091
#2	.86564	.01186	.00067	1.7905	.00093	-69.238	-.00090
#3	.88517	.01094	.00041	1.7958	-.00021	-54.461	.00073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Sample Name: L1201082111 Acquired: 2/7/2012 13:30:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 17.374	F 11.694	F -490.35	.00162	-.00146	4.6336	.00018
Stddev	6.501	.182	4.43	.00153	.00272	.0239	.00032
%RSD	37.415	1.5558	.90391	94.414	186.62	.51617	173.63
#1	18.489	11.903	-495.35	-.00009	.00036	4.6517	.00040
#2	10.388	11.603	-488.78	.00287	-.00458	4.6065	-.00018
#3	23.246	11.575	-486.91	.00209	-.00014	4.6425	.00033
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01295	.00247	.00080	.00016	.00177	.03417
Stddev	.00012	.00058	.00045	.00035	.00011	.06298
%RSD	.88878	23.475	56.601	216.91	6.2934	184.30
#1	.01302	.00221	.00128	.00036	.00189	.09309
#2	.01301	.00314	.00039	-.00024	.00175	-.03221
#3	.01282	.00207	.00072	.00036	.00167	.04164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21466.	18050.
Stddev	90.	405.
%RSD	.41780	2.2463
#1	21394.	17738.
#2	21437.	18508.
#3	21566.	17904.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082114 Acquired: 2/7/2012 13:33:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	.12345	.00087	.00608	.00905	.00000	1.6913
Stddev	.00062	.01253	.00130	.00095	.00021	.0000	.0222
%RSD	72.426	10.152	150.44	15.689	2.2879	898.77	1.3110
#1	-.00016	.10911	.00199	.00537	.00923	.00002	1.6665
#2	-.00105	.13232	.00117	.00572	.00911	-.00004	1.7093
#3	-.00135	.12892	-.00056	.00717	.00882	.00002	1.6981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00008	.00165	.00076	.29510	.43279	-.00366
Stddev	.00015	.00014	.00027	.00023	.00538	.01025	.00507
%RSD	576.56	178.99	16.563	30.158	1.8241	2.3679	138.45
#1	.00014	.00022	.00173	.00052	.29141	.43288	-.00948
#2	-.00015	-.00004	.00188	.00098	.30128	.42250	-.00130
#3	.00009	.00004	.00135	.00077	.29262	.44300	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.88444	.01168	.00009	1.7739	.00055	F -43.676	-.00039
Stddev	.01182	.00023	.00042	.0270	.00035	9.436	.00027
%RSD	1.3360	1.9850	490.48	1.5202	62.638	21.604	69.743
#1	.88864	.01158	-.00004	1.7804	.00092	-53.372	-.00044
#2	.87109	.01195	.00055	1.7970	.00049	-34.524	-.00063
#3	.89357	.01152	-.00025	1.7442	.00024	-43.133	-.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082114 Acquired: 2/7/2012 13:33:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11.688	F 12.811	F -552.26	.00197	-.00257	4.5756	.00009
Stddev	6.975	.064	1.52	.00054	.00155	.0127	.00035
%RSD	59.677	.50271	.27441	27.318	60.510	.27677	401.73
#1	3.9352	12.756	-551.61	.00186	-.00413	4.5742	.00029
#2	17.454	12.882	-551.17	.00256	-.00102	4.5889	-.00032
#3	13.675	12.795	-553.99	.00150	-.00255	4.5637	.00029
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01283	.00246	-.00127	.00041	.00125	F -.05305
Stddev	.00012	.00134	.00069	.00017	.00012	.09988
%RSD	.96550	54.554	54.085	40.095	9.5600	188.27
#1	.01270	.00107	-.00107	.00036	.00135	-.09196
#2	.01295	.00374	-.00070	.00060	.00112	.06043
#3	.01283	.00257	-.00203	.00028	.00129	-.12763
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21342.	18374.
Stddev	256.	51.
%RSD	1.1989	.27610
#1	21637.	18316.
#2	21189.	18397.
#3	21200.	18409.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082117 Acquired: 2/7/2012 13:37:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	.06578	-.00046	.00595	.00981	.00000	2.0904
Stddev	.00024	.05886	.00114	.00018	.00040	.00001	.0083
%RSD	32.976	89.490	246.46	3.1063	4.1057	175.68	.39538
#1	-.00090	.06711	.00018	.00616	.01018	.00001	2.0899
#2	-.00085	.00626	.00021	.00591	.00986	.00000	2.0989
#3	-.00046	.12396	-.00178	.00580	.00938	.00000	2.0824
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00023	.00372	.00154	.19981	.36782	-.00153
Stddev	.00010	.00022	.00019	.00019	.00336	.07320	.00115
%RSD	668.84	95.667	5.1480	12.300	1.6829	19.901	75.093
#1	-.00009	-.00002	.00352	.00175	.19862	.42989	-.00071
#2	.00011	.00035	.00374	.00138	.20361	.38647	-.00104
#3	.00003	.00036	.00390	.00148	.19721	.28710	-.00285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0813	.01259	.00034	2.2505	.00050	F -5.4242	-.00041
Stddev	.0149	.00032	.00035	.0221	.00038	7.9822	.00208
%RSD	1.3786	2.5657	101.86	.98247	76.322	147.16	506.19
#1	1.0980	.01259	.00019	2.2540	.00094	-7.9149	-.00209
#2	1.0765	.01292	.00074	2.2269	.00028	3.5063	.00191
#3	1.0694	.01227	.00009	2.2707	.00028	-11.864	-.00106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082117 Acquired: 2/7/2012 13:37:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.4821**	F **17.633**	F **-766.64**	**.00113**	**-.00333**	**5.3782**	**.00046**
Stddev	2.0062	.035	2.37	.00209	.00172	.0039	.00019
%RSD	26.814	.19976	.30904	184.92	51.625	.07251	40.594
#1	5.2272	17.673	-767.09	.00334	-.00166	5.3748	.00061
#2	8.1496	17.606	-764.08	.00087	-.00510	5.3824	.00025
#3	9.0695	17.619	-768.75	-.00082	-.00324	5.3773	.00051
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01621**	**-.00014**	**-.00119**	**.00026**	**.00154**	F **-.05185**
Stddev	.00013	.00078	.00104	.00026	.00006	.14524
%RSD	.77614	559.43	87.414	97.633	3.8159	280.09
#1	.01627	.00013	-.00079	.00011	.00152	-.09733
#2	.01606	-.00102	-.00042	.00056	.00150	.11068
#3	.01629	.00047	-.00238	.00011	.00161	-.16891
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20975.**	**17781.**
Stddev	200.	235.
%RSD	.95305	1.3219
#1	21168.	17803.
#2	20987.	17535.
#3	20769.	18004.

Approved: February 08, 2012

Sample Name: L1201082117PS Acquired: 2/7/2012 13:40:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388719-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20401	5.1048	.19923	.99930	.50756	.02502	6.7828
Stddev	.00101	.0246	.00036	.00349	.00227	.00014	.0215
%RSD	.49441	.48266	.18010	.34908	.44736	.57335	.31666
#1	.20400	5.0945	.19964	.99711	.50537	.02510	6.7750
#2	.20502	5.1330	.19896	1.0033	.50990	.02511	6.8071
#3	.20300	5.0871	.19908	.99747	.50740	.02486	6.7664
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02566	.10384	.25688	.25990	2.1509	25.660	.50576
Stddev	.00003	.00053	.00147	.00151	.0175	.167	.00086
%RSD	.12382	.51010	.57058	.58227	.81268	.64989	.16986
#1	.02562	.10338	.25722	.25861	2.1390	25.565	.50483
#2	.02569	.10442	.25814	.26157	2.1710	25.852	.50652
#3	.02567	.10372	.25527	.25954	2.1427	25.563	.50593
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.1098	.26384	.50350	28.122	.25964	F -72.841	.25870
Stddev	.0550	.00118	.00123	.135	.00040	34.329	.00116
%RSD	.89960	.44738	.24389	.48152	.15589	47.128	.44868
#1	6.0655	.26297	.50471	28.019	.25994	-34.819	.25872
#2	6.1713	.26518	.50354	28.275	.25979	-82.149	.25753
#3	6.0927	.26338	.50225	28.073	.25918	-101.56	.25985
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082117PS Acquired: 2/7/2012 13:40:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388719-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.4260	F 21.184	F -687.64	.59540	.19776	7.4541	.00126
Stddev	2.1239	.105	.90	.00083	.00211	.0153	.00016
%RSD	25.206	.49411	.13125	.13929	1.0684	.20560	13.016
#1	9.6103	21.123	-688.38	.59626	.19871	7.4365	.00143
#2	5.9740	21.305	-687.91	.59534	.19923	7.4615	.00126
#3	9.6938	21.124	-686.63	.59461	.19534	7.4644	.00110
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51356	.49791	.26551	.50626	.51724	.28699
Stddev	.00260	.00307	.00119	.00225	.00049	.12216
%RSD	.50724	.61581	.44733	.44405	.09515	42.567
#1	.51125	.49453	.26521	.50755	.51675	.42214
#2	.51638	.50051	.26682	.50757	.51723	.25444
#3	.51305	.49869	.26450	.50366	.51774	.18440
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	19922.	16822.
Stddev	30.	250.
%RSD	.14838	1.4856
#1	19950.	16676.
#2	19891.	16680.
#3	19926.	17111.

Approved: February 08, 2012

Sample Name: L1201082117SDL Acquired: 2/7/2012 13:44:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388719-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.01425	-.00008	.00574	.00263	.00001	.37600
Stddev	.00050	.02477	.00053	.00112	.00034	.00002	.01460
%RSD	2925.4	173.85	691.92	19.510	12.946	175.98	3.8835
#1	-.00033	-.00470	-.00068	.00701	.00269	.00003	.38567
#2	.00056	.04228	.00014	.00490	.00294	.00002	.38314
#3	-.00028	.00516	.00031	.00530	.00227	-.00001	.35921
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00001	.00037	.00095	.04196	.13219	-.00191
Stddev	.00011	.00022	.00009	.00034	.00994	.03757	.00101
%RSD	349.83	1484.5	23.817	35.561	23.699	28.423	52.930
#1	-.00011	-.00009	.00031	.00056	.04882	.12442	-.00297
#2	.00009	-.00013	.00047	.00109	.04652	.17304	-.00096
#3	-.00008	.00027	.00033	.00118	.03056	.09911	-.00180
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24144	.00174	.00036	.44001	.00001	F -3.0008	.00097
Stddev	.00347	.00090	.00025	.00225	.00069	15.378	.00045
%RSD	1.4362	51.542	69.934	.51197	13269.	512.46	46.730
#1	.23745	.00194	.00010	.43772	-.00077	12.964	.00143
#2	.24316	.00076	.00060	.44010	.00057	-17.716	.00053
#3	.24371	.00253	.00038	.44223	.00022	-4.2506	.00096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082117SDL Acquired: 2/7/2012 13:44:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388719-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.1344**	**3.2213**	F **-137.19**	**.00065**	**-.00021**	**1.0858**	**-.00011**
Stddev	9.2336	.0772	4.56	.00177	.00260	.0142	.00027
%RSD	223.34	2.3977	3.3253	271.05	1234.7	1.3051	240.24
#1	14.587	3.1395	-132.69	.00195	.00193	1.0703	-.00004
#2	.72828	3.2930	-141.82	.00138	-.00311	1.0981	-.00042
#3	-2.9123	3.2313	-137.06	-.00137	.00054	1.0890	.00012
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00339**	**-.00147**	**-.00054**	**-.00010**	**-.00077**	F **-.03778**
Stddev	.00018	.00101	.00135	.00037	.00015	.08432
%RSD	5.4268	68.961	250.20	366.73	18.866	223.20
#1	.00345	-.00261	-.00153	-.00028	-.00090	.04707
#2	.00353	-.00070	.00100	.00033	-.00080	-.12156
#3	.00318	-.00109	-.00108	-.00035	-.00061	-.03885
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21483.**	**16565.**
Stddev	163.	159.
%RSD	.76000	.95704
#1	21340.	16748.
#2	21661.	16464.
#3	21446.	16484.

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 13:47:31 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40135	10.046	.40466	.50620	.99454	.04982	10.006
Stddev	.00377	.072	.00374	.00410	.00183	.00025	.032
%RSD	.93820	.71615	.92386	.80934	.18387	.50660	.31959
#1	.40116	10.008	.40183	.50588	.99495	.04994	9.9865
#2	.39767	10.129	.40325	.50227	.99613	.04953	10.043
#3	.40520	10.001	.40890	.51045	.99254	.04999	9.9879
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05093	.20516	.49940	.51400	3.9748	50.424	1.0037
Stddev	.00051	.00130	.00375	.00343	.0088	.203	.0010
%RSD	.99472	.63480	.75058	.66741	.22066	.40194	.09955
#1	.05082	.20492	.49943	.51363	3.9651	50.207	1.0033
#2	.05049	.20400	.49564	.51077	3.9823	50.609	1.0049
#3	.05149	.20657	.50314	.51760	3.9769	50.457	1.0030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.062	.50390	.99815	50.988	.51122	F -28.544	.50995
Stddev	.013	.00236	.00601	.296	.00350	29.187	.00333
%RSD	.12736	.46922	.60238	.58043	.68382	102.25	.65331
#1	10.054	.50117	1.0025	50.711	.51195	-47.527	.50980
#2	10.055	.50522	.99129	51.300	.50741	-43.168	.50669
#3	10.077	.50531	1.0007	50.952	.51429	5.0639	.51335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 13:47:31 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.354	10.303	F 19.978	1.2233	.40644	5.0510	1.0181
Stddev	1.891	.114	2.271	.0130	.00252	.0337	.0099
%RSD	12.316	1.1037	11.368	1.0623	.61976	.66691	.97650
#1	15.004	10.337	18.492	1.2242	.40681	5.0497	1.0133
#2	17.396	10.176	18.850	1.2099	.40375	5.0180	1.0116
#3	13.663	10.396	22.593	1.2358	.40875	5.0853	1.0296
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0076	.99905	.51732	1.0055	1.0167	F .71387
Stddev	.0041	.00427	.00753	.0082	.0058	.10924
%RSD	.40540	.42738	1.4565	.81182	.57379	15.302
#1	1.0048	.99456	.51577	1.0081	1.0187	.81127
#2	1.0123	1.0031	.51068	.99631	1.0101	.59576
#3	1.0056	.99955	.52551	1.0120	1.0212	.73460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20935.	18064.
Stddev	123.	328.
%RSD	.58693	1.8168
#1	20900.	18438.
#2	21071.	17935.
#3	20833.	17821.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 13:50:43 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	-.03413	.00091	.00433	.00002	-.00002	-.01648
Stddev	.00067	.03996	.00086	.00087	.00020	.00003	.00639
%RSD	133.66	117.09	95.308	20.112	913.35	116.44	38.756
#1	.00011	-.07594	.00002	.00385	-.00018	-.00003	-.02341
#2	-.00040	.00368	.00174	.00534	.00003	-.00004	-.01082
#3	-.00122	-.03012	.00096	.00381	.00022	.00001	-.01522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00002	.00047	.00057	.00371	-.02709	.00065
Stddev	.00005	.00034	.00048	.00077	.00219	.04539	.00134
%RSD	170.80	1815.6	102.89	134.46	59.061	167.53	206.13
#1	-.00007	.00033	-.00004	.00117	.00204	-.06396	-.00082
#2	-.00004	-.00034	.00054	.00085	.00619	.02360	.00095
#3	.00002	.00006	.00091	-.00030	.00289	-.04091	.00182
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01077	-.00008	.00058	-.01223	-.00054	F -14.462	-.00039
Stddev	.00917	.00041	.00038	.01229	.00008	42.875	.00068
%RSD	85.129	517.78	65.085	100.48	15.069	296.46	174.17
#1	.00318	.00039	.00015	-.02642	-.00048	11.233	.00021
#2	.02097	-.00025	.00082	-.00471	-.00063	9.3381	-.00113
#3	.00818	-.00038	.00078	-.00558	-.00051	-63.958	-.00025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 13:50:43 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.7341	F -.31903	F 16.831	.00109	-.00126	.00424	.00034
Stddev	7.8158	.02329	1.027	.00196	.00084	.00083	.00028
%RSD	450.72	7.3007	6.0997	180.14	66.594	19.649	83.745
#1	4.4959	-.30903	15.818	-.00113	-.00088	.00501	.00003
#2	7.7939	-.34565	17.870	.00258	-.00222	.00436	.00058
#3	-7.0876	-.30240	16.805	.00181	-.00067	.00336	.00040
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.00047	-.00059	.00046	.00001	-.08836
Stddev	.00019	.00104	.00103	.00017	.00012	.04578
%RSD	96.492	222.74	173.87	36.714	978.92	51.811
#1	.00038	.00167	-.00070	.00027	.00014	-.08367
#2	.00001	-.00019	-.00157	.00055	-.00008	-.13630
#3	.00020	-.00008	.00049	.00058	-.00003	-.04510
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21154.	17514.
Stddev	68.	146.
%RSD	.31997	.83332
#1	21185.	17444.
#2	21077.	17682.
#3	21201.	17417.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082120 Acquired: 2/7/2012 13:54:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	-.00302	.00000	.00269	.00032	-.00003	-.01015
Stddev	.00010	.01813	.0007	.00060	.00037	.00003	.00504
%RSD	80.320	600.00	28440.	22.238	115.46	119.13	49.660
#1	-.00007	.01230	-.00076	.00338	.00058	-.00003	-.01337
#2	-.00023	.00167	.00068	.00246	.00048	.00000	-.01275
#3	-.00006	-.02304	.00007	.00225	-.00010	-.00006	-.00434
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.00002	.00186	.00072	.02371	-.08513	.00646
Stddev	.00011	.00008	.00031	.00017	.00428	.03657	.00364
%RSD	293.23	562.32	16.509	23.087	18.037	42.955	56.330
#1	-.00015	.00008	.00221	.00060	.02703	-.08251	.00978
#2	-.00003	.00004	.00162	.00065	.01888	-.04994	.00257
#3	.00007	-.00008	.00176	.00091	.02521	-.12293	.00702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00966	.00003	.00043	-.03932	.00012	F -14.245	.00067
Stddev	.01080	.00017	.00012	.01157	.00048	34.247	.00031
%RSD	111.77	617.63	27.326	29.418	417.91	240.41	45.683
#1	.02096	.00010	.00044	-.05267	-.00038	-34.464	.00032
#2	.00857	.00014	.00030	-.03220	.00057	-33.567	.00088
#3	-.00055	-.00016	.00054	-.03310	.00016	25.296	.00081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082120 Acquired: 2/7/2012 13:54:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -1.9181	7.7252	F -385.47	-.00008	.00077	.01245	.00022
Stddev	6.3761	.0691	6.24	.00033	.00167	.00100	.00029
%RSD	332.41	.89415	1.6183	407.46	217.49	8.0520	131.62
#1	-8.6650	7.6455	-378.40	.00017	.00092	.01192	.00048
#2	4.0076	7.7672	-387.82	.00004	-.00097	.01183	-.00009
#3	-1.0970	7.7630	-390.20	-.00045	.00236	.01361	.00026
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.00079	-.00123	-.00004	-.00096	F -.11755
Stddev	.00015	.00084	.00026	.00021	.00004	.08570
%RSD	186.67	107.30	20.858	588.44	4.4961	72.910
#1	.00023	-.00058	-.00147	-.00026	-.00091	-.02770
#2	.00008	-.00006	-.00096	.00016	-.00098	-.12655
#3	-.00007	-.00171	-.00127	.00000	-.00100	-.19839
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21438.	17818.
Stddev	219.	18.
%RSD	1.0229	.10031
#1	21295.	17799.
#2	21328.	17834.
#3	21690.	17822.

Approved: February 08, 2012

Sample Name: L1201082123 Acquired: 2/7/2012 13:57:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.00729	.00010	.00312	.00009	-.00001	-.00071
Stddev	.00025	.00723	.00058	.00145	.00019	.00001	.01241
%RSD	48.531	99.234	556.58	46.352	207.93	146.36	1740.3
#1	-.00058	.01147	.00037	.00474	.00031	.00000	-.01054
#2	-.00073	.01145	.00050	.00195	-.00005	-.00003	.01324
#3	-.00024	-.00106	-.00056	.00268	.00002	.00000	-.00484
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.00008	.00195	.00112	.01053	-.06463	.00748
Stddev	.00011	.00002	.00021	.00020	.00194	.01870	.00072
%RSD	132.79	21.870	10.985	17.947	18.445	28.938	9.6434
#1	-.00021	-.00008	.00219	.00135	.00885	-.08293	.00811
#2	-.00002	-.00007	.00180	.00102	.01266	-.06541	.00763
#3	-.00002	-.00010	.00186	.00099	.01008	-.04555	.00669
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00864	.00026	-.00007	-.02790	-.00010	15.602	.00064
Stddev	.02321	.00020	.00027	.00894	.00030	22.048	.00126
%RSD	268.77	76.531	401.42	32.051	296.13	141.32	197.60
#1	.00332	.00036	-.00001	-.03410	-.00045	19.662	.00121
#2	.03404	.00003	-.00036	-.01765	.00010	-8.1939	.00152
#3	-.01146	.00037	.00017	-.03195	.00004	35.337	-.00081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: L1201082123 Acquired: 2/7/2012 13:57:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -1.2761	.53771	F -26.362	.00111	-.00175	.01179	.00040
Stddev	1.8167	.01273	1.333	.00083	.00320	.00250	.00024
%RSD	142.36	2.3667	5.0583	74.842	183.23	21.175	59.740
#1	-.02030	.55176	-26.665	.00015	-.00461	.01318	.00064
#2	-3.3592	.52695	-27.518	.00159	-.00233	.01328	.00016
#3	-.44878	.53444	-24.903	.00160	.00171	.00891	.00041
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00011	-.00046	.00013	-.00099	F -.15808
Stddev	.00007	.00189	.00114	.00020	.00021	.20008
%RSD	458.76	1765.0	246.37	159.06	21.010	126.57
#1	.00002	-.00101	-.00178	.00026	-.00105	-.38841
#2	-.00006	-.00095	.00022	.00023	-.00116	-.02733
#3	.00009	.00229	.00017	-.00011	-.00076	-.05849
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20619.	18401.
Stddev	115.	331.
%RSD	.55867	1.7971
#1	20512.	18224.
#2	20603.	18782.
#3	20741.	18196.

Approved: February 08, 2012

Sample Name: L1202002103 Acquired: 2/7/2012 14:01:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	1.1718	.00078	.00918	.21187	.00043	.42151
Stddev	.00055	.0153	.00049	.00090	.00048	.00001	.01209
%RSD	115.74	1.3039	62.125	9.8504	.22702	1.9313	2.8684
#1	-.00085	1.1888	.00078	.00816	.21131	.00043	.41037
#2	.00016	1.1594	.00127	.00946	.21216	.00042	.43437
#3	-.00073	1.1671	.00030	.00991	.21213	.00042	.41980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00068	.01137	.03101	3.6715	.19480	.00457
Stddev	.00012	.00010	.00035	.00095	.0024	.03799	.00148
%RSD	353.39	14.883	3.0642	3.0521	.06487	19.502	32.372
#1	.00016	.00080	.01155	.03153	3.6695	.15232	.00455
#2	-.00007	.00062	.01097	.03159	3.6709	.20658	.00606
#3	.00000	.00062	.01159	.02992	3.6741	.22551	.00310
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.55842	.00916	.00015	4.1971	.00429	F -1816.5	.00823
Stddev	.01182	.00047	.00028	.0199	.00041	41.3	.00087
%RSD	2.1159	5.1497	188.36	.47366	9.6418	2.2749	10.551
#1	.57203	.00970	.00019	4.1755	.00430	-1776.0	.00874
#2	.55240	.00887	-.00015	4.2013	.00387	-1814.9	.00723
#3	.55081	.00890	.00041	4.2146	.00470	-1858.6	.00872
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002103 Acquired: 2/7/2012 14:01:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -1.0855	2.0177	F -76.032	.00147	-.00190	4.3438	.00167
Stddev	8.9935	.0144	1.014	.00029	.00191	.0062	.00010
%RSD	828.49	.71360	1.3340	19.666	100.93	.14310	5.9620
#1	2.7522	2.0100	-76.621	.00121	-.00397	4.3404	.00169
#2	-11.361	2.0088	-76.614	.00141	-.00152	4.3400	.00177
#3	5.3525	2.0343	-74.860	.00178	-.00020	4.3509	.00157
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07002	.01820	-.00040	.00637	.03635	.55157
Stddev	.00035	.00133	.00038	.00048	.00022	.07081
%RSD	.49360	7.3322	96.780	7.5527	.59284	12.837
#1	.06968	.01740	-.00077	.00627	.03654	.63330
#2	.07037	.01974	-.00043	.00595	.03638	.50883
#3	.07002	.01746	.00000	.00690	.03611	.51258
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21473.	17441.
Stddev	183.	205.
%RSD	.85423	1.1780
#1	21266.	17647.
#2	21538.	17236.
#3	21614.	17442.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002104 Acquired: 2/7/2012 14:04:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	10.409	.00961	.02336	.57649	.00409	.22035
Stddev	.00025	.023	.00036	.00076	.00151	.00001	.01242
%RSD	73.588	.22069	3.7587	3.2494	.26269	.25180	5.6351
#1	.00053	10.383	.00925	.02274	.57525	.00409	.21091
#2	.00006	10.427	.00961	.02312	.57818	.00410	.23442
#3	.00042	10.416	.00998	.02421	.57605	.00409	.21573
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00562	.09555	.05376	38.585	.38868	.00109
Stddev	.00008	.00009	.00084	.00056	.103	.04294	.00120
%RSD	113.33	1.5553	.88137	1.0504	.26671	11.048	110.80
#1	-.00011	.00569	.09516	.05311	38.467	.38488	.00067
#2	-.00011	.00552	.09652	.05409	38.657	.34777	.00015
#3	.00002	.00564	.09498	.05408	38.631	.43340	.00244
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15399	.02033	.00137	8.9224	.01595	F -10325.	.04324
Stddev	.00955	.00003	.00003	.0454	.00049	12.	.00059
%RSD	6.2035	.14249	2.5437	.50825	3.0461	.11660	1.3588
#1	.14815	.02031	.00137	8.8710	.01648	-10337.	.04391
#2	.14880	.02036	.00133	8.9567	.01586	-10325.	.04284
#3	.16501	.02031	.00140	8.9395	.01552	-10313.	.04296
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002104 Acquired: 2/7/2012 14:04:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9.0609	F 29.410	F -1467.1	.00186	.00205	11.123	.00610
Stddev	4.3070	.125	3.6	.00092	.00203	.023	.00003
%RSD	47.534	.42594	.24801	49.309	99.102	.20511	.42794
#1	4.2522	29.521	-1471.1	.00285	.00001	11.124	.00607
#2	12.564	29.275	-1466.3	.00104	.00406	11.100	.00611
#3	10.366	29.435	-1464.0	.00169	.00206	11.145	.00612
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23996	.15393	.00085	.09228	.06875	9.3404
Stddev	.00052	.00093	.00145	.00033	.00013	.4638
%RSD	.21632	.60325	170.24	.35931	.19579	4.9655
#1	.23941	.15320	-.00009	.09240	.06873	9.7413
#2	.24044	.15361	.00012	.09254	.06889	9.4475
#3	.24005	.15497	.00253	.09191	.06863	8.8325
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21662.	18296.
Stddev	63.	120.
%RSD	.29223	.65411
#1	21733.	18434.
#2	21642.	18229.
#3	21611.	18223.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002105 Acquired: 2/7/2012 14:07:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	3.7333	.00266	.01167	.04899	.00050	.69532
Stddev	.00031	.0481	.00154	.00028	.00028	.00001	.00479
%RSD	121.03	1.2873	58.038	2.4198	.57383	1.3979	.68948
#1	-.00062	3.7067	.00295	.01165	.04889	.00050	.70084
#2	-.00012	3.7044	.00099	.01139	.04931	.00049	.69293
#3	-.00004	3.7887	.00404	.01196	.04877	.00049	.69220
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00098	.01389	.03634	7.6737	.27707	.00668
Stddev	.00013	.00013	.00021	.00062	.0202	.04135	.00147
%RSD	51.777	13.028	1.4895	1.7110	.26307	14.925	22.042
#1	.00039	.00084	.01410	.03675	7.6604	.31011	.00704
#2	.00017	.00109	.01369	.03563	7.6636	.23070	.00507
#3	.00018	.00101	.01388	.03665	7.6969	.29041	.00795
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.34061	.01955	.00049	.95735	.00717	F -1334.7	.01529
Stddev	.01104	.00031	.00013	.01139	.00054	23.7	.00078
%RSD	3.2410	1.5637	25.694	1.1901	7.5806	1.7787	5.0893
#1	.32802	.01982	.00064	.94721	.00779	-1332.4	.01561
#2	.34520	.01960	.00042	.95514	.00676	-1312.1	.01586
#3	.34862	.01922	.00042	.96968	.00697	-1359.5	.01441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002105 Acquired: 2/7/2012 14:07:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.5405**	**4.3040**	F **-176.57**	**.00069**	**.00112**	**5.3034**	**.00233**
Stddev	1.7385	.0278	3.39	.00176	.00117	.0106	.00007
%RSD	112.86	.64672	1.9209	256.25	104.39	.20068	3.0651
#1	3.5329	4.2719	-173.79	-.00034	.00241	5.3151	.00229
#2	.75699	4.3212	-175.57	.00272	.00082	5.3006	.00241
#3	.33159	4.3189	-180.35	-.00032	.00013	5.2944	.00229
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02318**	**.05142**	**.00026**	**.01566**	**.09025**	**2.1369**
Stddev	.00018	.00146	.00081	.00018	.00005	.0626
%RSD	.77097	2.8436	311.50	1.1450	.05195	2.9289
#1	.02306	.05309	-.00053	.01576	.09024	2.0651
#2	.02339	.05074	.00108	.01545	.09030	2.1660
#3	.02310	.05041	.00023	.01576	.09021	2.1797
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21026.**	**17981.**
Stddev	87.	160.
%RSD	.41326	.89193
#1	21076.	18037.
#2	21076.	17800.
#3	20926.	18105.

Approved: February 08, 2012

Sample Name: L1202002301 Acquired: 2/7/2012 14:11:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	4.4503	.00417	.01156	.10560	.00068	.44605
Stddev	.00060	.0357	.00153	.00066	.00075	.00003	.00167
%RSD	164.27	.80231	36.672	5.7217	.70599	4.8715	.37381
#1	-.00052	4.4707	.00577	.01152	.10556	.00064	.44426
#2	.00030	4.4712	.00273	.01092	.10488	.00067	.44755
#3	-.00088	4.4091	.00401	.01224	.10637	.00071	.44633
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00195	.01856	.01201	12.510	.40228	.00577
Stddev	.00013	.00015	.00018	.00017	.045	.06595	.00058
%RSD	170.85	7.5360	.95455	1.4387	.36304	16.395	10.137
#1	.00022	.00190	.01872	.01206	12.531	.35618	.00644
#2	.00003	.00212	.01859	.01216	12.458	.37283	.00541
#3	-.00002	.00184	.01837	.01182	12.541	.47782	.00546
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45267	.02908	.00170	.89296	.00566	F -1614.3	.00560
Stddev	.02358	.00046	.00025	.02411	.00035	35.2	.00056
%RSD	5.2080	1.5808	14.438	2.7004	6.1854	2.1807	10.038
#1	.47659	.02905	.00182	.87240	.00562	-1654.9	.00496
#2	.45197	.02955	.00142	.91950	.00603	-1594.4	.00579
#3	.42945	.02863	.00186	.88698	.00533	-1593.5	.00604
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002301 Acquired: 2/7/2012 14:11:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.4702**	**2.7225**	F **-111.16**	**.00078**	**.00361**	**8.9805**	**.00185**
Stddev	7.3579	.0121	2.10	.00202	.00185	.0137	.00018
%RSD	212.03	.44369	1.8888	260.74	51.090	.15200	9.7188
#1	1.4447	2.7085	-108.76	.00071	.00479	8.9913	.00178
#2	-2.6629	2.7299	-112.05	.00283	.00149	8.9651	.00206
#3	11.629	2.7290	-112.66	-.00122	.00456	8.9849	.00173
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02272**	**.06629**	**.00091**	**.01909**	**.04588**	**1.5423**
Stddev	.00013	.00177	.00127	.00007	.00036	.0364
%RSD	.59363	2.6762	139.43	.38252	.79318	2.3584
#1	.02258	.06529	.00104	.01915	.04598	1.5395
#2	.02285	.06525	.00210	.01901	.04619	1.5074
#3	.02273	.06834	-.00042	.01910	.04548	1.5800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22156.**	**17430.**
Stddev	298.	370.
%RSD	1.3464	2.1215
#1	21894.	17067.
#2	22092.	17807.
#3	22480.	17416.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002302 Acquired: 2/7/2012 14:14:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	4.5140	.00502	.01781	.09949	.00295	.19603
Stddev	.00073	.0675	.00140	.00052	.00077	.00004	.01179
%RSD	100.66	1.4950	27.899	2.9338	.77584	1.4608	6.0148
#1	.00154	4.5772	.00617	.01783	.09860	.00290	.19933
#2	.00051	4.5218	.00346	.01832	.10002	.00295	.20581
#3	.00012	4.4429	.00543	.01728	.09984	.00299	.18294
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	.00771	.05205	.00785	26.032	.57321	.00334
Stddev	.00010	.00023	.00101	.00044	.169	.01302	.00158
%RSD	38.593	2.9798	1.9375	5.5628	.64942	2.2716	47.260
#1	-.00036	.00759	.05089	.00746	25.858	.56377	.00249
#2	-.00023	.00757	.05266	.00778	26.196	.58807	.00516
#3	-.00017	.00798	.05261	.00832	26.042	.56780	.00237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48341	.03739	.00036	5.3768	.01493	F -2920.8	.01048
Stddev	.01033	.00063	.00034	.0169	.00016	15.4	.00025
%RSD	2.1379	1.6902	95.981	.31425	1.0856	.52752	2.4092
#1	.48021	.03692	.00048	5.3706	.01477	-2933.7	.01075
#2	.47505	.03811	.00062	5.3959	.01509	-2903.7	.01045
#3	.49496	.03714	-.00003	5.3639	.01493	-2924.9	.01024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002302 Acquired: 2/7/2012 14:14:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.210	1.9942	F -85.270	.00279	.00092	6.8657	.00141
Stddev	1.623	.0288	1.881	.00030	.00109	.0027	.00016
%RSD	10.670	1.4447	2.2061	10.753	119.36	.03885	11.097
#1	13.656	1.9972	-85.503	.00269	.00143	6.8683	.00123
#2	16.894	2.0213	-83.283	.00313	.00166	6.8659	.00148
#3	15.079	1.9640	-87.023	.00256	-.00034	6.8630	.00151
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01482	.10610	.00137	.05189	.04339	4.7327
Stddev	.00007	.00163	.00062	.00109	.00021	.1937
%RSD	.48360	1.5330	45.183	2.1021	.47669	4.0931
#1	.01485	.10495	.00175	.05067	.04317	4.8631
#2	.01474	.10796	.00171	.05222	.04341	4.8249
#3	.01488	.10539	.00066	.05278	.04358	4.5101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22240.	19348.
Stddev	567.	119.
%RSD	2.5515	.61394
#1	22847.	19366.
#2	22151.	19457.
#3	21723.	19222.

Approved: February 08, 2012

Sample Name: L1202002303 Acquired: 2/7/2012 14:17:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	5.3466	.00638	.01201	.01787	.00049	.51617
Stddev	.00031	.0214	.00048	.00026	.00043	.00001	.00315
%RSD	715.41	.40018	7.5320	2.1495	2.4013	2.3257	.61028
#1	.00027	5.3514	.00688	.01197	.01787	.00050	.51955
#2	-.00005	5.3232	.00634	.01228	.01830	.00050	.51566
#3	-.00035	5.3652	.00592	.01177	.01744	.00048	.51331
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	.00063	.03339	.00711	18.786	.38054	.00080
Stddev	.00008	.00013	.00053	.00035	.030	.03930	.00204
%RSD	28.928	20.043	1.5775	4.8562	.16157	10.328	255.70
#1	-.00036	.00068	.03396	.00695	18.768	.38071	.00244
#2	-.00023	.00072	.03328	.00751	18.768	.34116	.00143
#3	-.00022	.00048	.03293	.00688	18.821	.41977	-.00148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29800	.00743	.00210	.83026	.00352	F -2153.6	.00672
Stddev	.01719	.00031	.00009	.01681	.00032	13.0	.00073
%RSD	5.7693	4.1712	4.4233	2.0252	9.1450	.60496	10.803
#1	.29120	.00727	.00201	.84398	.00330	-2151.2	.00709
#2	.31756	.00722	.00220	.83529	.00337	-2142.0	.00588
#3	.28525	.00778	.00210	.81150	.00389	-2167.7	.00718
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002303 Acquired: 2/7/2012 14:17:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.8641**	**2.6752**	F **-103.39**	**.00203**	**.00457**	**8.7785**	**.00207**
Stddev	7.5775	.0700	.24	.00208	.00128	.0338	.00011
%RSD	96.356	2.6182	.23478	102.79	27.900	.38552	5.2839
#1	16.166	2.5980	-103.53	.00432	.00453	8.7455	.00219
#2	6.1060	2.6929	-103.11	.00151	.00332	8.7768	.00203
#3	1.3201	2.7347	-103.53	.00025	.00587	8.8132	.00199
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01728**	**.06821**	**-.00015**	**.03800**	**.05491**	**2.3420**
Stddev	.00014	.00182	.00158	.00028	.00001	.0510
%RSD	.83697	2.6725	1037.4	.73036	.00987	2.1777
#1	.01724	.06716	.00167	.03828	.05491	2.3547
#2	.01744	.06716	-.00098	.03772	.05491	2.3855
#3	.01716	.07032	-.00114	.03801	.05492	2.2859
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22220.**	**18925.**
Stddev	69.	122.
%RSD	.30862	.64352
#1	22143.	19059.
#2	22275.	18821.
#3	22241.	18896.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002304 Acquired: 2/7/2012 14:21:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	11.840	.00852	.01411	.02865	.00032	.18071
Stddev	.00032	.050	.00129	.00059	.00035	.00004	.00553
%RSD	95.913	.42210	15.185	4.2031	1.2083	13.295	3.0589
#1	-.00041	11.786	.00935	.01480	.02848	.00028	.18433
#2	-.00062	11.885	.00918	.01376	.02905	.00031	.18346
#3	.00002	11.848	.00703	.01379	.02842	.00037	.17435
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	.00063	.02481	.01180	16.925	.65186	-.00239
Stddev	.00006	.00010	.00063	.00055	.058	.03190	.00175
%RSD	35.913	16.468	2.5534	4.6404	.34051	4.8941	73.338
#1	-.00011	.00051	.02469	.01144	16.861	.65658	-.00251
#2	-.00022	.00069	.02425	.01243	16.941	.61787	-.00058
#3	-.00014	.00069	.02550	.01153	16.973	.68115	-.00407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.56255	.00885	.00278	.95559	.00220	F -1307.7	.01297
Stddev	.01311	.00086	.00015	.02119	.00007	29.6	.00132
%RSD	2.3300	9.7514	5.2441	2.2176	3.0043	2.2659	10.149
#1	.57536	.00786	.00293	.93509	.00226	-1333.8	.01344
#2	.56314	.00941	.00277	.95428	.00219	-1275.5	.01399
#3	.54916	.00928	.00264	.97741	.00213	-1313.8	.01149
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002304 Acquired: 2/7/2012 14:21:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.813	2.5248	F -119.94	.00057	.00214	16.493	.00237
Stddev	3.481	.0463	2.43	.00213	.00139	.081	.00033
%RSD	22.011	1.8342	2.0292	377.06	64.801	.49397	13.746
#1	19.474	2.5431	-122.67	.00119	.00313	16.506	.00212
#2	15.418	2.5592	-119.17	-.00181	.00275	16.567	.00274
#3	12.547	2.4722	-117.99	.00232	.00056	16.406	.00225
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01006	.06962	-.00026	.03576	.06812	2.8956
Stddev	.00011	.00135	.00032	.00037	.00031	.2195
%RSD	1.1050	1.9358	122.86	1.0402	.45327	7.5814
#1	.01018	.07023	-.00021	.03567	.06776	2.6653
#2	.00998	.07056	-.00061	.03544	.06832	2.9191
#3	.01001	.06808	.00003	.03617	.06827	3.1025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22194.	19123.
Stddev	402.	88.
%RSD	1.8092	.45803
#1	22425.	19046.
#2	22427.	19218.
#3	21731.	19105.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002305 Acquired: 2/7/2012 14:24:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00070	4.3026	.00932	.01672	.04664	.00106	.45240
Stddev	.00016	.0204	.00025	.00012	.00045	.00002	.01296
%RSD	22.515	.47465	2.7275	.69050	.95884	1.7084	2.8643
#1	.00062	4.2840	.00926	.01660	.04634	.00107	.43883
#2	.00059	4.2993	.00910	.01683	.04642	.00107	.46464
#3	.00088	4.3245	.00959	.01674	.04715	.00104	.45374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	.00192	.10294	.01150	26.795	.41673	.00364
Stddev	.00005	.00016	.00227	.00015	.042	.05069	.00382
%RSD	25.573	8.3058	2.2019	1.2625	.15507	12.163	105.14
#1	-.00019	.00189	.10050	.01141	26.783	.37393	.00664
#2	-.00017	.00177	.10498	.01166	26.762	.40356	-.00067
#3	-.00027	.00209	.10333	.01141	26.842	.47270	.00494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.66904	.00927	.00340	1.3765	.00401	F -2949.4	.00602
Stddev	.00822	.00044	.00016	.0192	.00056	13.5	.00117
%RSD	1.2279	4.7186	4.7351	1.3923	13.889	.45905	19.399
#1	.67356	.00878	.00350	1.3553	.00464	-2955.5	.00690
#2	.65956	.00941	.00350	1.3818	.00380	-2958.8	.00647
#3	.67400	.00963	.00322	1.3925	.00359	-2933.8	.00470
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002305 Acquired: 2/7/2012 14:24:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.280	2.4619	F -96.647	.00192	.00537	7.2905	.00156
Stddev	3.874	.0547	2.856	.00142	.00238	.0184	.00044
%RSD	37.687	2.2202	2.9546	73.689	44.348	.25244	28.320
#1	10.788	2.4529	-97.501	.00290	.00613	7.2893	.00118
#2	6.1770	2.4122	-93.462	.00257	.00727	7.3095	.00146
#3	13.875	2.5204	-98.979	.00030	.00270	7.2728	.00204
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00718	.11007	.00068	.08181	.04837	5.3438
Stddev	.00014	.00227	.00083	.00097	.00008	.0215
%RSD	1.9591	2.0645	121.92	1.1917	.17195	.40259
#1	.00727	.11207	-.00005	.08068	.04830	5.3623
#2	.00702	.10760	.00050	.08243	.04837	5.3488
#3	.00726	.11052	.00159	.08230	.04846	5.3202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21631.	18626.
Stddev	213.	293.
%RSD	.98355	1.5719
#1	21859.	18519.
#2	21595.	18957.
#3	21438.	18401.

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 14:28:16 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39843	10.101	.40124	.49991	1.0050	.05030	10.068
Stddev	.00143	.044	.00323	.00270	.0052	.00026	.015
%RSD	.35946	.43278	.80441	.54069	.51608	.50903	.14786
#1	.39995	10.059	.40480	.50225	1.0011	.05059	10.060
#2	.39825	10.097	.40042	.50054	1.0030	.05023	10.085
#3	.39710	10.146	.39850	.49695	1.0109	.05009	10.058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05062	.20420	.50055	.51402	4.0355	51.017	1.0315
Stddev	.00022	.00105	.00317	.00233	.0103	.111	.0060
%RSD	.43571	.51263	.63297	.45386	.25614	.21676	.58250
#1	.05080	.20506	.50421	.51550	4.0265	50.934	1.0259
#2	.05069	.20450	.49862	.51523	4.0332	50.974	1.0307
#3	.05037	.20303	.49883	.51133	4.0467	51.143	1.0379
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.280	.51497	.98871	51.724	.50764	F -37.313	.50698
Stddev	.009	.00235	.00174	.104	.00206	19.245	.00207
%RSD	.08879	.45568	.17573	.20062	.40673	51.578	.40743
#1	10.275	.51436	.98881	51.646	.50938	-57.955	.50564
#2	10.290	.51756	.99039	51.842	.50818	-34.120	.50936
#3	10.274	.51299	.98692	51.684	.50536	-19.864	.50594
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 14:28:16 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -5.5407	10.090	F 25.538	1.1978	.39959	5.0336	1.0104
Stddev	8.2817	.059	1.150	.0019	.00196	.0301	.0027
%RSD	149.47	.58086	4.5032	.15481	.49168	.59755	.26203
#1	-13.395	10.151	26.849	1.1972	.40004	5.0548	1.0133
#2	3.1106	10.086	24.699	1.1999	.40128	5.0469	1.0097
#3	-6.3376	10.034	25.065	1.1963	.39743	4.9992	1.0081
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	-10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0196	1.0154	.51546	1.0123	1.0144	F 1.5836
Stddev	.0039	.0030	.00375	.0075	.0032	.0944
%RSD	.38202	.29547	.72834	.73900	.32076	5.9602
#1	1.0152	1.0121	.51895	1.0206	1.0157	1.6779
#2	1.0226	1.0162	.51593	1.0104	1.0167	1.4892
#3	1.0209	1.0179	.51149	1.0060	1.0107	1.5837
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20192.	16769.
Stddev	45.	200.
%RSD	.22460	1.1902
#1	20219.	16550.
#2	20140.	16817.
#3	20218.	16940.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 14:31:32 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00114	-.02726	-.00051	.00319	.00070	-.00001	-.04372
Stddev	.00045	.02591	.00207	.00041	.00019	.00002	.00704
%RSD	39.295	95.060	405.69	12.917	27.119	157.87	16.096
#1	-.00100	-.02780	.00075	.00340	.00059	.00001	-.05182
#2	-.00164	-.00108	.00062	.00272	.00059	-.00002	-.04021
#3	-.00078	-.05289	-.00290	.00346	.00092	-.00003	-.03912
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	-.00007	.00094	.00109	.00213	-.04080	.00535
Stddev	.00012	.00010	.00033	.00054	.00525	.05115	.00164
%RSD	167.29	143.28	34.974	49.116	246.60	125.36	30.689
#1	-.00021	-.00018	.00118	.00072	-.00343	-.09987	.00723
#2	.00002	.00002	.00057	.00171	.00282	-.01165	.00420
#3	-.00003	-.00006	.00107	.00084	.00700	-.01089	.00462
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00105	.00016	.00063	-.06930	-.00061	F -24.746	-.00120
Stddev	.02612	.00056	.00025	.00514	.00064	18.080	.00066
%RSD	2491.9	350.68	39.576	7.4118	104.56	73.061	55.380
#1	-.02677	.00071	.00037	-.07522	-.00004	-7.9455	-.00170
#2	-.00184	-.00042	.00087	-.06657	-.00130	-22.413	-.00145
#3	.02546	.00019	.00065	-.06610	-.00050	-43.878	-.00045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 14:31:32 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -2.2131	F -.45268	F 20.366	-.00096	-.00203	.01975	.00072
Stddev	2.7081	.01047	1.294	.00203	.00197	.00180	.00026
%RSD	122.37	2.3131	6.3526	212.88	97.380	9.1080	36.836
#1	-3.7547	-.46244	18.883	-.00277	-.00430	.02106	.00098
#2	-3.7984	-.45397	21.266	.00125	-.00106	.02049	.00045
#3	.91380	-.44162	20.949	-.00135	-.00072	.01770	.00072
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00029	-.00121	-.00004	.00015	F -.29540
Stddev	.00015	.00048	.00026	.00025	.00005	.13166
%RSD	51.662	164.82	21.699	583.46	30.977	44.571
#1	.00014	.00077	-.00145	.00023	.00014	-.14868
#2	.00045	-.00019	-.00125	-.00009	.00019	-.33426
#3	.00030	.00029	-.00093	-.00027	.00011	-.40325
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20082.	16462.
Stddev	224.	69.
%RSD	1.1138	.41636
#1	20339.	16392.
#2	19931.	16466.
#3	19975.	16529.

Approved: February 08, 2012

Sample Name: L1202002601 Acquired: 2/7/2012 14:35:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00091	.04280	.00013	.00390	.00257	-.00002	.41650
Stddev	.00060	.01857	.00040	.00038	.00010	.00002	.01046
%RSD	65.661	43.386	297.20	9.6664	4.0634	139.90	2.5114
#1	-.00028	.04042	-.00032	.00383	.00255	.00001	.41501
#2	-.00147	.02553	.00040	.00431	.00268	-.00003	.42762
#3	-.00099	.06244	.00032	.00356	.00247	-.00003	.40686
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	-.00015	.00405	.01474	.25394	.27062	.00123
Stddev	.00004	.00026	.00037	.00046	.00147	.02447	.00139
%RSD	513.17	181.86	9.0796	3.1250	.57970	9.0408	113.12
#1	.00004	-.00026	.00419	.01482	.25504	.29745	.00263
#2	-.00001	-.00034	.00363	.01425	.25227	.24954	.00119
#3	-.00005	.00016	.00432	.01516	.25452	.26487	-.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09029	.00458	.00043	.35396	.00039	F -32.752	.00288
Stddev	.02025	.00034	.00029	.01569	.00040	21.696	.00088
%RSD	22.431	7.3394	66.954	4.4338	104.18	66.244	30.651
#1	.07418	.00497	.00041	.33596	.00079	-7.7051	.00226
#2	.11302	.00440	.00016	.36115	-.00002	-44.822	.00389
#3	.08366	.00437	.00074	.36477	.00038	-45.730	.00250
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002601 Acquired: 2/7/2012 14:35:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.1077**	**3.0261**	F **-128.23**	**.00003**	**-.00172**	**.17914**	**.00053**
Stddev	5.5001	.0191	2.11	.00112	.00130	.00077	.00032
%RSD	133.90	.62987	1.6446	4418.6	75.643	.42769	60.103
#1	-1.0681	3.0188	-126.97	-.00017	-.00063	.17865	.00050
#2	9.8829	3.0477	-130.66	.00124	-.00136	.17874	.00087
#3	3.5083	3.0117	-127.05	-.00099	-.00316	.18002	.00023
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00080**	**.00106**	**-.00089**	**.00046**	**.00288**	F **-.10823**
Stddev	.00010	.00055	.00080	.00051	.00003	.05101
%RSD	12.048	51.514	89.581	111.76	.94637	47.127
#1	.00079	.00093	-.00033	.00104	.00285	-.13734
#2	.00071	.00166	-.00181	.00028	.00289	-.13801
#3	.00090	.00059	-.00054	.00006	.00291	-.04934
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20981.**	**17080.**
Stddev	33.	248.
%RSD	.15509	1.4512
#1	20976.	16803.
#2	21016.	17280.
#3	20951.	17159.

Approved: February 08, 2012

Sample Name: L1202002602 Acquired: 2/7/2012 14:38:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	-.01328	.00024	.00227	.00217	-.00003	.43001
Stddev	.00056	.01654	.00091	.00096	.00012	.00001	.01629
%RSD	155.79	124.61	381.22	42.186	5.5349	26.193	3.7876
#1	-.00039	-.03108	.00105	.00274	.00222	-.00002	.44798
#2	-.00090	-.01037	.00041	.00117	.00203	-.00004	.42584
#3	.00022	.00162	-.00075	.00290	.00226	-.00003	.41622
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00009	.00136	.00451	.02743	.14341	.00417
Stddev	.00011	.00028	.00016	.00077	.00403	.01479	.00247
%RSD	102.40	311.19	11.920	17.064	14.705	10.313	59.068
#1	.00001	-.00014	.00154	.00522	.02692	.15819	.00153
#2	-.00012	.00021	.00131	.00462	.03170	.14344	.00641
#3	-.00020	-.00034	.00123	.00369	.02368	.12861	.00459
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09241	.00135	-.00006	.15906	.00006	F -24.081	.00060
Stddev	.00981	.00035	.00020	.00857	.00025	19.967	.00128
%RSD	10.619	25.845	346.84	5.3873	396.60	82.913	212.68
#1	.08988	.00100	.00011	.14947	.00025	-7.6037	-.00087
#2	.08411	.00133	-.00029	.16596	.00016	-46.285	.00117
#3	.10324	.00170	.00000	.16175	-.00022	-18.354	.00150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002602 Acquired: 2/7/2012 14:38:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.8632**	**1.4184**	F **-45.843**	**.00129**	**-.00040**	**.10942**	**.00034**
Stddev	4.5634	.0386	1.103	.00163	.00097	.00176	.00035
%RSD	93.835	2.7229	2.4064	126.06	244.57	1.6077	101.52
#1	.54453	1.3756	-44.926	-.00044	-.00151	.10742	.00002
#2	9.6373	1.4290	-47.068	.00279	.00011	.11010	.00071
#3	4.4079	1.4506	-45.536	.00153	.00022	.11073	.00030
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00082**	**.00011**	**-.00108**	**.00000**	**.00029**	F **-.08606**
Stddev	.00011	.00068	.00074	.00054	.00005	.22069
%RSD	13.695	638.54	69.139	21729.	17.077	256.43
#1	.00078	-.00058	-.00177	.00033	.00027	.16598
#2	.00095	.00078	-.00116	.00030	.00025	-.24463
#3	.00074	.00011	-.00029	-.00062	.00034	-.17954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21796.**	**16769.**
Stddev	155.	126.
%RSD	.71145	.75392
#1	21939.	16838.
#2	21631.	16845.
#3	21818.	16623.

Approved: February 08, 2012

Sample Name: L1202002603 Acquired: 2/7/2012 14:41:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00076**	**-.02198**	**.00035**	**.00274**	**.00072**	**-.00003**	**.12325**
Stddev	.00046	.02354	.00040	.00114	.00007	.00002	.00575
%RSD	59.837	107.09	112.95	41.748	10.007	85.471	4.6627
#1	-.00033	-.04869	.00079	.00398	.00080	-.00004	.12059
#2	-.00124	-.00429	.00002	.00252	.00070	.00000	.12984
#3	-.00072	-.01295	.00024	.00172	.00067	-.00005	.11931
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**-.00015**	**.00360**	**.00466**	**.02404**	**-.01921**	**.00447**
Stddev	.00008	.00014	.00065	.00099	.00071	.03755	.00048
%RSD	264.85	99.092	18.174	21.155	2.9659	195.48	10.752
#1	.00002	-.00030	.00422	.00404	.02374	.02396	.00487
#2	.00012	-.00011	.00366	.00414	.02486	-.04431	.00394
#3	-.00005	-.00002	.00292	.00579	.02353	-.03728	.00460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.06111**	**.00063**	**.00030**	**.16349**	**.00110**	F **-.15041**	**-.00061**
Stddev	.01530	.00071	.00004	.01685	.00047	24.057	.00075
%RSD	25.037	111.82	14.874	10.305	42.486	15995.	122.93
#1	.07872	.00080	.00026	.14602	.00090	-25.111	.00025
#2	.05353	-.00014	.00035	.17964	.00077	1.7714	-.00116
#3	.05108	.00125	.00029	.16482	.00164	22.888	-.00093
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Sample Name: L1202002603 Acquired: 2/7/2012 14:41:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41770	.95955	F -41.181	-.00072	-.00169	.08809	.00000
Stddev	4.4683	.00746	1.287	.00085	.00129	.00121	.0002
%RSD	1069.8	.77738	3.1247	117.66	76.284	1.3683	5340.0
#1	-4.7063	.95293	-40.902	-.00170	-.00179	.08884	-.00011
#2	3.5037	.95808	-42.584	-.00029	-.00035	.08873	-.00012
#3	2.4557	.96763	-40.056	-.00018	-.00292	.08670	.00021
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00044	-.00043	-.00120	.00001	-.00047	F -.04868
Stddev	.00006	.00100	.00088	.00023	.00002	.14974
%RSD	13.331	234.46	73.068	1628.2	4.4718	307.60
#1	.00038	-.00027	-.00088	-.00009	-.00045	-.13778
#2	.00043	.00048	-.00220	.00028	-.00049	.12420
#3	.00050	-.00150	-.00053	-.00015	-.00048	-.13246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21450.	18327.
Stddev	98.	422.
%RSD	.45649	2.3007
#1	21353.	18141.
#2	21446.	18809.
#3	21549.	18030.

Approved: February 08, 2012

Sample Name: L1202002604 Acquired: 2/7/2012 14:45:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00154	-.01790	.00056	.00238	.00256	-.00001	.20558
Stddev	.00071	.01023	.00082	.00061	.00018	.00002	.00590
%RSD	46.140	57.162	147.43	25.516	6.9787	189.51	2.8701
#1	-.00201	-.00647	.00004	.00197	.00255	.00001	.21026
#2	-.00189	-.02621	.00012	.00210	.00238	-.00001	.19895
#3	-.00072	-.02101	.00151	.00308	.00274	-.00004	.20754
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	-.00022	.00149	.00878	.02398	.09999	.00463
Stddev	.00005	.00015	.00032	.00012	.00437	.05518	.00208
%RSD	52.353	66.992	21.214	1.4195	18.239	55.190	44.874
#1	-.00012	-.00028	.00177	.00892	.02521	.12569	.00337
#2	-.00012	-.00033	.00115	.00871	.02760	.13764	.00348
#3	-.00004	-.00005	.00157	.00871	.01912	.03664	.00702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08492	.00047	-.00012	.21917	.00052	F -70.142	-.00068
Stddev	.00233	.00058	.00013	.01876	.00025	4.657	.00146
%RSD	2.7418	124.70	101.71	8.5582	47.855	6.6395	215.59
#1	.08644	-.00002	.00002	.19908	.00079	-67.281	-.00231
#2	.08224	.00030	-.00017	.22220	.00049	-67.630	-.00023
#3	.08607	.00111	-.00022	.23623	.00029	-75.516	.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002604 Acquired: 2/7/2012 14:45:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.41202	1.3301	F -53.849	-.00085	-.00031	.10493	.00022
Stddev	8.3713	.0299	2.074	.00079	.00139	.00182	.00011
%RSD	2031.8	2.2438	3.8515	93.459	454.55	1.7385	51.112
#1	-10.031	1.3036	-51.483	-.00008	-.00184	.10638	.00013
#2	5.2216	1.3244	-55.353	-.00166	.00007	.10554	.00019
#3	3.5738	1.3624	-54.712	-.00080	.00086	.10288	.00035
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.00057	-.00131	.00013	.00366	F -.19173
Stddev	.00006	.00136	.00080	.00013	.00003	.12280
%RSD	9.1232	238.31	61.303	100.31	.76090	64.048
#1	.00064	-.00015	-.00041	.00018	.00368	-.05191
#2	.00054	.00214	-.00157	.00023	.00363	-.24123
#3	.00064	-.00027	-.00194	-.00002	.00365	-.28205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20659.	17324.
Stddev	248.	105.
%RSD	1.2003	.60864
#1	20455.	17274.
#2	20587.	17445.
#3	20935.	17253.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002605 Acquired: 2/7/2012 14:48:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00078	-.00529	-.00046	.00168	.00135	.00000	.08283
Stddev	.00058	.03330	.00039	.00107	.00017	.0000	.00907
%RSD	73.911	629.46	86.617	64.090	12.342	149.60	10.954
#1	-.00111	.00620	-.00013	.00254	.00128	-.00001	.07536
#2	-.00111	.02074	-.00035	.00201	.00154	.00000	.09293
#3	-.00011	-.04282	-.00089	.00047	.00123	.00000	.08021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	-.00018	.00185	.00209	.00428	-.02520	-.00030
Stddev	.00009	.00015	.00021	.00084	.00555	.04830	.00361
%RSD	326.69	84.984	11.552	40.081	129.74	191.65	1211.7
#1	-.00013	-.00025	.00186	.00301	.00531	.02919	-.00072
#2	.00002	.00000	.00206	.00190	-.00171	-.04172	.00350
#3	.00003	-.00027	.00163	.00137	.00925	-.06307	-.00368
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04018	-.00020	.00009	.10880	.00015	F -10.856	-.00124
Stddev	.01008	.00050	.00025	.01614	.00023	24.463	.00092
%RSD	25.074	254.38	267.90	14.833	152.13	225.35	73.921
#1	.04233	-.00067	.00021	.09936	.00015	-27.662	-.00057
#2	.02921	-.00026	-.00020	.12743	-.00008	17.210	-.00229
#3	.04902	.00034	.00027	.09960	.00038	-22.115	-.00087
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002605 Acquired: 2/7/2012 14:48:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.1218**	**.78172**	F **-35.632**	**.00147**	**.00022**	**.07054**	**.00001**
Stddev	9.4082	.05185	3.227	.00100	.00265	.00092	.00023
%RSD	228.25	6.6328	9.0570	67.767	1225.9	1.3064	1574.9
#1	9.3076	.75614	-39.342	.00090	.00288	.07016	-.00023
#2	9.7961	.74763	-33.479	.00090	-.00242	.07159	.00021
#3	-6.7382	.84139	-34.074	.00263	.00019	.06987	.00007
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00051**	**-.00166**	**-.00060**	**-.00002**	**-.00079**	F **-.23249**
Stddev	.00005	.00139	.00162	.00040	.00001	.18183
%RSD	9.1530	83.693	270.66	1698.9	1.4941	78.210
#1	.00046	-.00313	-.00110	-.00047	-.00080	-.06203
#2	.00055	-.00150	.00121	.00029	-.00078	-.42388
#3	.00052	-.00036	-.00190	.00011	-.00078	-.21156
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21092.**	**17348.**
Stddev	402.	228.
%RSD	1.9050	1.3149
#1	20817.	17151.
#2	20905.	17598.
#3	21553.	17296.

Approved: February 08, 2012

Sample Name: L1202002606 Acquired: 2/7/2012 14:52:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	.02278	.00009	.00364	.00098	-.00002	.27815
Stddev	.00074	.01603	.00246	.00055	.00020	.00002	.00170
%RSD	122.44	70.367	2762.7	15.107	20.607	118.77	.61005
#1	.00004	.01700	.00229	.00393	.00116	.00000	.27648
#2	-.00141	.04089	.00054	.00300	.00103	-.00002	.27987
#3	-.00044	.01044	-.00256	.00398	.00076	-.00004	.27811
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00003	.00397	.02625	.06636	.18441	-.00237
Stddev	.00003	.00012	.00046	.00019	.00569	.03732	.00235
%RSD	159.30	417.30	11.717	.71179	8.5763	20.239	99.469
#1	-.00001	-.00007	.00444	.02629	.06916	.14504	-.00508
#2	.00005	.00016	.00395	.02641	.05981	.18890	-.00095
#3	.00001	.00000	.00351	.02604	.07011	.21928	-.00106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06262	.00241	.00009	.30414	.00135	F -3.3061	.00083
Stddev	.00700	.00024	.00019	.02193	.00072	13.637	.00216
%RSD	11.180	10.147	205.96	7.2120	53.714	412.47	259.13
#1	.06301	.00242	-.00013	.29628	.00185	8.2455	.00258
#2	.06942	.00266	.00020	.28722	.00052	.18521	-.00158
#3	.05543	.00217	.00021	.32892	.00168	-18.349	.00149
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202002606 Acquired: 2/7/2012 14:52:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.513	2.3470	F -103.36	.00182	-.00142	.14359	.00060
Stddev	8.068	.0205	1.51	.00144	.00206	.00031	.00011
%RSD	64.480	.87352	1.4581	79.352	144.68	.21657	18.444
#1	3.2679	2.3371	-104.97	.00336	.00086	.14375	.00072
#2	18.133	2.3332	-101.98	.00050	-.00314	.14379	.00053
#3	16.137	2.3705	-103.14	.00160	-.00200	.14323	.00054
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00055	.00064	.00020	.00030	.00387	F -.08047
Stddev	.00012	.00102	.00058	.00004	.00010	.07453
%RSD	21.572	159.03	291.06	13.925	2.5188	92.620
#1	.00066	-.00018	.00045	.00032	.00381	-.15199
#2	.00042	.00178	-.00047	.00034	.00383	-.00326
#3	.00058	.00032	.00062	.00026	.00399	-.08616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21462.	18048.
Stddev	510.	310.
%RSD	2.3745	1.7157
#1	21313.	17924.
#2	21044.	17820.
#3	22030.	18401.

Approved: February 08, 2012

Sample Name: LLICV Acquired: 2/7/2012 14:55:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00974	k -.03310	k -.00013	k .00067	.01050	k .00193
Stddev	.00063	.01753	.00178	.00038	.00019	.00003
%RSD	6.5199	52.979	1391.6	56.363	1.7638	1.2989
#1	k .01044	k -.04188	k .00031	k .00040	.01050	k .00195
#2	.00957	-.04450	-.00209	.00051	.01068	.00194
#3	.00920	-.01291	.00139	.00111	.01031	.00190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00286	k .00995	k .02127	k .02193	k .02244	k .00013
Stddev	.00797	.00025	.00017	.00049	.00984	.00400
%RSD	278.61	2.4934	.82105	2.2572	43.841	3062.8
#1	-.00464	k .00967	k .02147	k .02247	k .01134	k .00218
#2	.00199	.01006	.02118	.02183	.03009	.00269
#3	.01124	.01013	.02116	.02149	.02588	-.00448
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.10133	.00396	k .00988	k .01154	k .00017	.51578
Stddev	.02826	.00244	.02004	.00086	.00007	.02025
%RSD	27.887	61.660	202.77	7.4293	39.142	3.9262
#1	-.13113	.00469	k -.01194	k .01057	k .00022	.53756
#2	-.07493	.00595	.02745	.01221	.00010	.49753
#3	-.09792	.00124	.01413	.01185	.00020	.51225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012
Erin D. Long

Sample Name: LLICV Acquired: 2/7/2012 14:55:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^ *****	kF -26.469	k .00023	8.7343	4.2197	F -206.76
Stddev	-----	37.270	.00173	4.7264	5.1261	256.22
%RSD	-----	140.80	762.71	54.113	121.48	123.92
#1	^ -----	k -58.793	k .00140	3.4357	2.4392	-114.26
#2	1.1016	-34.913	.00105	10.251	9.9986	-496.38
#3	.42653	14.298	-.00176	12.516	.22135	-9.629
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit		900.00				9.0000
Low Limit		-.00400				-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00053	-.00139	.05891	k .00037	.00014	k -.00081
Stddev	.00049	.00123	.06043	.00016	.00008	.00056
%RSD	93.169	88.237	102.59	43.385	58.481	68.705
#1	k .00091	-.00199	.12548	k .00024	.00017	k -.00136
#2	.00070	.00002	.04375	.00033	.00021	-.00024
#3	-.00003	-.00221	.00750	.00056	.00005	-.00083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	k -.00114	k .01126	^ *****	kF -.29828
Stddev	.00063	.00008	-----	.06082
%RSD	55.000	.68299	-----	20.389
#1	k -.00172	k .01135	^ -----	k -.23458
#2	-.00121	.01121	.07769	-.30453
#3	-.00048	.01122	.02050	-.35573
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Sample Name: LLICV Acquired: 2/7/2012 14:55:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21193.**	**18773.**
Stddev	189.	212.
%RSD	.89206	1.1286
#1	20983.	18807.
#2	21249.	18546.
#3	21348.	18966.

Approved: February 08, 2012

Sample Name: LLICV Acquired: 2/7/2012 15:03:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19518	-.01017	.00253	.00060	.21265	.03827	-.00677
Stddev	.00178	.02347	.00105	.00139	.00467	.00012	.01225
%RSD	.91242	230.89	41.625	230.85	2.1961	.32610	180.93
#1	.19430	-.02392	.00375	-.00047	.21596	.03841	.00416
#2	.19401	-.02351	.00201	.00218	.20731	.03821	-.00445
#3	.19723	.01694	.00184	.00010	.21468	.03819	-.02001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20448	.41689	.42537	.49053	.00265	-.03260	.00089
Stddev	.00095	.00097	.00082	.00089	.00043	.07021	.00108
%RSD	.46260	.23260	.19220	.18042	16.272	215.38	121.55
#1	.20557	.41781	.42570	.49126	.00215	-.11251	.00213
#2	.20401	.41588	.42444	.48955	.00291	.01921	.00018
#3	.20386	.41698	.42598	.49078	.00288	-.00449	.00036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01138	.22049	.00064	10.258	8.3934	7.1256	-.00046
Stddev	.00723	.00445	.00015	.210	.0190	16.147	.00135
%RSD	63.500	2.0176	23.311	2.0469	.22680	226.61	295.53
#1	.00785	.22384	.00052	10.417	8.4058	-1.4433	.00050
#2	.00660	.21544	.00061	10.020	8.3715	-2.9307	.00014
#3	.01969	.22219	.00081	10.337	8.4028	25.751	-.00201
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: LLICV Acquired: 2/7/2012 15:03:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.321	F -.21327	F 16.949	.00390	-.00040	.00512	-.00010
Stddev	11.350	.01802	.661	.00018	.00085	.00030	.00023
%RSD	109.97	8.4486	3.8999	4.5599	214.97	5.9436	228.32
#1	-2.0230	-.20511	16.522	.00407	.00048	.00537	-.00014
#2	20.307	-.20078	16.614	.00372	-.00123	.00519	.00015
#3	12.678	-.23393	17.710	.00389	-.00044	.00478	-.00031
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00044	.00564	.22402	.43124	F -.18429
Stddev	.00015	.00124	.00055	.00029	.00071	.11690
%RSD	346.58	279.21	9.8181	.12772	.16465	63.430
#1	.00022	.00175	.00628	.22435	.43061	-.31141
#2	-.00003	.00029	.00533	.22385	.43109	-.16006
#3	-.00005	-.00071	.00531	.22387	.43201	-.08141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22318.	19268.
Stddev	166.	357.
%RSD	.74315	1.8537
#1	22501.	18872.
#2	22277.	19566.
#3	22177.	19368.

Approved: February 08, 2012

Sample Name: LLICV Acquired: 2/7/2012 15:24:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00787	-.01065	.00059	.00025	.01008	.00178	-.00482
Stddev	.00093	.06363	.00064	.00116	.00024	.00001	.00552
%RSD	11.809	597.38	108.55	460.55	2.3711	.30157	114.33
#1	.00786	.06269	.00079	.00158	.01012	.00179	-.00160
#2	.00694	-.04343	-.00013	-.00049	.00982	.00178	-.00168
#3	.00880	-.05121	.00110	-.00034	.01029	.00178	-.01119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00934	.01983	.02083	.02396	.00275	.03830	-.00406
Stddev	.00010	.00026	.00012	.00053	.00259	.02193	.00409
%RSD	1.0740	1.2896	.58807	2.2310	94.237	57.247	100.78
#1	.00945	.02010	.02081	.02438	.00237	.02070	-.00878
#2	.00930	.01979	.02096	.02414	.00036	.03135	-.00156
#3	.00926	.01959	.02071	.02336	.00550	.06287	-.00184
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01955	.01124	.00042	.49194	.40919	29.308	-.00011
Stddev	.02680	.00062	.00005	.01844	.00078	21.303	.00009
%RSD	137.07	5.5177	11.414	3.7486	.19080	72.687	81.100
#1	.02921	.01095	.00044	.47252	.41008	42.493	-.00017
#2	-.01074	.01082	.00037	.49410	.40887	40.700	-.00001
#3	.04019	.01195	.00046	.50921	.40863	4.7312	-.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: LLICV Acquired: 2/7/2012 15:24:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.1218**	F **-.15193**	**6.0630**	**.00200**	**-.00207**	**.00368**	**.00151**
Stddev	8.2253	.02426	1.8491	.00055	.00088	.00096	.00035
%RSD	115.49	15.967	30.498	27.575	42.442	25.953	23.374
#1	.49733	-.15613	5.8945	.00239	-.00251	.00264	.00163
#2	4.5398	-.17381	7.9906	.00137	-.00265	.00451	.00178
#3	16.328	-.12584	4.3039	.00224	-.00106	.00389	.00111
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000					
Low Limit		-.00400					

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**-.00150**	**.00039**	**.01043**	**.02073**	F **-.16693**
Stddev	.00015	.00215	.00150	.00022	.00018	.06933
%RSD	93.990	142.79	379.89	2.1466	.87723	41.534
#1	.00031	-.00024	-.00133	.01019	.02079	-.10722
#2	.00014	-.00398	.00114	.01064	.02087	-.24297
#3	.00002	-.00028	.00137	.01046	.02052	-.15061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21788.**	**17564.**
Stddev	200.	99.
%RSD	.91832	.56382
#1	21610.	17464.
#2	21749.	17566.
#3	22004.	17663.

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 15:28:26 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39332	10.076	.39012	.49155	.98244	.04843	9.9080
Stddev	.00772	.054	.00063	.00986	.00191	.00099	.0431
%RSD	1.9620	.53136	.16135	2.0067	.19476	2.0506	.43482
#1	.38459	10.028	.39085	.48078	.98228	.04733	9.8931
#2	.39614	10.134	.38973	.49373	.98062	.04872	9.8743
#3	.39923	10.065	.38979	.50014	.98444	.04925	9.9565
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04922	.19629	.49685	.49413	3.9756	49.500	.98232
Stddev	.00016	.00022	.00837	.00076	.0144	.214	.00475
%RSD	.31612	.11329	1.6836	.15315	.36230	.43137	.48386
#1	.04939	.19604	.48745	.49417	3.9922	49.445	.98060
#2	.04909	.19647	.49962	.49335	3.9676	49.319	.97868
#3	.04919	.19637	.50348	.49486	3.9670	49.735	.98770
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9699	.48913	.99211	49.481	.49865	F -20.451	.49929
Stddev	.0472	.00228	.00130	.255	.00121	43.848	.00196
%RSD	.47377	.46552	.13130	.51539	.24329	214.40	.39274
#1	10.000	.48691	.99194	49.273	.49963	-70.981	.49720
#2	9.9154	.48900	.99349	49.403	.49729	2.0445	.49957
#3	9.9941	.49146	.99090	49.765	.49903	7.5836	.50109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 15:28:26 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.567**	**10.111**	F **16.895**	**1.1819**	**.39062**	**4.8894**	**.99220**
Stddev	2.147	.070	.321	.0022	.00236	.0055	.00098
%RSD	20.316	.69055	1.8998	.18899	.60477	.11296	.09843
#1	8.1127	10.147	17.035	1.1809	.38939	4.8954	.99171
#2	12.097	10.031	16.528	1.1803	.38912	4.8846	.99156
#3	11.491	10.156	17.122	1.1844	.39334	4.8883	.99332
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			10.000				
Range			10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97779**	**.97060**	**.50293**	**.96178**	**.99996**	F **.87745**
Stddev	.00528	.00181	.00106	.01747	.00073	.18275
%RSD	.54011	.18672	.20997	1.8162	.07272	20.827
#1	.97390	.96935	.50302	.94241	.99935	.73932
#2	.97567	.96978	.50183	.96659	.99978	.80836
#3	.98380	.97268	.50394	.97634	1.0008	1.0847
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21304.**	**17695.**
Stddev	144.	101.
%RSD	.67461	.57202
#1	21370.	17747.
#2	21404.	17758.
#3	21140.	17578.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 15:31:40 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00064	-.01009	.00004	.00293	-.00012	-.00002	-.00947
Stddev	.00038	.03938	.00160	.00136	.00024	.00003	.00282
%RSD	58.976	390.40	3782.0	46.304	193.00	163.94	29.760
#1	-.00022	.02115	.00189	.00424	.00009	-.00002	-.01092
#2	-.00095	-.05433	-.00083	.00153	-.00037	-.00004	-.01125
#3	-.00074	.00292	-.00093	.00302	-.00009	.00001	-.00622
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.00023	.00042	.00089	.00565	.05929	-.00050
Stddev	.00012	.00024	.00038	.00023	.00427	.01514	.00129
%RSD	152.01	105.52	88.682	25.548	75.569	25.542	256.25
#1	-.00007	-.00039	.00084	.00103	.00313	.04216	.00035
#2	-.00020	.00005	.00010	.00100	.00325	.07089	-.00199
#3	.00004	-.00033	.00033	.00062	.01059	.06483	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00172	-.00037	.00072	-.01038	-.00088	F -9.5757	.00093
Stddev	.00407	.00048	.00033	.01410	.00044	14.219	.00078
%RSD	236.42	129.47	45.283	135.87	50.113	148.49	84.181
#1	.00174	-.00087	.00035	.00352	-.00037	2.2714	.00182
#2	-.00621	-.00031	.00086	-.00999	-.00117	-25.344	.00056
#3	-.00070	.00008	.00095	-.02466	-.00110	-5.6545	.00039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 15:31:40 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **7.2515**	F **-.18271**	F **6.7379**	**.00077**	**-.00232**	**.00685**	**.00093**
Stddev	5.1609	.08000	1.9938	.00067	.00279	.00113	.00018
%RSD	71.170	43.785	29.591	87.434	120.00	16.434	19.201
#1	12.781	-.15702	8.8209	.00063	-.00444	.00793	.00099
#2	2.5631	-.27240	6.5456	.00150	-.00336	.00694	.00107
#3	6.4099	-.11871	4.8472	.00018	.00083	.00568	.00073
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**-.00038**	**-.00117**	**-.00021**	**-.00047**	F **-.16294**
Stddev	.00013	.00073	.00099	.00035	.00012	.18451
%RSD	56.054	189.97	84.701	165.46	24.631	113.23
#1	.00024	-.00086	-.00107	.00017	-.00052	-.31982
#2	.00037	-.00074	-.00221	-.00053	-.00054	-.20935
#3	.00010	.00045	-.00023	-.00028	-.00033	.04034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21103.**	**17660.**
Stddev	90.	163.
%RSD	.42441	.92496
#1	21097.	17848.
#2	21195.	17582.
#3	21017.	17551.

Approved: February 08, 2012

Sample Name: PBW 4A Acquired: 2/7/2012 15:35:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388649-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00110	.00040	.00116	.00243	-.00024	-.00005	-.01614
Stddev	.00071	.04965	.00020	.00031	.00016	.00001	.00992
%RSD	64.759	12298.	16.928	12.750	64.744	22.694	61.452
#1	-.00089	-.02857	.00127	.00230	-.00010	-.00006	-.02737
#2	-.00189	-.02794	.00094	.00278	-.00022	-.00005	-.00857
#3	-.00051	.05773	.00128	.00220	-.00041	-.00004	-.01248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	-.00030	.00114	.00086	.00532	.06918	-.00615
Stddev	.00006	.00024	.00045	.00085	.00343	.05427	.00187
%RSD	48.657	80.504	39.969	98.665	64.422	78.447	30.347
#1	-.00006	-.00041	.00088	.00092	.00644	.03281	-.00752
#2	-.00019	-.00002	.00087	-.00002	.00148	.04318	-.00690
#3	-.00015	-.00048	.00166	.00167	.00806	.13157	-.00402
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02041	-.00022	.00006	-.01897	-.00055	2.6467	-.00059
Stddev	.01624	.00027	.00025	.01271	.00047	12.452	.00075
%RSD	79.556	122.95	400.69	66.973	85.989	470.46	127.35
#1	.03636	-.00005	.00013	-.02336	-.00044	6.1701	-.00130
#2	.00390	-.00008	-.00022	-.00465	-.00014	12.957	.00019
#3	.02097	-.00053	.00028	-.02890	-.00106	-11.187	-.00064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Sample Name: PBW 4A Acquired: 2/7/2012 15:35:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388649-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9.6212	F -.15078	3.9332	.00050	-.00375	.01063	.00019
Stddev	2.9826	.00818	.7907	.00076	.00306	.00085	.00026
%RSD	31.000	5.4262	20.102	150.44	81.514	8.0386	139.40
#1	11.558	-.15349	4.7349	-.00007	-.00652	.01133	.00033
#2	6.1866	-.14158	3.1540	.00021	-.00047	.01089	-.00011
#3	11.119	-.15726	3.9108	.00136	-.00427	.00968	.00035
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000					
Low Limit	-.00400	-.00400					

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	-.00073	-.00092	-.00015	-.00105	F -.00702
Stddev	.00016	.00145	.00098	.00040	.00010	.10791
%RSD	117.07	197.94	106.59	258.10	9.3954	1537.9
#1	-.00005	-.00211	-.00049	-.00038	-.00096	.01227
#2	.00024	.00078	-.00022	-.00040	-.00102	-.12327
#3	.00020	-.00086	-.00203	.00031	-.00115	.08995
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21192.	17523.
Stddev	280.	138.
%RSD	1.3190	.78613
#1	20877.	17667.
#2	21408.	17509.
#3	21292.	17393.

Approved: February 08, 2012

Sample Name: LCSW 4A Acquired: 2/7/2012 15:38:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388649-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20017	4.9889	.19566	.99017	.48642	.02428	4.8872
Stddev	.00138	.0945	.00103	.00901	.00081	.00028	.0228
%RSD	.69075	1.8940	.52736	.91003	.16716	1.1638	.46749
#1	.20070	4.8869	.19535	.98968	.48553	.02421	4.8633
#2	.19860	5.0063	.19482	.98142	.48713	.02403	4.8896
#3	.20121	5.0735	.19681	.99942	.48660	.02458	4.9088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02467	.10053	.24758	.25263	1.9492	24.835	.49250
Stddev	.00015	.00026	.00304	.00008	.0024	.083	.00112
%RSD	.59576	.25392	1.2290	.03274	.12356	.33358	.22724
#1	.02477	.10076	.24785	.25254	1.9520	24.761	.49242
#2	.02474	.10026	.24441	.25268	1.9480	24.819	.49365
#3	.02451	.10057	.25048	.25268	1.9477	24.925	.49142
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0278	.24956	.49685	25.645	.25351	F -17.119	.25303
Stddev	.0399	.00077	.00161	.118	.00054	25.972	.00081
%RSD	.79354	.30985	.32443	.45986	.21343	151.71	.31892
#1	4.9821	.24889	.49680	25.514	.25379	-15.619	.25338
#2	5.0458	.25041	.49527	25.682	.25288	8.0696	.25361
#3	5.0555	.24937	.49849	25.741	.25385	-43.809	.25211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: LCSW 4A Acquired: 2/7/2012 15:38:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388649-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.714	5.2046	5.4961	.59149	.19693	2.5613	.46550
Stddev	1.627	.0297	.6061	.00147	.00249	.0027	.00150
%RSD	9.7356	.57061	11.028	.24797	1.2623	.10637	.32179
#1	16.653	5.2350	5.8791	.59069	.19843	2.5626	.46696
#2	18.372	5.2031	5.8119	.59318	.19831	2.5631	.46396
#3	15.119	5.1756	4.7973	.59060	.19406	2.5582	.46559
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000						
Low Limit	-.00400						

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49120	.48557	.26129	.49048	.50517	.22161
Stddev	.00149	.00049	.00186	.00527	.00115	.05413
%RSD	.30323	.09991	.71096	1.0739	.22669	24.425
#1	.48948	.48544	.26201	.48986	.50516	.28298
#2	.49196	.48610	.25917	.48555	.50403	.18069
#3	.49215	.48516	.26267	.49603	.50632	.20115
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21039.	17820.
Stddev	251.	62.
%RSD	1.1947	.34696
#1	21027.	17882.
#2	21296.	17758.
#3	20793.	17821.

Approved: February 08, 2012

Sample Name: L1202001601 Acquired: 2/7/2012 15:41:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388649-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.11077	-.00066	.04311	.06619	.00001	97.679
Stddev	.00047	.02314	.00124	.00126	.00073	.00003	.244
%RSD	106.65	20.891	188.64	2.9319	1.0996	225.57	.24957
#1	-.00006	.10369	.00064	.04414	.06684	-.00001	97.843
#2	-.00030	.09200	-.00183	.04349	.06540	.00004	97.398
#3	-.00098	.13663	-.00078	.04170	.06633	.00001	97.795
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00013	.00419	.00119	.27784	3.3252	.01581
Stddev	.00009	.00008	.00025	.00092	.00098	.0101	.00083
%RSD	30.584	59.454	6.0334	76.974	.35096	.30538	5.2449
#1	.00021	.00014	.00390	.00165	.27699	3.3194	.01566
#2	.00031	.00005	.00429	.00014	.27890	3.3369	.01506
#3	.00039	.00020	.00437	.00179	.27763	3.3192	.01670
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.641	.00115	.00124	35.933	.00016	F -3579.6	.00199
Stddev	.042	.00048	.00023	.038	.00040	41.7	.00111
%RSD	.22691	42.209	18.200	.10613	244.18	1.1641	55.437
#1	18.679	.00150	.00149	35.968	.00058	-3591.7	.00227
#2	18.596	.00135	.00118	35.892	-.00021	-3614.0	.00078
#3	18.648	.00059	.00105	35.938	.00012	-3533.3	.00294
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001601 Acquired: 2/7/2012 15:41:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388649-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.5355	F 1484.3	F -71049.	.00140	-.00027	18.436	.00040
Stddev	8.1538	3.0	137.	.00137	.00055	.034	.00028
%RSD	147.30	.20150	.19212	97.831	202.88	.18440	68.884
#1	-2.0321	1480.9	-70925.	-.00015	.00023	18.403	.00009
#2	14.170	1486.5	-71195.	.00190	-.00085	18.471	.00060
#3	4.4681	1485.4	-71026.	.00245	-.00019	18.435	.00053
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.74306	-.00130	.00013	.00283	.00892	F -.16509
Stddev	.00087	.00108	.00100	.00018	.00011	.08371
%RSD	.11742	83.125	792.16	6.2277	1.1927	50.705
#1	.74317	-.00072	.00108	.00269	.00904	-.12882
#2	.74214	-.00063	-.00092	.00277	.00885	-.26082
#3	.74387	-.00254	.00022	.00303	.00886	-.10563
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20704.	17522.
Stddev	76.	216.
%RSD	.36817	1.2356
#1	20636.	17302.
#2	20786.	17735.
#3	20690.	17527.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001602S Acquired: 2/7/2012 15:45:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388649-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19937	5.0429	.19968	1.0448	.55592	.02508	101.19
Stddev	.00152	.0183	.00204	.0056	.00259	.00017	.22
%RSD	.76329	.36363	1.0231	.53930	.46504	.67763	.21753
#1	.19956	5.0640	.19808	1.0438	.55303	.02505	101.17
#2	.20079	5.0334	.20198	1.0509	.55802	.02526	101.42
#3	.19776	5.0312	.19896	1.0397	.55669	.02492	100.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02514	.09939	.25072	.25038	2.1971	28.180	.51528
Stddev	.00012	.00018	.00204	.00117	.0075	.086	.00311
%RSD	.46631	.18567	.81502	.46694	.34278	.30423	.60410
#1	.02503	.09918	.24999	.25050	2.1893	28.085	.51192
#2	.02527	.09947	.25303	.25148	2.2043	28.203	.51585
#3	.02513	.09951	.24915	.24915	2.1978	28.252	.51807
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.375	.25104	.49712	60.967	.24964	F -3438.7	.24924
Stddev	.112	.00032	.00167	.090	.00112	7.3	.00175
%RSD	.47986	.12776	.33522	.14688	.44698	.21118	.70114
#1	23.257	.25096	.49525	61.046	.24838	-3437.1	.24818
#2	23.480	.25139	.49768	60.985	.25001	-3432.3	.24828
#3	23.387	.25077	.49844	60.870	.25051	-3446.6	.25126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001602S Acquired: 2/7/2012 15:45:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388649-04

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -5.2832	F 1490.5	F -70327.	.59397	.19748	20.675	.52332
Stddev	.5863	6.3	129.	.00486	.00078	.052	.00183
%RSD	11.097	.42536	.18305	.81787	.39265	.24953	.34874
#1	-5.9069	1496.5	-70475.	.58841	.19795	20.734	.52260
#2	-4.7435	1491.0	-70267.	.59735	.19789	20.651	.52540
#3	-5.1991	1483.9	-70240.	.59616	.19658	20.639	.52197
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2310	.48860	.25017	.50092	.50838	.23724
Stddev	.0019	.00126	.00054	.00288	.00079	.18367
%RSD	.15076	.25708	.21480	.57579	.15575	77.421
#1	1.2303	.48736	.24965	.50042	.50919	.44403
#2	1.2331	.48855	.25013	.50402	.50834	.09307
#3	1.2296	.48988	.25073	.49832	.50761	.17462
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20317.	17192.
Stddev	33.	96.
%RSD	.16361	.55582
#1	20345.	17190.
#2	20280.	17098.
#3	20325.	17289.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001603SD Acquired: 2/7/2012 15:48:37 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388649-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20316	5.1213	.20133	1.0631	.56426	.02529	104.13
Stddev	.00107	.0211	.00064	.0060	.00333	.00015	.58
%RSD	.52802	.41292	.31640	.56725	.58932	.59907	.55708
#1	.20404	5.1432	.20060	1.0672	.56046	.02541	103.49
#2	.20196	5.1199	.20180	1.0562	.56664	.02512	104.61
#3	.20347	5.1010	.20157	1.0660	.56568	.02533	104.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02562	.10065	.25390	.25237	2.2212	28.722	.52483
Stddev	.00020	.00036	.00182	.00089	.0167	.080	.00455
%RSD	.77210	.36081	.71609	.35426	.75378	.27970	.86682
#1	.02584	.10090	.25501	.25299	2.2093	28.629	.51998
#2	.02544	.10023	.25181	.25134	2.2403	28.772	.52551
#3	.02559	.10081	.25490	.25277	2.2139	28.765	.52900
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.898	.25187	.50855	62.351	.25297	F -3474.4	.25082
Stddev	.132	.00162	.00172	.331	.00112	39.3	.00118
%RSD	.55275	.64305	.33733	.53099	.44436	1.1311	.46983
#1	23.746	.25001	.51029	61.987	.25380	-3501.5	.25168
#2	23.987	.25292	.50686	62.634	.25169	-3429.3	.24948
#3	23.960	.25270	.50848	62.433	.25342	-3492.3	.25130
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001603SD Acquired: 2/7/2012 15:48:37 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388649-05

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.176	F 1526.6	F -72774.	.60455	.20042	21.357	.53792
Stddev	10.711	8.4	203.	.00189	.00266	.056	.00160
%RSD	105.26	.55312	.27880	.31334	1.3295	.25995	.29696
#1	1.3944	1527.1	-72821.	.60345	.19911	21.387	.53957
#2	22.109	1517.9	-72552.	.60347	.19867	21.293	.53638
#3	7.0245	1534.8	-72949.	.60674	.20349	21.392	.53782
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2610	.49563	.25480	.50727	.51043	.24464
Stddev	.0093	.00243	.00123	.00249	.00149	.15380
%RSD	.73869	.48939	.48304	.49064	.29248	62.868
#1	1.2503	.49369	.25606	.50933	.51215	.13657
#2	1.2669	.49835	.25360	.50450	.50960	.42071
#3	1.2659	.49486	.25474	.50797	.50953	.17662
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20590.	17820.
Stddev	140.	147.
%RSD	.67783	.82598
#1	20470.	17693.
#2	20557.	17788.
#3	20743.	17981.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001604 Acquired: 2/7/2012 15:51:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	.01456	.00073	.03147	.06363	-.00005	60.752
Stddev	.00025	.01779	.00106	.00107	.00038	.00002	.115
%RSD	104.54	122.13	145.50	3.3919	.59128	42.641	.18856
#1	-.00044	.03351	.00045	.03264	.06320	-.00003	60.677
#2	.00004	.01196	-.00016	.03056	.06380	-.00007	60.884
#3	-.00031	-.00178	.00191	.03119	.06390	-.00005	60.695
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	-.00024	.00380	.00015	.19647	2.6633	.01579
Stddev	.00010	.00029	.00043	.00008	.00493	.0205	.00103
%RSD	74.872	122.01	11.436	57.445	2.5113	.77151	6.5477
#1	.00006	-.00013	.00397	.00008	.19193	2.6550	.01649
#2	.00024	-.00056	.00330	.00024	.20172	2.6867	.01629
#3	.00009	-.00002	.00412	.00012	.19576	2.6482	.01460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.082	.00068	.00194	29.796	.00065	F -1632.3	-.00061
Stddev	.017	.00051	.00009	.107	.00051	36.9	.00176
%RSD	.14957	75.495	4.4915	.35928	78.291	2.2613	286.40
#1	11.071	.00038	.00204	29.834	.00057	-1606.5	-.00265
#2	11.101	.00039	.00187	29.879	.00120	-1674.6	.00046
#3	11.074	.00128	.00192	29.675	.00019	-1615.9	.00034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001604 Acquired: 2/7/2012 15:51:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.2218**	F **793.15**	F **-37349.**	**.00239**	**-.00309**	**18.396**	**-.00005**
Stddev	2.1862	.99	72.	.00403	.00255	.032	.00026
%RSD	26.590	.12524	.19400	168.66	82.357	.17153	500.23
#1	10.492	792.51	-37266.	.00700	-.00073	18.362	.00025
#2	8.0419	794.29	-37400.	.00070	-.00276	18.403	-.00017
#3	6.1311	792.65	-37381.	-.00052	-.00579	18.424	-.00023
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.46304**	**-.00195**	**-.00081**	**.00348**	**.00046**	F **-.12522**
Stddev	.00164	.00115	.00223	.00016	.00005	.11409
%RSD	.35519	58.868	276.86	4.4651	10.070	91.109
#1	.46276	-.00124	-.00039	.00360	.00049	-.16939
#2	.46481	-.00133	.00119	.00354	.00041	.00435
#3	.46155	-.00327	-.00321	.00330	.00050	-.21062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21317.**	**18592.**
Stddev	184.	119.
%RSD	.86165	.64072
#1	21105.	18485.
#2	21426.	18571.
#3	21421.	18721.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001605 Acquired: 2/7/2012 15:55:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00106	.50718	-.00209	.04187	.05019	-.00002	77.392
Stddev	.00029	.05225	.00156	.00031	.00009	.00002	.231
%RSD	27.638	10.302	74.946	.74712	.17623	134.17	.29885
#1	-.00078	.56047	-.00356	.04151	.05009	-.00001	77.499
#2	-.00104	.45603	-.00045	.04202	.05026	.00000	77.550
#3	-.00137	.50505	-.00225	.04208	.05022	-.00004	77.127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.00013	.00438	.00020	.59160	2.9397	.01735
Stddev	.00005	.00023	.00049	.00102	.00052	.0377	.00228
%RSD	16.509	169.02	11.293	512.51	.08831	1.2813	13.137
#1	.00024	-.00006	.00484	-.00073	.59172	2.9383	.01546
#2	.00033	.00009	.00445	.00003	.59205	2.9780	.01988
#3	.00028	.00038	.00385	.00129	.59102	2.9027	.01672
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.271	.01243	.00089	34.584	.00115	F -1200.0	-.00042
Stddev	.048	.00083	.00032	.179	.00020	18.0	.00159
%RSD	.33359	6.6424	35.582	.51742	17.055	1.4988	377.06
#1	14.235	.01237	.00087	34.693	.00137	-1214.9	-.00213
#2	14.325	.01164	.00059	34.682	.00106	-1204.9	-.00014
#3	14.253	.01329	.00122	34.378	.00101	-1180.0	.00101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001605 Acquired: 2/7/2012 15:55:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2954	F 1147.5	F -54740.	.00273	.00037	19.486	.00079
Stddev	6.0906	14.8	560.	.00210	.00155	.199	.00002
%RSD	265.34	1.2901	1.0224	76.786	417.93	1.0235	2.1132
#1	5.5136	1152.9	-55007.	.00443	.00159	19.581	.00078
#2	-4.7292	1158.9	-55116.	.00338	-.00137	19.620	.00080
#3	6.1019	1130.8	-54097.	.00039	.00089	19.257	.00081
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.57062	.00813	-.00048	.00399	.05466	.05644
Stddev	.00236	.00108	.00106	.00041	.00028	.18855
%RSD	.41344	13.241	222.64	10.238	.50415	334.04
#1	.57128	.00689	-.00075	.00354	.05477	-.06367
#2	.57258	.00885	.00069	.00434	.05486	-.04075
#3	.56801	.00864	-.00137	.00410	.05434	.27376
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21214.	18114.
Stddev	38.	248.
%RSD	.17759	1.3673
#1	21210.	18008.
#2	21179.	17938.
#3	21254.	18398.

Approved: February 08, 2012

Sample Name: L1202001606 Acquired: 2/7/2012 15:58:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.11805	-.00006	.04165	.04860	-.00002	77.511
Stddev	.00034	.03650	.00129	.00166	.00019	.00001	.138
%RSD	66.006	30.919	2089.8	3.9823	.39559	52.126	.17787
#1	-.00015	.10329	.00135	.04224	.04839	-.00001	77.661
#2	-.00056	.09124	-.00035	.04292	.04863	-.00004	77.483
#3	-.00082	.15961	-.00119	.03977	.04877	-.00002	77.390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	-.00024	.00397	.00211	.29814	2.8620	.01732
Stddev	.00008	.00012	.00038	.00045	.00161	.0343	.00047
%RSD	27.821	49.001	9.5896	21.414	.53927	1.1973	2.7183
#1	.00034	-.00038	.00431	.00206	.29920	2.8817	.01683
#2	.00020	-.00016	.00405	.00259	.29629	2.8225	.01776
#3	.00033	-.00019	.00356	.00169	.29894	2.8819	.01737
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.201	.00356	.00094	34.680	.00081	F -1116.4	.00204
Stddev	.050	.00031	.00009	.098	.00053	18.8	.00248
%RSD	.35279	8.7317	9.4439	.28164	65.549	1.6816	121.37
#1	14.246	.00327	.00084	34.792	.00020	-1137.7	.00041
#2	14.147	.00388	.00101	34.613	.00118	-1102.4	.00082
#3	14.209	.00352	.00095	34.636	.00105	-1109.1	.00489
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001606 Acquired: 2/7/2012 15:58:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.4665	F 1135.2	F -54698.	.00014	-.00248	18.647	.00012
Stddev	6.0352	2.2	59.	.00333	.00133	.029	.00010
%RSD	110.40	.19023	.10827	2449.4	53.565	.15572	90.712
#1	3.1044	1133.6	-54757.	.00315	-.00363	18.665	.00003
#2	12.326	1137.7	-54639.	.00070	-.00102	18.662	.00023
#3	.96972	1134.4	-54698.	-.00344	-.00279	18.613	.00009
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.56794	-.00055	-.00046	.00338	.02155	F -.12105
Stddev	.00212	.00108	.00132	.00023	.00012	.10962
%RSD	.37267	195.86	286.78	6.9083	.55694	90.556
#1	.57039	.00019	.00085	.00359	.02168	-.22325
#2	.56664	-.00006	-.00179	.00313	.02145	-.13462
#3	.56680	-.00179	-.00044	.00341	.02153	-.00528
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21541.	17745.
Stddev	266.	169.
%RSD	1.2347	.95406
#1	21435.	17560.
#2	21345.	17893.
#3	21844.	17783.

Approved: February 08, 2012

Sample Name: L1202001606PS Acquired: 2/7/2012 16:01:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388773-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19860	5.0954	.20044	1.0337	.53279	.02447	74.495
Stddev	.00481	.0180	.00204	.0224	.00011	.00039	.189
%RSD	2.4204	.35387	1.0166	2.1635	.02031	1.6085	.25388
#1	.20044	5.1037	.19833	1.0503	.53291	.02478	74.332
#2	.20222	5.0748	.20240	1.0425	.53274	.02461	74.451
#3	.19315	5.1079	.20058	1.0083	.53271	.02403	74.702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02531	.09835	.24729	.24808	2.2159	27.463	.50837
Stddev	.00018	.00084	.00421	.00136	.0074	.088	.00081
%RSD	.70907	.85421	1.7018	.54853	.33587	.32146	.15866
#1	.02551	.09927	.24926	.24936	2.2175	27.408	.50875
#2	.02516	.09763	.25016	.24823	2.2224	27.417	.50891
#3	.02525	.09815	.24246	.24665	2.2077	27.565	.50744
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.591	.25017	.49948	56.688	.24898	F -1034.6	.24900
Stddev	.046	.00041	.00229	.264	.00082	37.4	.00198
%RSD	.26056	.16287	.45917	.46648	.32952	3.6137	.79417
#1	17.555	.24989	.50189	56.464	.24992	-1010.5	.24886
#2	17.576	.24999	.49921	56.622	.24843	-1077.6	.25105
#3	17.643	.25064	.49733	56.980	.24859	-1015.6	.24710
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001606PS Acquired: 2/7/2012 16:01:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388773-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11.556	F 1033.8	F -49551.	.59341	.19658	19.302	.53513
Stddev	4.909	5.6	188.	.00508	.00104	.060	.00291
%RSD	42.477	.53980	.37862	.85641	.52932	.31062	.54362
#1	17.210	1040.2	-49768.	.59924	.19701	19.371	.53806
#2	9.0706	1029.7	-49439.	.59107	.19734	19.275	.53510
#3	8.3871	1031.7	-49448.	.58992	.19539	19.260	.53224
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0057	.48879	.25150	.49169	.52440	.35704
Stddev	.0036	.00178	.00357	.01008	.00198	.03010
%RSD	.35384	.36334	1.4189	2.0500	.37823	8.4294
#1	1.0024	.48856	.25249	.49852	.52558	.37165
#2	1.0052	.48715	.25446	.49642	.52552	.37704
#3	1.0095	.49068	.24754	.48011	.52211	.32243
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21344.	18191.
Stddev	174.	168.
%RSD	.81605	.92172
#1	21370.	18181.
#2	21158.	18363.
#3	21504.	18028.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001606SDL Acquired: 2/7/2012 16:05:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388773-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	-.00667	.00085	.01309	.00949	-.00004	15.679
Stddev	.00063	.02562	.00128	.00084	.00007	.00002	.087
%RSD	246.47	384.10	150.96	6.4179	.69668	56.491	.55747
#1	-.00084	-.01928	.00147	.01344	.00956	-.00004	15.677
#2	.00041	.02281	-.00063	.01370	.00946	-.00001	15.768
#3	-.00034	-.02355	.00170	.01213	.00943	-.00005	15.593
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00030	.00114	.00039	.06215	.56571	.00584
Stddev	.00014	.00023	.00026	.00061	.00788	.03977	.00152
%RSD	191.77	78.160	23.128	157.01	12.671	7.0306	26.002
#1	.00004	-.00054	.00083	-.00029	.05743	.59966	.00437
#2	-.00005	-.00007	.00131	.00056	.07124	.57551	.00575
#3	.00023	-.00028	.00127	.00089	.05779	.52195	.00740
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.9071	.00035	.00066	7.0921	-.00047	F -232.67	-.00089
Stddev	.0225	.00098	.00018	.0408	.00022	23.22	.00112
%RSD	.77495	281.12	27.004	.57572	46.434	9.9811	125.93
#1	2.8840	.00052	.00053	7.1014	-.00044	-259.29	-.00086
#2	2.9290	.00124	.00086	7.1275	-.00026	-216.55	-.00202
#3	2.9084	-.00071	.00058	7.0474	-.00070	-222.16	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001606SDL Acquired: 2/7/2012 16:05:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388773-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.6494	F 227.31	F -10799.	.00065	-.00230	3.7641	.00018
Stddev	2.4135	.86	23.	.00086	.00185	.0149	.00006
%RSD	31.552	.38024	.21736	131.14	80.139	.39474	36.373
#1	9.1659	227.38	-10775.	.00164	-.00318	3.7511	.00016
#2	8.9160	228.14	-10822.	.00020	-.00018	3.7803	.00025
#3	4.8662	226.41	-10800.	.00012	-.00355	3.7608	.00013
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11608	-.00043	-.00111	.00084	.00390	F -.18917
Stddev	.00081	.00140	.00029	.00027	.00009	.16953
%RSD	.70128	327.17	26.266	32.532	2.4066	89.619
#1	.11572	-.00173	-.00078	.00059	.00379	-.35093
#2	.11701	-.00061	-.00128	.00080	.00396	-.20377
#3	.11551	.00105	-.00129	.00113	.00395	-.01281
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21170.	18043.
Stddev	58.	124.
%RSD	.27309	.68626
#1	21184.	17900.
#2	21219.	18117.
#3	21106.	18112.

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 16:08:35 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38730	9.9704	.39051	.48783	.97718	.04801	9.8748
Stddev	.00197	.0668	.00155	.00168	.00566	.00021	.0499
%RSD	.50894	.66961	.39776	.34336	.57936	.43420	.50551
#1	.38936	9.9036	.39168	.48976	.97114	.04822	9.8209
#2	.38709	9.9707	.39109	.48705	.97804	.04800	9.8840
#3	.38544	10.037	.38875	.48670	.98237	.04780	9.9194
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04937	.19765	.48477	.49735	3.9239	49.566	.99237
Stddev	.00010	.00045	.00226	.00146	.0208	.196	.00540
%RSD	.20290	.22647	.46638	.29427	.53060	.39609	.54420
#1	.04932	.19798	.48725	.49800	3.9005	49.346	.98649
#2	.04949	.19783	.48284	.49837	3.9308	49.724	.99352
#3	.04931	.19714	.48421	.49567	3.9404	49.629	.99711
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9332	.49435	.98147	50.089	.49822	F -21.581	.49850
Stddev	.0287	.00212	.00178	.240	.00091	23.366	.00474
%RSD	.28879	.42812	.18186	.47971	.18194	108.27	.95073
#1	9.9108	.49195	.97953	49.812	.49864	-12.362	.49765
#2	9.9656	.49595	.98305	50.208	.49883	-4.2311	.50360
#3	9.9232	.49515	.98183	50.246	.49718	-48.150	.49424
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 16:08:35 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 8.4463	10.124	F 15.598	1.1827	.39358	4.8852	.99340
Stddev	6.5350	.019	.537	.0013	.00400	.0058	.00213
%RSD	77.371	.18414	3.4451	.10841	1.0158	.11784	.21474
#1	1.0965	10.103	15.884	1.1812	.39302	4.8892	.99478
#2	10.641	10.136	15.931	1.1830	.39783	4.8877	.99447
#3	13.601	10.134	14.978	1.1837	.38989	4.8786	.99094
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	-10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98559	.97623	.50533	.96370	.99393	F .71451
Stddev	.00500	.00745	.00081	.00293	.00152	.06084
%RSD	.50709	.76287	.16036	.30406	.15249	8.5151
#1	.97986	.96821	.50508	.96684	.99416	.78094
#2	.98781	.98292	.50623	.96324	.99532	.70110
#3	.98909	.97757	.50466	.96103	.99231	.66149
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20916.	17372.
Stddev	138.	187.
%RSD	.66027	1.0774
#1	20774.	17583.
#2	20923.	17226.
#3	21050.	17307.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 16:11:48 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00091	-.03506	.00041	.00275	.00021	-.00002	-.02423
Stddev	.00048	.02693	.00096	.00087	.00013	.00003	.01085
%RSD	52.134	76.814	232.47	31.628	63.108	116.74	44.798
#1	-.00145	-.06572	.00114	.00373	.00011	.00001	-.03536
#2	-.00056	-.01527	.00078	.00243	.00015	-.00004	-.02364
#3	-.00072	-.02417	-.00068	.00208	.00036	-.00004	-.01368
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	-.00018	.00047	.00085	.00146	.09487	-.00328
Stddev	.00018	.00014	.00033	.00061	.00623	.01309	.00227
%RSD	275.92	76.920	68.827	71.837	427.61	13.798	69.165
#1	.00014	-.00023	.00085	.00091	.00477	.10221	-.00503
#2	-.00019	-.00003	.00026	.00021	-.00573	.10264	-.00408
#3	-.00014	-.00029	.00032	.00144	.00533	.07976	-.00072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00611	-.00029	.00051	-.00314	-.00022	F 11.488	.00040
Stddev	.00358	.00022	.00011	.02329	.00038	19.949	.00181
%RSD	58.636	75.797	21.382	740.87	173.54	173.66	446.16
#1	.00842	-.00006	.00039	-.02637	-.00061	15.119	-.00124
#2	.00198	-.00049	.00061	.02022	-.00019	29.372	.00234
#3	.00794	-.00032	.00052	-.00328	.00015	-10.028	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 16:11:48 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 3.4208	F -.21905	F 8.5793	-.00105	-.00172	.00656	.00026
Stddev	8.3544	.09637	1.8057	.00044	.00272	.00085	.00036
%RSD	244.22	43.996	21.047	41.607	157.60	13.005	140.48
#1	4.8272	-.18782	7.2953	-.00133	-.00452	.00705	.00067
#2	10.983	-.32716	7.7986	-.00128	-.00155	.00706	.00010
#3	-5.5475	-.14216	10.644	-.00055	.00090	.00558	.00000
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	-.00065	-.00066	-.00004	-.00042	F -.18833
Stddev	.00007	.00233	.00157	.00024	.00004	.13280
%RSD	50.239	357.08	238.16	611.54	10.628	70.512
#1	.00006	.00040	-.00243	-.00031	-.00046	-.11806
#2	.00018	.00096	-.00009	.00015	-.00038	-.34150
#3	.00019	-.00332	.00055	.00004	-.00041	-.10544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21205.	17434.
Stddev	223.	80.
%RSD	1.0495	.45734
#1	21059.	17342.
#2	21095.	17479.
#3	21461.	17481.

Approved: February 08, 2012

Sample Name: L1202001607 Acquired: 2/7/2012 16:15:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00078	.04445	-.00094	.02051	.10718	-.00001	43.265
Stddev	.00061	.02359	.00102	.00077	.00099	.00000	.234
%RSD	78.303	53.058	108.06	3.7587	.92340	20.951	.53971
#1	-.00108	.06916	-.00157	.02110	.10671	-.00002	43.127
#2	-.00008	.04203	-.00148	.02080	.10651	-.00002	43.134
#3	-.00118	.02217	.00023	.01964	.10832	-.00001	43.535
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00029	.00528	.00018	.17505	2.4230	.00394
Stddev	.00002	.00009	.00054	.00046	.00209	.0496	.00252
%RSD	12.510	30.394	10.313	261.05	1.1932	2.0471	63.966
#1	.00013	-.00029	.00490	-.00028	.17342	2.3751	.00125
#2	.00016	-.00020	.00590	.00017	.17431	2.4196	.00625
#3	.00015	-.00037	.00502	.00064	.17740	2.4742	.00432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.6989	.00030	.00286	23.682	-.00030	F -1293.0	.00132
Stddev	.0403	.00022	.00009	.155	.00059	11.6	.00062
%RSD	.52337	73.375	3.1785	.65355	193.36	.89532	47.046
#1	7.6739	.00007	.00291	23.569	.00030	-1306.3	.00204
#2	7.6773	.00050	.00292	23.620	-.00033	-1287.4	.00096
#3	7.7454	.00032	.00276	23.859	-.00087	-1285.4	.00096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202001607 Acquired: 2/7/2012 16:15:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.5280**	F **453.75**	F **-20791.**	**.00069**	**.00044**	**17.283**	**.00000**
Stddev	3.7979	3.41	81.	.00189	.00172	.073	.0002
%RSD	44.534	.75161	.38844	271.89	391.64	.42320	7156.9
#1	12.320	449.81	-20703.	.00097	-.00105	17.200	.00003
#2	8.5393	455.71	-20862.	-.00132	.00005	17.340	-.00024
#3	4.7245	455.73	-20807.	.00242	.00233	17.308	.00021
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.35724**	**-.00081**	**-.00131**	**.00458**	**.00521**	F **-.22095**
Stddev	.00232	.00112	.00090	.00031	.00012	.17505
%RSD	.65040	139.38	68.785	6.7257	2.2152	79.229
#1	.35576	-.00135	-.00144	.00494	.00530	-.30981
#2	.35603	.00049	-.00035	.00445	.00524	-.33375
#3	.35991	-.00155	-.00213	.00436	.00508	-.01929
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21336.**	**17848.**
Stddev	100.	91.
%RSD	.46791	.51108
#1	21227.	17847.
#2	21423.	17940.
#3	21358.	17758.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202004401 Acquired: 2/7/2012 16:18:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	-.00305	.00163	.02895	.08162	-.00003	34.883
Stddev	.00048	.01958	.00031	.00068	.00075	.00001	.040
%RSD	142.52	642.60	19.229	2.3401	.91829	52.285	.11387
#1	-.00087	.00234	.00171	.02903	.08163	-.00004	34.848
#2	-.00017	.01328	.00129	.02959	.08237	-.00001	34.926
#3	.00004	-.02476	.00190	.02824	.08087	-.00003	34.874
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	-.00013	.00474	.00049	.01526	2.0436	.01481
Stddev	.00017	.00028	.00048	.00013	.00302	.0513	.00304
%RSD	92.545	212.50	10.206	26.541	19.768	2.5111	20.549
#1	.00013	-.00043	.00442	.00064	.01212	1.9940	.01578
#2	.00005	.00013	.00530	.00040	.01551	2.0965	.01724
#3	.00037	-.00010	.00450	.00042	.01814	2.0402	.01140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.8559	.00022	.00366	21.246	-.00013	F -58.765	.00188
Stddev	.0655	.00030	.00031	.054	.00014	16.742	.00080
%RSD	1.1189	138.57	8.3489	.25505	109.82	28.490	42.511
#1	5.8182	-.00012	.00335	21.235	-.00016	-39.811	.00252
#2	5.9316	.00030	.00397	21.305	.00003	-71.537	.00098
#3	5.8180	.00048	.00367	21.198	-.00025	-64.947	.00215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Sample Name: L1202004401 Acquired: 2/7/2012 16:18:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 13.769	F 500.66	F -23435.	.00140	-.00025	14.715	-.00015
Stddev	5.627	3.35	62.	.00089	.00039	.055	.00019
%RSD	40.868	.66879	.26301	63.631	159.06	.37103	131.33
#1	19.461	498.32	-23394.	.00038	.00016	14.668	.00007
#2	13.635	504.49	-23506.	.00202	-.00062	14.775	-.00021
#3	8.2096	499.15	-23404.	.00180	-.00029	14.703	-.00030
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.32160	-.00159	.00001	.00750	.01356	F -.20290
Stddev	.00136	.00011	.00111	.00022	.00011	.08600
%RSD	.42300	7.1691	8201.7	2.9122	.78012	42.383
#1	.32131	-.00150	.00088	.00728	.01345	-.10788
#2	.32309	-.00172	.00040	.00772	.01355	-.27538
#3	.32042	-.00156	-.00124	.00750	.01366	-.22546
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21559.	18554.
Stddev	114.	235.
%RSD	.52647	1.2666
#1	21685.	18801.
#2	21465.	18334.
#3	21528.	18526.

Approved: February 08, 2012

Sample Name: L1202004402 Acquired: 2/7/2012 16:22:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	-.03005	.00052	.01820	.07359	-.00004	74.322
Stddev	.00056	.00416	.00179	.00083	.00115	.00000	.500
%RSD	333.75	13.844	341.71	4.5509	1.5594	5.6230	.67324
#1	-.00065	-.02981	-.00153	.01725	.07380	-.00005	74.030
#2	.00045	-.03433	.00136	.01856	.07462	-.00004	74.899
#3	-.00030	-.02602	.00174	.01878	.07235	-.00005	74.036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.00017	.00338	.00058	.18742	2.8365	.01360
Stddev	.00008	.00006	.00017	.00014	.00322	.0980	.00339
%RSD	30.274	34.426	5.0307	24.522	1.7180	3.4550	24.899
#1	.00024	-.00022	.00333	.00051	.18621	2.8015	.01507
#2	.00036	-.00019	.00356	.00049	.19108	2.9472	.01601
#3	.00020	-.00010	.00324	.00074	.18499	2.7608	.00973
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.058	.00045	.00138	35.103	-.00023	F -37.659	.00007
Stddev	.234	.00031	.00016	.187	.00062	17.744	.00229
%RSD	1.7882	68.834	11.865	.53286	266.65	47.118	3466.7
#1	13.056	.00027	.00154	34.955	.00019	-41.653	-.00068
#2	13.292	.00027	.00138	35.313	.00006	-53.065	-.00176
#3	12.825	.00080	.00121	35.040	-.00095	-18.258	.00264
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202004402 Acquired: 2/7/2012 16:22:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.5276	F 1069.7	F -50685.	.00090	-.00201	17.801	.00016
Stddev	10.757	2.3	71.	.00205	.00143	.008	.00023
%RSD	142.90	.21699	.13926	228.48	70.939	.04348	145.65
#1	-1.2684	1069.0	-50604.	.00177	-.00039	17.794	-.00009
#2	4.3305	1067.7	-50718.	.00236	-.00307	17.800	.00038
#3	19.521	1072.2	-50733.	-.00144	-.00257	17.809	.00019
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.57407	-.00167	.00017	.00420	.02596	F -.20494
Stddev	.00432	.00038	.00128	.00020	.00011	.01318
%RSD	.75307	22.590	743.88	4.7022	.41860	6.4291
#1	.57176	-.00202	-.00130	.00407	.02584	-.20667
#2	.57906	-.00173	.00101	.00443	.02605	-.19098
#3	.57139	-.00127	.00081	.00410	.02600	-.21716
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21153.	18039.
Stddev	78.	173.
%RSD	.36746	.96040
#1	21074.	17943.
#2	21229.	17935.
#3	21154.	18239.

Approved: February 08, 2012

Sample Name: L1202004403 Acquired: 2/7/2012 16:25:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	-.01900	-.00136	.01970	.07232	-.00003	73.889
Stddev	.00012	.04559	.00102	.00170	.00045	.00003	.442
%RSD	19.097	239.96	75.199	8.6455	.62009	105.50	.59815
#1	-.00067	-.02096	-.00204	.02052	.07244	-.00005	73.708
#2	-.00069	.02754	-.00018	.02083	.07183	-.00005	73.566
#3	-.00048	-.06357	-.00186	.01774	.07270	.00001	74.392
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	-.00014	.00319	.00076	.17815	2.7766	.01536
Stddev	.00021	.00016	.00035	.00073	.00235	.0652	.00400
%RSD	65.689	114.94	10.853	96.035	1.3168	2.3476	26.023
#1	.00036	-.00012	.00352	.00037	.17649	2.7386	.01588
#2	.00009	-.00032	.00283	.00160	.17713	2.7394	.01908
#3	.00050	.00001	.00322	.00031	.18084	2.8519	.01113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.945	-.00046	.00147	34.764	.00038	F -36.760	.00116
Stddev	.054	.00027	.00006	.239	.00044	21.134	.00089
%RSD	.41584	59.091	3.7812	.68714	117.83	57.491	76.393
#1	12.975	-.00061	.00153	34.704	.00013	-24.678	.00137
#2	12.883	-.00015	.00146	34.561	.00089	-61.163	.00192
#3	12.977	-.00063	.00142	35.028	.00011	-24.439	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202004403 Acquired: 2/7/2012 16:25:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9.4097	F 1067.9	F -50313.	.00145	-.00115	17.673	.00011
Stddev	1.7157	11.4	477.	.00187	.00254	.116	.00001
%RSD	18.233	1.0690	.94868	128.86	221.02	.65892	10.501
#1	7.4744	1067.0	-50064.	.00304	.00098	17.644	.00010
#2	10.744	1057.0	-50011.	.00194	-.00047	17.574	.00011
#3	10.011	1079.8	-50863.	-.00062	-.00395	17.801	.00012
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.57018	-.00194	-.00096	.00385	.01971	F -.15391
Stddev	.00336	.00076	.00060	.00015	.00012	.11874
%RSD	.58937	39.142	62.712	3.8925	.58624	77.148
#1	.56933	-.00145	-.00079	.00395	.01962	-.24109
#2	.56733	-.00282	-.00162	.00392	.01966	-.20195
#3	.57389	-.00156	-.00046	.00367	.01984	-.01868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20882.	19061.
Stddev	363.	123.
%RSD	1.7388	.64774
#1	20562.	19037.
#2	20807.	19195.
#3	21277.	18952.

Approved: February 08, 2012

Sample Name: L1202004602 Acquired: 2/7/2012 16:28:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	-.01267	.00113	.30207	.18112	-.00002	111.67
Stddev	.00054	.03626	.00025	.00586	.00078	.00002	.17
%RSD	332.49	286.28	22.224	1.9399	.43026	126.11	.15594
#1	-.00004	.02199	.00129	.29695	.18075	-.00001	111.51
#2	.00031	-.00965	.00126	.30078	.18201	.00000	111.85
#3	-.00075	-.05034	.00084	.30846	.18059	-.00004	111.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00004	.00404	.19032	.29918	3.5094	.03031
Stddev	.00020	.00013	.00015	.00146	.00323	.0477	.00245
%RSD	77.066	339.02	3.6795	.76615	1.0796	1.3604	8.0860
#1	.00050	.00001	.00399	.19194	.30190	3.5301	.03084
#2	.00011	-.00008	.00392	.18993	.29561	3.5434	.03245
#3	.00018	.00018	.00421	.18910	.30002	3.4549	.02764
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.606	.12895	.00153	47.788	.00639	F -182.57	.01145
Stddev	.040	.00041	.00023	.071	.00050	14.49	.00117
%RSD	.25614	.31905	14.722	.14904	7.8181	7.9363	10.232
#1	15.567	.12849	.00179	47.707	.00689	-171.78	.01015
#2	15.604	.12927	.00142	47.844	.00639	-199.04	.01242
#3	15.647	.12909	.00138	47.812	.00589	-176.89	.01179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Sample Name: L1202004602 Acquired: 2/7/2012 16:28:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.8466**	F **631.39**	F **-26316.**	**.00140**	**-.00420**	**10.798**	**.00298**
Stddev	3.6438	9.07	146.	.00156	.00118	.069	.00072
%RSD	41.188	1.4364	.55468	111.75	28.028	.63820	24.039
#1	5.5890	641.76	-26480.	.00260	-.00293	10.877	.00373
#2	12.782	627.43	-26269.	.00195	-.00442	10.768	.00291
#3	8.1693	624.97	-26200.	-.00037	-.00525	10.750	.00231
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.62185**	**-.00424**	**-.00076**	**.00087**	**.05311**	F **-.35933**
Stddev	.00115	.00168	.00209	.00027	.00029	.13185
%RSD	.18524	39.651	276.85	30.934	.54392	36.694
#1	.62063	-.00230	-.00275	.00096	.05341	-.40889
#2	.62292	-.00508	-.00095	.00109	.05283	-.20988
#3	.62201	-.00532	.00143	.00057	.05310	-.45921
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21019.**	**17881.**
Stddev	79.	262.
%RSD	.37602	1.4628
#1	21088.	17612.
#2	21038.	17894.
#3	20933.	18135.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202004604 Acquired: 2/7/2012 16:32:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	-.04144	.00188	.30501	.18317	-.00001	113.91
Stddev	.00041	.02547	.00112	.00009	.00119	.00001	.59
%RSD	152.36	61.460	59.288	.03087	.64859	109.15	.52018
#1	-.00074	-.07082	.00315	.30490	.18201	-.00001	113.44
#2	.00000	-.02784	.00105	.30508	.18438	-.00002	114.57
#3	-.00007	-.02566	.00145	.30504	.18312	.00000	113.71
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00008	.00338	.00110	.28182	3.5572	.02711
Stddev	.00011	.00010	.00026	.00022	.00174	.0379	.00188
%RSD	51.296	126.01	7.8308	20.220	.61855	1.0648	6.9332
#1	.00010	.00015	.00313	.00116	.27981	3.5143	.02920
#2	.00032	.00013	.00334	.00085	.28281	3.5713	.02660
#3	.00025	-.00004	.00366	.00128	.28284	3.5859	.02554
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.834	.12799	.00147	48.990	.00144	F -137.86	.00044
Stddev	.133	.00167	.00016	.218	.00048	37.52	.00107
%RSD	.83980	1.3025	10.742	.44458	33.512	27.219	242.10
#1	15.777	.12705	.00145	48.863	.00089	-180.84	-.00079
#2	15.986	.12991	.00164	49.241	.00179	-121.11	.00102
#3	15.739	.12700	.00132	48.865	.00164	-111.63	.00110
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202004604 Acquired: 2/7/2012 16:32:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.730	F 645.74	F -27054.	.00136	-.00246	11.083	.00161
Stddev	3.087	3.73	95.	.00201	.00287	.045	.00042
%RSD	28.770	.57800	.35064	147.75	116.93	.40507	26.013
#1	14.293	642.75	-26947.	.00247	-.00105	11.033	.00189
#2	8.8512	649.93	-27088.	.00258	-.00576	11.120	.00180
#3	9.0462	644.55	-27128.	-.00096	-.00056	11.097	.00113
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.63328	-.00424	-.00002	.00089	.00360	F -.25199
Stddev	.00345	.00087	.00070	.00027	.00008	.07218
%RSD	.54513	20.634	4336.2	29.928	2.1918	28.644
#1	.63109	-.00394	-.00069	.00093	.00369	-.28776
#2	.63726	-.00355	-.00006	.00061	.00354	-.29930
#3	.63149	-.00522	.00070	.00114	.00357	-.16891
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20936.	17864.
Stddev	85.	135.
%RSD	.40665	.75336
#1	20864.	17863.
#2	20914.	17729.
#3	21030.	17999.

Approved: February 08, 2012

Sample Name: L1202004605 Acquired: 2/7/2012 16:35:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00075	-.01281	.00148	.34824	.17954	-.00004	108.83
Stddev	.00079	.04056	.00125	.00062	.00034	.00001	.27
%RSD	104.60	316.49	84.263	.17908	.18991	14.832	.24881
#1	-.00115	.01453	.00288	.34765	.17994	-.00003	108.58
#2	-.00126	.00644	.00051	.34890	.17938	-.00004	109.12
#3	.00015	-.05941	.00104	.34819	.17931	-.00003	108.80
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	-.00017	.00296	.00118	.05698	3.3745	.03447
Stddev	.00005	.00009	.00001	.00069	.00320	.0157	.00118
%RSD	20.794	50.264	.37527	58.719	5.6229	.46371	3.4109
#1	.00018	-.00025	.00297	.00195	.06068	3.3824	.03312
#2	.00023	-.00008	.00295	.00099	.05510	3.3846	.03500
#3	.00028	-.00018	.00296	.00061	.05516	3.3564	.03528
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.464	.00041	.00156	48.105	.00073	F -84.437	.00135
Stddev	.064	.00043	.00030	.141	.00017	35.815	.00286
%RSD	.41412	103.66	18.955	.29360	23.417	42.416	212.18
#1	15.430	.00081	.00140	47.969	.00067	-71.049	-.00061
#2	15.538	-.00004	.00190	48.251	.00059	-57.245	.00002
#3	15.425	.00047	.00137	48.095	.00092	-125.02	.00464
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202004605 Acquired: 2/7/2012 16:35:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.4897	F 626.62	F -26361.	-.00127	-.00083	10.840	-.00005
Stddev	4.1731	.87	127.	.00028	.00201	.042	.00047
%RSD	76.016	.13833	.48036	22.164	241.18	.38773	948.27
#1	9.7363	627.61	-26312.	-.00111	-.00049	10.822	-.00055
#2	1.3943	626.28	-26267.	-.00110	-.00300	10.810	.00037
#3	5.3386	625.98	-26505.	-.00159	.00099	10.888	.00003
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.62770	-.00371	.00033	.00043	.00527	F -.21924
Stddev	.00165	.00145	.00019	.00047	.00006	.22507
%RSD	.26261	39.169	58.353	108.40	1.1019	102.66
#1	.62581	-.00529	.00014	.00031	.00528	-.02525
#2	.62882	-.00343	.00033	.00004	.00532	-.46601
#3	.62848	-.00242	.00053	.00095	.00520	-.16644
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20596.	17813.
Stddev	9.	72.
%RSD	.04298	.40696
#1	20603.	17733.
#2	20599.	17833.
#3	20586.	17874.

Approved: February 08, 2012

Sample Name: L1202004607 Acquired: 2/7/2012 16:38:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.00455	.00378	.32236	.19254	-.00002	119.28
Stddev	.00039	.03636	.00132	.00101	.00025	.00001	.32
%RSD	2466.4	799.38	34.828	.31237	.12857	30.245	.27148
#1	.00034	-.02418	.00369	.32238	.19257	-.00002	119.39
#2	-.00043	-.00760	.00515	.32134	.19228	-.00003	118.91
#3	.00004	.04542	.00252	.32336	.19277	-.00001	119.53
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	-.00005	.00509	.00183	.57046	3.5992	.03277
Stddev	.00009	.00010	.00020	.00014	.00605	.0196	.00243
%RSD	51.538	213.35	3.9006	7.4155	1.0608	.54366	7.4027
#1	.00026	.00004	.00486	.00194	.56551	3.6202	.03120
#2	.00016	-.00016	.00520	.00187	.57721	3.5816	.03154
#3	.00009	-.00003	.00522	.00168	.56865	3.5957	.03556
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.187	.19745	.00165	50.328	.00067	F -173.43	.00097
Stddev	.021	.00062	.00005	.097	.00017	13.93	.00126
%RSD	.12666	.31648	3.2959	.19348	26.113	8.0344	130.69
#1	16.167	.19817	.00159	50.419	.00054	-160.63	.00166
#2	16.184	.19703	.00165	50.225	.00087	-188.27	-.00049
#3	16.208	.19716	.00170	50.339	.00060	-171.39	.00173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202004607 Acquired: 2/7/2012 16:38:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.6163	F 665.90	F -27540.	.00128	-.00118	11.419	.00268
Stddev	14.099	2.38	65.	.00130	.00217	.025	.00015
%RSD	185.12	.35672	.23526	101.56	183.47	.21483	5.4891
#1	-2.3594	663.74	-27525.	.00029	-.00013	11.406	.00261
#2	1.4619	668.44	-27610.	.00079	-.00368	11.448	.00257
#3	23.746	665.51	-27483.	.00275	.00026	11.405	.00284
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.65505	-.00423	-.00064	.00067	.00384	F -.27206
Stddev	.00149	.00105	.00114	.00021	.00017	.17774
%RSD	.22808	24.742	177.58	30.569	4.3412	65.331
#1	.65539	-.00496	-.00141	.00044	.00368	-.12920
#2	.65341	-.00303	-.00118	.00084	.00384	-.47110
#3	.65634	-.00471	.00067	.00074	.00401	-.21587
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20356.	17996.
Stddev	88.	375.
%RSD	.43413	2.0856
#1	20422.	17578.
#2	20390.	18305.
#3	20255.	18103.

Approved: February 08, 2012

Sample Name: L1202004608 Acquired: 2/7/2012 16:42:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	-.02881	.00021	.32102	.10483	-.00004	113.52
Stddev	.00038	.03785	.00112	.00333	.00008	.00002	.30
%RSD	195.66	131.37	529.96	1.0377	.07215	66.263	.26536
#1	-.00028	-.03476	.00122	.31719	.10482	-.00004	113.86
#2	.00022	.01166	-.00099	.32320	.10477	-.00001	113.37
#3	-.00054	-.06334	.00040	.32268	.10491	-.00006	113.32
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	-.00013	.00457	.00081	.03206	2.5973	.01991
Stddev	.00015	.00008	.00036	.00046	.00377	.0394	.00178
%RSD	79.594	61.676	7.9599	56.810	11.754	1.5175	8.9577
#1	.00024	-.00023	.00487	.00107	.03556	2.5671	.01860
#2	.00029	-.00009	.00416	.00108	.02807	2.5828	.01918
#3	.00002	-.00008	.00468	.00028	.03255	2.6419	.02194
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.6790	.00077	.00050	45.728	.00121	F -138.24	.00047
Stddev	.0157	.00032	.00005	.125	.00066	53.90	.00142
%RSD	.23430	41.341	10.690	.27268	54.599	38.989	299.09
#1	6.6767	.00055	.00051	45.864	.00045	-121.66	.00202
#2	6.6957	.00114	.00045	45.702	.00161	-94.581	.00018
#3	6.6646	.00063	.00056	45.618	.00157	-198.48	-.00077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202004608 Acquired: 2/7/2012 16:42:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.779	F 505.50	F -19696.	.00065	-.00265	13.496	.00003
Stddev	3.318	.87	71.	.00068	.00157	.037	.00020
%RSD	25.969	.17113	.36104	103.37	59.291	.27085	694.68
#1	16.361	506.48	-19772.	.00097	-.00096	13.534	-.00019
#2	12.165	505.16	-19684.	.00111	-.00294	13.494	.00007
#3	9.8100	504.86	-19632.	-.00012	-.00407	13.461	.00021
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24951	-.00379	-.00024	.01028	.00881	F -.15011
Stddev	.00100	.00075	.00032	.00017	.00009	.15619
%RSD	.39973	19.935	134.59	1.6562	.96502	104.05
#1	.25064	-.00443	-.00005	.01028	.00871	-.27049
#2	.24913	-.00397	-.00006	.01045	.00888	.02639
#3	.24875	-.00296	-.00061	.01011	.00884	-.20623
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21085.	19152.
Stddev	335.	324.
%RSD	1.5900	1.6896
#1	21442.	19522.
#2	21034.	19016.
#3	20778.	18919.

Approved: February 08, 2012

Sample Name: L1202004609 Acquired: 2/7/2012 16:45:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	-.02208	-.00007	.31206	.10756	-.00002	116.48
Stddev	.00049	.00805	.00027	.00197	.00035	.00001	.34
%RSD	173.88	36.463	409.29	.63260	.32527	51.522	.29269
#1	-.00080	-.01543	.00016	.31210	.10759	-.00002	116.21
#2	.00017	-.03103	-.00036	.31006	.10790	-.00001	116.35
#3	-.00022	-.01978	.00001	.31401	.10720	-.00003	116.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.00021	.00189	.00026	.02000	2.6926	.02167
Stddev	.00003	.00024	.00019	.00018	.00177	.0440	.00185
%RSD	48.074	116.36	9.8417	68.550	8.8447	1.6340	8.5239
#1	.00005	-.00029	.00207	.00036	.02184	2.6700	.02129
#2	.00010	.00006	.00170	.00037	.01987	2.7433	.02368
#3	.00005	-.00040	.00190	.00005	.01830	2.6644	.02005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.9389	.00030	.00020	47.377	-.00030	F -162.38	.00111
Stddev	.0044	.00014	.00012	.131	.00034	24.90	.00168
%RSD	.06379	46.507	61.421	.27635	111.97	15.337	151.39
#1	6.9342	.00020	.00017	47.326	-.00035	-190.19	-.00082
#2	6.9395	.00023	.00009	47.279	-.00061	-142.14	.00190
#3	6.9430	.00046	.00033	47.526	.00006	-154.80	.00225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202004609 Acquired: 2/7/2012 16:45:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.3062**	F **518.73**	F **-20428.**	**.00180**	**.00178**	**13.937**	**.00002**
Stddev	5.2060	3.65	80.	.00157	.00172	.070	.00015
%RSD	82.554	.70455	.39132	87.221	96.729	.50557	825.04
#1	6.1194	514.51	-20336.	.00010	.00156	13.856	.00001
#2	1.1961	520.95	-20485.	.00211	.00361	13.974	.00017
#3	11.603	520.73	-20462.	.00319	.00018	13.982	-.00013
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.25731**	**-.00374**	**-.00016**	**.00985**	**-.00074**	F **-.28121**
Stddev	.00068	.00156	.00124	.00027	.00013	.11222
%RSD	.26505	41.661	753.78	2.7515	17.245	39.907
#1	.25730	-.00416	-.00152	.00983	-.00073	-.38772
#2	.25664	-.00202	.00092	.00959	-.00088	-.29186
#3	.25800	-.00505	.00010	.01013	-.00062	-.16404
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21419.**	**18033.**
Stddev	79.	36.
%RSD	.37039	.19995
#1	21328.	18074.
#2	21476.	18005.
#3	21452.	18019.

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 16:48:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39062	9.8717	.39197	.49172	.97192	.04820	9.7877
Stddev	.00144	.0667	.00201	.00311	.00387	.00015	.0464
%RSD	.36961	.67612	.51362	.63261	.39829	.31400	.47428
#1	.39158	9.7964	.39428	.49519	.96971	.04835	9.7379
#2	.38896	9.8952	.39103	.48918	.97639	.04805	9.8299
#3	.39131	9.9235	.39060	.49080	.96965	.04819	9.7952
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04925	.19749	.48342	.49640	3.8794	49.297	.98866
Stddev	.00015	.00137	.00348	.00200	.0269	.195	.00725
%RSD	.31446	.69292	.72043	.40340	.69316	.39625	.73351
#1	.04929	.19777	.48678	.49618	3.8540	49.105	.98146
#2	.04937	.19870	.47983	.49850	3.9076	49.496	.99596
#3	.04907	.19600	.48365	.49451	3.8767	49.290	.98855
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.8025	.48942	.97506	49.921	.49563	F 4.5506	.49476
Stddev	.0574	.00215	.00043	.274	.00145	24.546	.00037
%RSD	.58528	.43911	.04391	.54976	.29195	539.40	.07528
#1	9.7481	.48701	.97542	49.607	.49645	-21.872	.49498
#2	9.8625	.49113	.97458	50.118	.49648	26.644	.49433
#3	9.7970	.49012	.97516	50.036	.49396	8.8797	.49497
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 16:48:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11.502	10.036	F 15.047	1.1843	.39797	4.9008	.98716
Stddev	6.697	.066	2.292	.0053	.00101	.0092	.00341
%RSD	58.225	.65732	15.235	.44643	.25419	.18806	.34545
#1	11.663	10.109	12.763	1.1892	.39740	4.9097	.99087
#2	18.117	10.018	15.029	1.1850	.39914	4.9012	.98646
#3	4.7260	9.9806	17.348	1.1787	.39738	4.8913	.98416
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98444	.97220	.50060	.96901	.98567	F .68740
Stddev	.00503	.00520	.00404	.00405	.00175	.15105
%RSD	.51045	.53527	.80653	.41762	.17736	21.974
#1	.97895	.96682	.50524	.97209	.98581	.85774
#2	.98881	.97721	.49861	.96443	.98735	.63473
#3	.98556	.97257	.49794	.97052	.98386	.56974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21755.	18704.
Stddev	109.	142.
%RSD	.50320	.75823
#1	21818.	18658.
#2	21628.	18590.
#3	21818.	18863.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 16:52:07 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00087	.01291	-.00035	.00320	-.00005	-.00004	-.01011
Stddev	.00005	.00927	.00140	.00071	.00034	.00002	.00225
%RSD	5.7349	71.824	403.64	22.281	624.42	68.506	22.299
#1	-.00088	.01063	.00127	.00354	.00032	-.00005	-.00766
#2	-.00092	.02312	-.00121	.00367	-.00033	-.00005	-.01055
#3	-.00082	.00500	-.00109	.00238	-.00015	-.00001	-.01210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.00005	.00065	.00108	.00219	.01077	.00648
Stddev	.00014	.00013	.00035	.00063	.00127	.03614	.00328
%RSD	93.533	285.82	53.758	58.348	57.751	335.47	50.630
#1	-.00031	.00002	.00060	.00049	.00361	-.02569	.00830
#2	-.00013	-.00007	.00033	.00174	.00178	.04659	.00845
#3	-.00002	.00019	.00102	.00100	.00119	.01142	.00269
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00433	-.00021	.00061	-.01380	-.00042	F 2.6832	-.00009
Stddev	.00947	.00018	.00004	.01620	.00006	37.000	.00146
%RSD	218.56	87.164	6.7421	117.39	14.939	1379.0	1628.4
#1	-.00311	-.00001	.00056	-.02168	-.00038	-14.039	.00156
#2	-.01435	-.00026	.00064	-.02457	-.00049	45.093	-.00122
#3	.00447	-.00036	.00063	.00483	-.00038	-23.004	-.00061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 16:52:07 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .69171	F -.31024	F 12.789	.00128	-.00245	.00527	.00073
Stddev	10.377	.03412	2.603	.00144	.00064	.00085	.00031
%RSD	1500.2	10.999	20.356	112.19	26.229	16.064	42.330
#1	-8.8564	-.27084	15.792	.00078	-.00287	.00602	.00067
#2	11.735	-.32997	11.179	.00016	-.00276	.00435	.00046
#3	-.80366	-.32993	11.395	.00290	-.00171	.00543	.00107
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00006	-.00041	-.00016	-.00033	-.07349
Stddev	.00006	.00109	.00117	.00013	.00004	.11434
%RSD	55.717	1766.8	288.23	81.723	11.151	155.58
#1	.00014	.00128	-.00089	-.00009	-.00036	-.19811
#2	.00016	-.00028	.00093	-.00032	-.00029	.02658
#3	.00004	-.00082	-.00126	-.00008	-.00035	-.04895
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21451.	18248.
Stddev	83.	257.
%RSD	.38597	1.4100
#1	21358.	18077.
#2	21515.	18122.
#3	21480.	18544.

Approved: February 08, 2012

Sample Name: L1202005801 Acquired: 2/7/2012 16:55:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00102	.27386	.00357	.02433	.22964	.00007	13.767
Stddev	.00020	.02355	.00224	.00051	.00061	.00000	.043
%RSD	19.986	8.5996	62.776	2.0827	.26717	2.5115	.31253
#1	-.00105	.24668	.00187	.02374	.22961	.00006	13.756
#2	-.00121	.28671	.00273	.02464	.23027	.00007	13.815
#3	-.00080	.28820	.00611	.02460	.22905	.00007	13.731
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.00053	.00208	-.00005	.00089	44.693	1.4726	-.00005
Stddev	.00007	.00016	.00044	.00038	.150	.0348	.00213
%RSD	13.706	7.5739	846.79	42.714	.33636	2.3609	4692.1
#1	-.00061	.00196	-.00050	.00057	44.685	1.4430	.00150
#2	-.00047	.00202	-.00005	.00131	44.848	1.5109	-.00248
#3	-.00052	.00226	.00039	.00079	44.547	1.4638	.00085
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	16.200						
Low Limit	-.00050						

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.0274	.98710	-.00036	35.393	.00048	F -1251.6	.00170
Stddev	.0261	.00266	.00013	.112	.00070	18.1	.00065
%RSD	.43345	.26922	37.450	.31568	144.15	1.4460	37.986
#1	6.0096	.98554	-.00049	35.346	.00120	-1234.1	.00243
#2	6.0574	.99017	-.00036	35.521	-.00020	-1250.5	.00150
#3	6.0151	.98559	-.00022	35.313	.00045	-1270.3	.00118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202005801 Acquired: 2/7/2012 16:55:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 14.335	F 353.01	F -17564.	.00194	-.00247	7.4226	.00038
Stddev	5.829	3.12	30.	.00245	.00139	.0211	.00042
%RSD	40.661	.88382	.16979	125.87	56.438	.28393	110.07
#1	12.367	356.55	-17589.	.00105	-.00102	7.4469	.00083
#2	9.7452	351.81	-17572.	.00471	-.00380	7.4118	.00001
#3	20.893	350.66	-17531.	.00007	-.00258	7.4092	.00030
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08771	.00447	.00001	.00049	.00542	F -1.6483
Stddev	.00039	.00121	.00130	.00042	.00003	.0478
%RSD	.44562	27.115	15511.	85.857	.55368	2.9027
#1	.08728	.00526	.00151	.00098	.00543	-1.6334
#2	.08804	.00507	-.00070	.00029	.00538	-1.7018
#3	.08780	.00307	-.00079	.00021	.00544	-1.6096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21752.	18294.
Stddev	62.	85.
%RSD	.28719	.46216
#1	21732.	18246.
#2	21821.	18244.
#3	21701.	18391.

Approved: February 08, 2012

Sample Name: L1202005802 Acquired: 2/7/2012 16:58:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.20559	.00147	.02371	.23178	.00005	13.954
Stddev	.00063	.00537	.00219	.00105	.00224	.00003	.111
%RSD	1398.6	2.6115	148.82	4.4231	.96699	63.427	.79384
#1	.00075	.20457	.00322	.02377	.22921	.00009	13.829
#2	-.00015	.20080	.00217	.02473	.23278	.00002	14.039
#3	-.00046	.21140	-.00098	.02264	.23335	.00005	13.994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.00052	.00221	-.00022	.00093	45.387	1.4682	.00206
Stddev	.00007	.00019	.00018	.00054	.386	.0204	.00246
%RSD	12.813	8.5571	79.779	58.779	.85083	1.3908	119.38
#1	-.00053	.00239	-.00002	.00031	44.950	1.4467	.00450
#2	-.00058	.00223	-.00031	.00135	45.529	1.4874	.00208
#3	-.00045	.00202	-.00035	.00111	45.682	1.4704	-.00041
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	16.200						
Low Limit	-.00050						

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.0643	1.0004	-.00034	35.933	.00082	F -1654.8	.00248
Stddev	.0559	.0085	.00017	.248	.00055	28.0	.00066
%RSD	.92232	.84836	48.641	.69013	67.595	1.6941	26.518
#1	6.0006	.99071	-.00051	35.651	.00018	-1623.0	.00276
#2	6.1053	1.0039	-.00018	36.118	.00113	-1676.0	.00295
#3	6.0871	1.0066	-.00033	36.030	.00114	-1665.4	.00173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Sample Name: L1202005802 Acquired: 2/7/2012 16:58:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9.4624	F 367.69	F -18183.	.00040	.00031	7.5211	.00025
Stddev	3.0889	2.40	96.	.00148	.00316	.0331	.00019
%RSD	32.644	.65339	.53002	367.20	1004.9	.43953	77.402
#1	6.1722	368.91	-18218.	.00175	-.00167	7.5391	.00022
#2	9.9148	364.92	-18074.	.00064	.00396	7.4830	.00008
#3	12.300	369.24	-18257.	-.00118	-.00134	7.5413	.00046
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08946	.00250	.00098	.00088	.00392	F -1.5956
Stddev	.00068	.00174	.00100	.00023	.00000	.1652
%RSD	.75635	69.485	102.17	26.062	.03737	10.354
#1	.08868	.00414	.00000	.00113	.00392	-1.5946
#2	.08983	.00068	.00093	.00069	.00393	-1.7613
#3	.08986	.00267	.00200	.00081	.00392	-1.4309
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21906.	18491.
Stddev	103.	107.
%RSD	.46850	.57610
#1	21812.	18554.
#2	21889.	18368.
#3	22015.	18552.

Approved: February 08, 2012

Erin D. Long

Sample Name: ICSA Acquired: 2/7/2012 17:02:16 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00070	248.18	-.00338	.05721	.00029	-.00005	246.29
Stddev	.00043	.57	.00338	.00099	.00012	.00003	.76
%RSD	61.061	.22900	99.835	1.7334	41.804	63.062	.30908
#1	-.00047	248.80	-.00716	.05609	.00038	-.00007	247.15
#2	-.00044	248.07	-.00232	.05757	.00034	-.00002	245.99
#3	-.00120	247.68	-.00067	.05796	.00015	-.00005	245.72
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	-.00008	.00088	-.00015	95.838	-.01379	.01701
Stddev	.00004	.00024	.00039	.00099	.236	.04881	.00276
%RSD	38.377	299.30	44.406	678.95	.24618	353.93	16.241
#1	.00013	-.00035	.00069	.00081	96.101	-.05223	.01387
#2	.00006	-.00001	.00132	-.00008	95.768	-.03028	.01907
#3	.00009	.00012	.00062	-.00116	95.645	.04113	.01809
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	241.43	-.00133	-.00034	.04609	-.00032	F 797.03	-.00122
Stddev	1.17	.00062	.00021	.00985	.00012	27.07	.00109
%RSD	.48503	46.979	61.739	21.368	38.296	3.3962	89.275
#1	242.65	-.00186	-.00057	.05654	-.00029	810.96	-.00002
#2	241.33	-.00064	-.00026	.04473	-.00045	814.30	-.00214
#3	240.32	-.00148	-.00017	.03699	-.00021	765.83	-.00151
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.50000	
Low Limit						-.50000	

Approved: February 08, 2012

Sample Name: ICSA Acquired: 2/7/2012 17:02:16 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 14.993	F 236.97	F 26.257	-.00584	-.00238	.23872	.00059
Stddev	5.530	.42	1.921	.00263	.00142	.00218	.00021
%RSD	36.885	.17662	7.3148	44.944	59.759	.91244	35.031
#1	18.270	237.32	27.086	-.00531	-.00395	.23876	.00036
#2	8.6078	237.08	24.061	-.00869	-.00118	.24087	.00074
#3	18.100	236.50	27.624	-.00352	-.00201	.23652	.00069
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.04000	.04000	.04000				
Low Limit	-.04000	-.04000	-.04000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00374	-.00788	.00223	-.00065	-.00023	F -3.4514
Stddev	.00025	.00067	.00064	.00025	.00003	.0821
%RSD	6.7198	8.4605	28.804	38.208	11.061	2.3800
#1	.00345	-.00794	.00227	-.00090	-.00025	-3.4804
#2	.00385	-.00851	.00157	-.00064	-.00023	-3.5152
#3	.00391	-.00718	.00286	-.00041	-.00020	-3.3587
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20432.	18567.
Stddev	36.	144.
%RSD	.17576	.77690
#1	20432.	18469.
#2	20396.	18498.
#3	20468.	18732.

Approved: February 08, 2012

Sample Name: ICSAB Acquired: 2/7/2012 17:05:34 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50026	247.81	.24413	.03644	.24434	.25060	246.08
Stddev	.00383	.61	.00174	.00037	.00084	.00265	.48
%RSD	.76544	.24663	.71175	1.0063	.34294	1.0582	.19356
#1	.49954	248.48	.24213	.03649	.24528	.24960	246.60
#2	.49684	247.67	.24522	.03605	.24408	.24860	246.00
#3	.50440	247.28	.24504	.03677	.24366	.25361	245.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45407	.23756	.24895	.24673	95.890	4.9530	.01798
Stddev	.00070	.00066	.00261	.00115	.328	.0996	.00302
%RSD	.15480	.27760	1.0468	.46687	.34162	2.0109	16.809
#1	.45329	.23698	.24862	.24585	96.246	4.9860	.01465
#2	.45428	.23740	.24652	.24629	95.823	4.8411	.02054
#3	.45465	.23828	.25170	.24803	95.601	5.0320	.01875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	240.76	.23691	-.00040	5.1172	.48327	F 783.28	.48293
Stddev	.27	.00062	.00047	.0185	.00202	27.03	.00245
%RSD	.11237	.26008	115.97	.36200	.41804	3.4513	.50797
#1	241.06	.23706	-.00062	5.1295	.48124	809.61	.48055
#2	240.71	.23623	-.00072	5.0959	.48328	784.66	.48277
#3	240.53	.23743	.00013	5.1263	.48528	755.59	.48545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.50000	
Low Limit						-.50000	

Approved: February 08, 2012

Erin D. Long

Sample Name: ICSAB Acquired: 2/7/2012 17:05:34 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.563	F 239.00	F 27.584	.48418	.23684	.01161	.00047
Stddev	5.039	.39	3.256	.00384	.00292	.00203	.00007
%RSD	47.703	.16323	11.803	.79367	1.2343	17.476	14.781
#1	14.737	238.70	28.719	.48672	.23673	.00938	.00041
#2	4.9652	238.87	23.913	.47976	.23397	.01335	.00047
#3	11.988	239.44	30.120	.48607	.23981	.01210	.00055
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.60000	.60000	.60000				
Low Limit	.40000	.40000	.40000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00323	-.00788	.45920	.24901	.49144	F -3.8712
Stddev	.00016	.00054	.00147	.00157	.00114	.1092
%RSD	4.8238	6.8365	.31985	.63049	.23190	2.8214
#1	.00338	-.00823	.46074	.24809	.49104	-3.9520
#2	.00324	-.00815	.45781	.24812	.49056	-3.7469
#3	.00307	-.00726	.45906	.25083	.49273	-3.9147
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	19831.	18187.
Stddev	131.	162.
%RSD	.66060	.89190
#1	19959.	18366.
#2	19836.	18049.
#3	19697.	18148.

Approved: February 08, 2012

Sample Name: LLICV Acquired: 2/7/2012 17:08:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00949	.01302	.00004	.00070	.01089	.00185	-.00665
Stddev	.00031	.00568	.00038	.00009	.00010	.00002	.02444
%RSD	3.3026	43.651	1058.9	12.752	.95542	1.1323	367.62
#1	.00921	.01929	.00034	.00062	.01086	.00187	.01192
#2	.00983	.00821	.00015	.00070	.01080	.00183	.00248
#3	.00943	.01156	-.00038	.00080	.01100	.00186	-.03434
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00961	.02061	.02093	.02540	.01587	.05388	-.00057
Stddev	.00005	.00035	.00051	.00048	.01122	.05510	.00135
%RSD	.50430	1.6999	2.4394	1.8917	70.693	102.27	239.36
#1	.00956	.02055	.02071	.02528	.00328	.11658	-.00128
#2	.00965	.02029	.02057	.02499	.01951	.01318	-.00141
#3	.00961	.02099	.02151	.02593	.02481	.03187	.00100
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02286	.01112	.00004	.51489	.41892	10.844	.00074
Stddev	.01511	.00061	.00007	.01471	.00063	19.125	.00068
%RSD	66.121	5.4758	189.34	2.8567	.15094	176.37	92.711
#1	.00784	.01046	.00002	.51339	.41935	-6.3300	.00034
#2	.02267	.01124	.00011	.53029	.41819	7.4074	.00152
#3	.03806	.01165	-.00002	.50098	.41922	31.453	.00034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: LLICV Acquired: 2/7/2012 17:08:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.9369	F -.28674	F 12.661	.00114	-.00160	.00388	.00000
Stddev	9.7221	.02971	2.856	.00200	.00541	.00075	.00042
%RSD	246.95	10.363	22.557	175.59	338.25	19.389	8744.3
#1	12.613	-.25919	12.721	-.00116	.00272	.00376	-.00039
#2	5.7689	-.28280	9.7753	.00243	.00015	.00468	-.00004
#3	-6.5708	-.31823	15.486	.00215	-.00767	.00319	.00045
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	-.00072	.00048	.01087	.02107	F -.16177
Stddev	.00011	.00074	.00006	.00025	.00012	.12200
%RSD	35.957	102.20	12.165	2.3239	.58814	75.419
#1	.00023	-.00156	.00052	.01104	.02096	-.29726
#2	.00043	-.00017	.00041	.01099	.02104	-.06061
#3	.00025	-.00043	.00050	.01058	.02120	-.12744
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21509.	17431.
Stddev	176.	223.
%RSD	.81749	1.2814
#1	21567.	17606.
#2	21649.	17507.
#3	21312.	17180.

Approved: February 08, 2012

Sample Name: LLICV Acquired: 2/7/2012 17:12:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	-.01558	.00049	-.00025	-.00007	-.00002	-.02113
Stddev	.00025	.01739	.00119	.00009	.00029	.00003	.00770
%RSD	47.229	111.65	242.58	36.730	394.24	125.29	36.427
#1	-.00081	-.03462	.00040	-.00015	.00026	-.00005	-.02527
#2	-.00036	-.01159	.00173	-.00025	-.00020	.00001	-.02588
#3	-.00041	-.00053	-.00065	-.00033	-.00028	-.00002	-.01225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	-.00013	.00026	.00065	.00253	-.02243	.00198
Stddev	.00009	.00023	.00027	.00023	.00129	.03136	.00092
%RSD	1285.2	177.93	103.75	35.917	51.018	139.80	46.400
#1	.00008	-.00038	.00032	.00047	.00285	-.04681	.00105
#2	-.00010	.00008	-.00004	.00056	.00363	-.03344	.00289
#3	.00000	-.00009	.00048	.00091	.00111	.01295	.00201
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00506	-.00068	.00002	-.02961	.04243	F -34.039	-.00061
Stddev	.00612	.00090	.00011	.01623	.00041	29.436	.00161
%RSD	121.09	132.21	427.34	54.823	.96664	86.479	262.99
#1	-.00083	-.00105	.00001	-.03625	.04203	-1.5940	-.00009
#2	-.01208	.00035	-.00007	-.04147	.04241	-41.486	-.00241
#3	-.00227	-.00133	.00014	-.01111	.04285	-59.036	.00067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: LLICV Acquired: 2/7/2012 17:12:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.5345**	F **-.28526**	F **11.292**	**-.00035**	**-.00169**	**.00534**	**-.00004**
Stddev	5.4093	.03377	2.001	.00119	.00119	.00007	.00020
%RSD	119.29	11.837	17.716	337.03	70.138	1.2210	567.82
#1	.15375	-.30787	11.610	.00071	-.00232	.00527	.00020
#2	2.8691	-.30147	13.115	-.00163	-.00032	.00536	-.00015
#3	10.581	-.24645	9.1517	-.00013	-.00242	.00539	-.00015
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**-.00058**	**-.00009**	**-.00028**	**-.00077**	F **-.14291**
Stddev	.00005	.00074	.00025	.00021	.00003	.18315
%RSD	139.57	127.80	275.19	74.014	4.1414	128.16
#1	-.00001	-.00077	.00009	-.00052	-.00073	.06776
#2	.00009	.00024	-.00037	-.00013	-.00079	-.23211
#3	.00003	-.00121	.00001	-.00019	-.00078	-.26438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21228.**	**17628.**
Stddev	104.	26.
%RSD	.48785	.14966
#1	21342.	17647.
#2	21140.	17598.
#3	21202.	17639.

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 17:15:40 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40082	10.001	.39720	.50106	.98035	.04933	9.9092
Stddev	.00458	.140	.00218	.00860	.00884	.00077	.0893
%RSD	1.1424	1.3999	.54914	1.7162	.90188	1.5616	.90111
#1	.39565	10.014	.39871	.49129	.97044	.04845	9.8224
#2	.40246	9.8543	.39820	.50436	.98319	.04988	9.9043
#3	.40436	10.133	.39470	.50751	.98743	.04967	10.001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04963	.19936	.50169	.50060	3.9161	49.847	.98798
Stddev	.00020	.00011	.00819	.00062	.0405	.353	.00830
%RSD	.41283	.05639	1.6331	.12437	1.0348	.70885	.83975
#1	.04985	.19944	.49224	.50130	3.8767	49.470	.98053
#2	.04944	.19923	.50677	.50039	3.9138	49.900	.98649
#3	.04960	.19942	.50607	.50011	3.9577	50.171	.99692
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.8674	.49016	.99581	50.436	.50373	F -14.118	.50429
Stddev	.0845	.00334	.00311	.342	.00108	22.636	.00156
%RSD	.85599	.68193	.31280	.67898	.21370	160.33	.30848
#1	9.7739	.48742	.99927	50.171	.50497	-33.092	.50558
#2	9.8903	.48918	.99491	50.313	.50308	10.937	.50472
#3	9.9381	.49388	.99324	50.822	.50313	-20.199	.50256
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 17:15:40 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.681	10.102	F 18.015	1.1989	.39742	4.9485	1.0054
Stddev	5.487	.090	1.735	.0056	.00603	.0182	.0013
%RSD	34.989	.88788	9.6313	.46466	1.5175	.36829	.12469
#1	19.700	10.005	18.338	1.2019	.40416	4.9691	1.0052
#2	17.914	10.121	16.141	1.1925	.39557	4.9419	1.0042
#3	9.4302	10.181	19.566	1.2024	.39252	4.9345	1.0067
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99074	.97474	.50814	.99061	1.0045	F .68953
Stddev	.00787	.00686	.00306	.01281	.0006	.15917
%RSD	.79455	.70407	.60252	1.2931	.05984	23.084
#1	.98403	.96890	.50919	.97600	1.0045	.74143
#2	.98877	.97302	.50469	.99593	1.0039	.51088
#3	.99941	.98230	.51053	.99991	1.0051	.81628
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20936.	18326.
Stddev	283.	261.
%RSD	1.3496	1.4241
#1	21229.	18611.
#2	20916.	18271.
#3	20665.	18098.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 17:18:53 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	.00178	-.00105	.00184	.00001	-.00003	-.02415
Stddev	.00042	.01704	.00274	.00109	.00007	.00002	.01889
%RSD	137.91	957.65	261.05	59.297	605.86	47.409	78.219
#1	-.00072	.01572	-.00406	.00078	.00008	-.00005	-.03207
#2	-.00032	-.01721	-.00036	.00296	-.00004	-.00003	-.03780
#3	.00012	.00683	.00128	.00178	-.00001	-.00002	-.00259
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	-.00004	.00048	.00013	.00197	-.06583	.00577
Stddev	.00005	.00012	.00059	.00043	.00482	.04578	.00252
%RSD	89.591	306.44	124.07	334.91	244.00	69.548	43.693
#1	-.00001	-.00013	.00113	-.00028	.00478	-.10206	.00558
#2	-.00011	.00009	.00032	.00010	-.00359	-.01437	.00839
#3	-.00006	-.00007	-.00002	.00057	.00473	-.08106	.00335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00630	-.00013	.00067	-.01930	-.00014	F 14.512	.00050
Stddev	.01418	.00045	.00042	.01084	.00050	45.216	.00104
%RSD	225.25	337.28	61.856	56.166	370.40	311.58	206.37
#1	-.00315	-.00010	.00044	-.00802	.00013	41.155	-.00069
#2	.02261	.00030	.00042	-.02964	-.00071	-37.695	.00119
#3	-.00057	-.00060	.00115	-.02025	.00018	40.076	.00102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 17:18:53 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 3.2634	F -.31664	F 15.411	-.00014	-.00113	.00433	.00052
Stddev	3.8640	.04490	2.150	.00058	.00086	.00085	.00053
%RSD	118.40	14.181	13.952	411.02	75.671	19.642	102.11
#1	.51861	-.35355	14.177	.00002	-.00015	.00491	.00107
#2	7.6822	-.26665	14.162	-.00079	-.00174	.00473	.00002
#3	1.5895	-.32974	17.894	.00034	-.00151	.00336	.00046
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00045	-.00194	-.00007	-.00030	F -.21451
Stddev	.00012	.00171	.00187	.00027	.00014	.02025
%RSD	114.18	382.46	96.315	375.59	46.224	9.4411
#1	.00018	.00081	-.00365	-.00001	-.00044	-.19843
#2	-.00003	-.00141	.00006	-.00037	-.00029	-.23725
#3	.00016	.00194	-.00223	.00016	-.00016	-.20785
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21425.	17310.
Stddev	153.	261.
%RSD	.71599	1.5056
#1	21303.	17095.
#2	21375.	17235.
#3	21597.	17600.

Approved: February 08, 2012

Sample Name: PBW B6 Acquired: 2/7/2012 17:22:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388812-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	-.01223	-.00033	.00128	-.00009	-.00006	-.00944
Stddev	.00023	.01236	.00102	.00014	.00014	.00003	.00453
%RSD	141.66	101.04	308.40	11.098	168.81	46.083	47.944
#1	.00010	-.00419	-.00089	.00116	-.00002	-.00006	-.01430
#2	-.00025	-.02646	.00084	.00124	.00002	-.00008	-.00534
#3	-.00033	-.00604	-.00095	.00143	-.00025	-.00003	-.00869
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00009	.00152	.00092	.01145	-.07629	.00222
Stddev	.00011	.00013	.00037	.00030	.00135	.03646	.00141
%RSD	108.69	139.08	24.402	33.144	11.821	47.788	63.503
#1	-.00001	.00002	.00115	.00126	.01183	-.06076	.00372
#2	-.00008	-.00024	.00189	.00070	.00995	-.11794	.00091
#3	-.00022	-.00007	.00152	.00078	.01257	-.05017	.00204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00950	-.00026	.00012	-.02636	.00017	F -1.7100	-.00090
Stddev	.00931	.00054	.00020	.02114	.00043	7.3463	.00143
%RSD	97.996	208.10	173.59	80.212	262.61	429.60	160.15
#1	.01955	.00036	.00025	-.05035	.00059	4.2524	.00076
#2	.00119	-.00056	-.00012	-.01825	.00018	.53420	-.00173
#3	.00775	-.00058	.00022	-.01047	-.00027	-9.9167	-.00172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Sample Name: PBW B6 Acquired: 2/7/2012 17:22:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388812-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.0169	F -.28982	F 14.358	-.00016	-.00183	.01142	.00026
Stddev	4.7472	.02946	3.678	.00182	.00196	.00143	.00032
%RSD	78.898	10.165	25.617	1172.2	107.01	12.477	125.82
#1	5.9783	-.25826	18.597	.00155	-.00272	.01223	.00042
#2	1.2890	-.29461	12.468	.00007	-.00320	.01226	.00047
#3	10.783	-.31660	12.009	-.00208	.00041	.00978	-.00012
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00117	-.00093	-.00003	.00251	F -.06482
Stddev	.00018	.00103	.00100	.00003	.00002	.07263
%RSD	16279.	87.998	107.69	105.57	.76678	112.05
#1	-.00015	.00224	-.00195	-.00001	.00252	-.06184
#2	.00020	.00018	.00005	-.00001	.00251	-.13890
#3	-.00005	.00110	-.00088	-.00006	.00248	.00627
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21789.	18382.
Stddev	75.	310.
%RSD	.34334	1.6861
#1	21836.	18149.
#2	21703.	18263.
#3	21828.	18734.

Approved: February 08, 2012

Sample Name: LCSW B6 Acquired: 2/7/2012 17:25:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388812-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20299	5.0301	.19940	.99619	.49463	.02460	4.9514
Stddev	.00393	.0076	.00113	.01810	.00094	.00040	.0430
%RSD	1.9365	.15215	.56550	1.8168	.18963	1.6102	.86831
#1	.20444	5.0376	.19973	1.0064	.49357	.02482	4.9021
#2	.20599	5.0305	.20032	1.0069	.49496	.02484	4.9710
#3	.19854	5.0223	.19814	.97529	.49536	.02415	4.9811
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02499	.10162	.25043	.25539	1.9481	25.113	.50141
Stddev	.00024	.00055	.00508	.00070	.0064	.055	.00095
%RSD	.94740	.53891	2.0302	.27541	.32888	.21885	.18864
#1	.02507	.10208	.25350	.25601	1.9414	25.052	.50090
#2	.02518	.10177	.25322	.25554	1.9542	25.130	.50084
#3	.02473	.10101	.24456	.25463	1.9486	25.158	.50251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0052	.24638	.50482	25.912	.25652	F -19.926	.25647
Stddev	.0249	.00060	.00209	.153	.00121	21.569	.00211
%RSD	.49741	.24502	.41302	.59105	.47241	108.25	.82324
#1	5.0155	.24570	.50585	25.736	.25610	-38.831	.25730
#2	4.9769	.24686	.50620	25.979	.25788	-24.516	.25804
#3	5.0234	.24658	.50243	26.020	.25557	3.5690	.25407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: LCSW B6 Acquired: 2/7/2012 17:25:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388812-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 18.593	5.1894	F 10.476	.60447	.20016	2.6134	.49540
Stddev	6.999	.0648	1.712	.00148	.00426	.0120	.00261
%RSD	37.645	1.2482	16.344	.24545	2.1279	.45975	.52695
#1	26.400	5.2626	8.6516	.60583	.19912	2.6271	.49817
#2	12.879	5.1396	10.729	.60469	.19651	2.6080	.49505
#3	16.500	5.1658	12.048	.60289	.20484	2.6049	.49298
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49464	.48763	.26321	.49321	.51603	.26884
Stddev	.00319	.00046	.00031	.00962	.00230	.12367
%RSD	.64579	.09516	.11892	1.9513	.44603	46.000
#1	.49120	.48710	.26341	.49843	.51867	.12744
#2	.49520	.48779	.26285	.49910	.51450	.32225
#3	.49751	.48799	.26338	.48211	.51491	.35682
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21835.	18482.
Stddev	107.	186.
%RSD	.49106	1.0083
#1	21714.	18501.
#2	21872.	18287.
#3	21919.	18658.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007502 Acquired: 2/7/2012 17:29:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.28004	-.00010	.00644	.01867	.00004	.46146
Stddev	.00025	.00983	.00146	.00044	.00034	.00004	.01461
%RSD	47.989	3.5110	1400.7	6.7858	1.8311	111.99	3.1656
#1	-.00054	.28825	-.00162	.00689	.01849	-.00001	.44963
#2	-.00077	.28272	.00129	.00642	.01846	.00004	.45695
#3	-.00026	.26914	.00002	.00601	.01907	.00007	.47779
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00053	.00644	.00121	.42469	.61306	-.00034
Stddev	.00010	.00002	.00024	.00046	.00722	.03317	.00246
%RSD	334.47	3.5047	3.7928	37.739	1.7002	5.4097	721.82
#1	-.00008	.00055	.00622	.00164	.41871	.58250	.00246
#2	.00009	.00052	.00670	.00128	.42265	.64833	-.00134
#3	-.00010	.00053	.00639	.00073	.43272	.60836	-.00214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40460	.02650	.00061	2.1023	.00457	F -62.493	.00091
Stddev	.01870	.00045	.00007	.0085	.00064	16.742	.00210
%RSD	4.6208	1.6968	12.124	.40586	13.920	26.790	230.29
#1	.41620	.02687	.00066	2.1023	.00409	-47.533	-.00126
#2	.41457	.02600	.00052	2.0938	.00434	-59.369	.00294
#3	.38303	.02662	.00063	2.1109	.00529	-80.577	.00106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007502 Acquired: 2/7/2012 17:29:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 17.016	2.9825	F -127.46	.00011	-.00252	4.3206	.00018
Stddev	5.201	.0604	3.72	.00081	.00121	.0162	.00020
%RSD	30.566	2.0264	2.9178	762.78	48.065	.37459	111.68
#1	13.143	3.0203	-130.64	-.00073	-.00276	4.3387	-.00004
#2	14.978	3.0143	-123.37	.00089	-.00120	4.3152	.00036
#3	22.928	2.9128	-128.37	.00016	-.00359	4.3077	.00021
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00358	.00438	-.00109	.00038	.00111	F -.05052
Stddev	.00007	.00122	.00133	.00025	.00012	.08417
%RSD	1.8713	27.736	122.61	64.670	11.246	166.63
#1	.00360	.00578	.00043	.00043	.00103	.03670
#2	.00351	.00378	-.00205	.00011	.00104	-.05698
#3	.00364	.00358	-.00164	.00060	.00125	-.13127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21720.	19213.
Stddev	211.	219.
%RSD	.97051	1.1378
#1	21963.	19458.
#2	21605.	19146.
#3	21591.	19036.

Approved: February 08, 2012

Sample Name: L1202007505 Acquired: 2/7/2012 17:32:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388812-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00066	.02342	-.00050	.00368	.01369	.00000	.71020
Stddev	.00083	.02802	.00122	.00129	.00020	.0000	.00526
%RSD	125.80	119.64	242.69	35.166	1.4411	634.29	.74045
#1	-.00077	.00327	-.00112	.00326	.01371	.00001	.70439
#2	-.00143	.01157	-.00129	.00513	.01348	-.00003	.71158
#3	.00022	.05542	.00090	.00265	.01387	.00001	.71463
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	.00011	.00238	.00078	.06340	.35378	.00785
Stddev	.00011	.00015	.00049	.00042	.00091	.01695	.00108
%RSD	69.448	136.12	20.535	53.899	1.4311	4.7920	13.753
#1	-.00006	.00015	.00274	.00101	.06277	.37114	.00796
#2	-.00013	-.00005	.00258	.00030	.06300	.35292	.00888
#3	-.00028	.00024	.00182	.00105	.06444	.33727	.00672
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.58162	.00715	.00016	1.5106	.00141	F -19.073	.00083
Stddev	.00461	.00029	.00029	.0036	.00007	12.112	.00037
%RSD	.79263	4.0623	179.79	.23590	4.7503	63.506	45.259
#1	.57640	.00683	.00032	1.5090	.00136	-5.3622	.00081
#2	.58513	.00723	-.00017	1.5081	.00139	-28.320	.00121
#3	.58334	.00739	.00034	1.5146	.00149	-23.536	.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007505 Acquired: 2/7/2012 17:32:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388812-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9225**	**3.0092**	F **-114.14**	**-.00101**	**-.00288**	**4.9844**	**.00015**
Stddev	2.4288	.0432	1.70	.00076	.00378	.0081	.00031
%RSD	126.34	1.4352	1.4888	75.164	130.90	.16220	207.71
#1	3.8787	3.0319	-112.18	-.00069	-.00653	4.9876	-.00020
#2	-.79605	2.9594	-115.19	-.00188	.00101	4.9752	.00039
#3	2.6850	3.0363	-115.05	-.00047	-.00313	4.9904	.00025
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00505**	**.00050**	**-.00122**	**.00015**	**.00487**	F **-.13282**
Stddev	.00018	.00058	.00062	.00053	.00012	.17502
%RSD	3.6476	115.82	51.334	354.00	2.5055	131.77
#1	.00487	.00100	-.00133	.00059	.00498	-.12037
#2	.00505	.00063	-.00054	-.00044	.00474	.03564
#3	.00524	-.00013	-.00177	.00030	.00489	-.31373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21228.**	**17851.**
Stddev	24.	92.
%RSD	.11286	.51558
#1	21230.	17822.
#2	21251.	17777.
#3	21203.	17954.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007508S Acquired: 2/7/2012 17:35:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388812-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20134	5.1331	.19579	.98749	.51523	.02468	5.6618
Stddev	.00037	.0398	.00300	.00527	.00098	.00008	.0211
%RSD	.18274	.77499	1.5329	.53363	.18942	.31213	.37306
#1	.20150	5.1357	.19252	.99206	.51501	.02476	5.6626
#2	.20092	5.1715	.19643	.98172	.51630	.02466	5.6825
#3	.20161	5.0921	.19841	.98868	.51439	.02461	5.6403
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02495	.10148	.25323	.25436	2.0217	25.703	.51213
Stddev	.00006	.00010	.00125	.00108	.0062	.101	.00278
%RSD	.23893	.10038	.49287	.42497	.30742	.39203	.54245
#1	.02490	.10141	.25423	.25329	2.0190	25.593	.51379
#2	.02495	.10145	.25183	.25432	2.0288	25.792	.51368
#3	.02502	.10160	.25362	.25546	2.0174	25.722	.50892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.6213	.25557	.50793	27.464	.25828	F -21.887	.25605
Stddev	.0172	.00149	.00114	.012	.00120	28.154	.00262
%RSD	.30652	.58345	.22517	.04430	.46529	128.63	1.0223
#1	5.6213	.25386	.50725	27.453	.25695	10.361	.25314
#2	5.6385	.25660	.50728	27.463	.25929	-34.453	.25821
#3	5.6041	.25625	.50925	27.477	.25859	-41.570	.25680
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007508S Acquired: 2/7/2012 17:35:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388812-04

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.9636**	**8.2912**	F **-115.93**	**.59361**	**.19622**	**7.4600**	**.53039**
Stddev	6.0054	.0070	2.59	.00248	.00175	.0144	.00166
%RSD	86.241	.08404	2.2349	.41725	.89166	.19310	.31213
#1	9.7014	8.2947	-117.08	.59229	.19519	7.4444	.52911
#2	.07709	8.2832	-117.75	.59207	.19824	7.4728	.52980
#3	11.112	8.2958	-112.96	.59647	.19522	7.4628	.53226
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50058**	**.49051**	**.25966**	**.49276**	**.51985**	**.24847**
Stddev	.00095	.00284	.00100	.00184	.00094	.21901
%RSD	.18988	.57922	.38608	.37318	.18155	88.142
#1	.49976	.48747	.25941	.49483	.51908	.02970
#2	.50162	.49311	.26076	.49134	.51956	.24800
#3	.50037	.49095	.25880	.49209	.52090	.46771
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21025.**	**17461.**
Stddev	67.	75.
%RSD	.32062	.43074
#1	21061.	17488.
#2	21067.	17376.
#3	20947.	17519.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007511SD Acquired: 2/7/2012 17:39:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388812-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20262	5.0916	.19783	1.0009	.51368	.02486	5.6956
Stddev	.00056	.0526	.00066	.0066	.00297	.00014	.0349
%RSD	.27471	1.0339	.33336	.66424	.57831	.55873	.61236
#1	.20211	5.0333	.19817	.99318	.51135	.02471	5.6554
#2	.20321	5.1059	.19707	1.0043	.51702	.02499	5.7131
#3	.20255	5.1356	.19826	1.0050	.51267	.02489	5.7182
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02492	.10160	.25464	.25459	2.0116	25.759	.50558
Stddev	.00021	.00038	.00066	.00153	.0116	.112	.00204
%RSD	.85433	.37381	.25866	.60204	.57827	.43664	.40415
#1	.02483	.10123	.25388	.25365	2.0002	25.636	.50323
#2	.02516	.10199	.25506	.25636	2.0112	25.856	.50653
#3	.02476	.10157	.25498	.25377	2.0235	25.785	.50697
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.6358	.25526	.50568	27.544	.25771	F -39.192	.25586
Stddev	.0485	.00057	.00160	.119	.00148	24.835	.00339
%RSD	.86103	.22217	.31567	.43123	.57607	63.367	1.3256
#1	5.5824	.25463	.50416	27.423	.25618	-11.603	.25258
#2	5.6478	.25573	.50734	27.547	.25915	-59.761	.25563
#3	5.6772	.25542	.50553	27.661	.25780	-46.212	.25936
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007511SD Acquired: 2/7/2012 17:39:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388812-05

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.516	8.4561	F -122.59	.59886	.20124	7.6483	.53376
Stddev	2.244	.1037	4.68	.00153	.00078	.0104	.00278
%RSD	17.929	1.2261	3.8172	.25470	.38606	.13597	.52112
#1	9.9332	8.3395	-118.34	.59711	.20040	7.6514	.53056
#2	13.624	8.5379	-121.82	.59993	.20192	7.6567	.53548
#3	13.990	8.4910	-127.61	.59952	.20141	7.6366	.53526
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50129	.48855	.26144	.49540	.51992	.42377
Stddev	.00222	.00186	.00136	.00243	.00056	.17583
%RSD	.44259	.38134	.52072	.49012	.10813	41.492
#1	.49887	.48656	.26221	.49266	.51950	.42607
#2	.50178	.48884	.26224	.49624	.52056	.24680
#3	.50323	.49025	.25987	.49729	.51971	.59843
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21463.	18032.
Stddev	102.	74.
%RSD	.47624	.41056
#1	21578.	17949.
#2	21431.	18054.
#3	21381.	18093.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007514 Acquired: 2/7/2012 17:42:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	3.3882	.00106	.00946	.03836	.00012	.87655
Stddev	.00046	.0287	.00231	.00114	.00045	.00001	.01006
%RSD	177.13	.84820	218.75	12.100	1.1662	7.5943	1.1472
#1	.00000	3.3583	.00364	.01033	.03883	.00011	.87475
#2	.00001	3.4156	.00033	.00816	.03831	.00011	.88738
#3	-.00079	3.3905	-.00081	.00989	.03794	.00013	.86752
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.00385	.01015	.00620	7.5516	.86741	.01056
Stddev	.00011	.00007	.00015	.00053	.0459	.02960	.00386
%RSD	104.50	1.8868	1.4996	8.5868	.60716	3.4124	36.542
#1	-.00023	.00383	.01032	.00664	7.6028	.89892	.01165
#2	-.00005	.00393	.01013	.00635	7.5379	.84018	.00627
#3	-.00003	.00379	.01001	.00561	7.5142	.86314	.01375
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6256	.17847	.00130	1.5806	.01307	F -638.70	.00823
Stddev	.0201	.00044	.00006	.0118	.00103	8.45	.00074
%RSD	1.2388	.24728	4.4624	.74424	7.8711	1.3232	8.9952
#1	1.6484	.17885	.00124	1.5865	.01294	-638.90	.00860
#2	1.6104	.17799	.00131	1.5882	.01210	-647.05	.00738
#3	1.6180	.17858	.00135	1.5670	.01415	-630.15	.00873
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007514 Acquired: 2/7/2012 17:42:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.5159**	**3.8735**	F **-153.60**	**.00150**	**.00136**	**8.7455**	**.00101**
Stddev	3.5589	.0344	2.39	.00098	.00269	.0196	.00048
%RSD	41.791	.88858	1.5592	65.242	197.01	.22460	47.607
#1	10.984	3.8338	-152.87	.00096	.00378	8.7302	.00155
#2	4.4363	3.8931	-151.65	.00091	-.00153	8.7387	.00063
#3	10.128	3.8936	-156.27	.00263	.00185	8.7677	.00085
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00738**	**.01056**	**.00016**	**.00300**	**.04341**	**.33743**
Stddev	.00019	.00181	.00161	.00019	.00058	.05823
%RSD	2.5560	17.151	1036.4	6.3073	1.3451	17.256
#1	.00751	.00938	-.00140	.00300	.04305	.36904
#2	.00716	.00966	.00004	.00281	.04310	.27023
#3	.00746	.01265	.00182	.00319	.04408	.37301
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22771.**	**18937.**
Stddev	135.	311.
%RSD	.59145	1.6403
#1	22633.	18716.
#2	22902.	18803.
#3	22777.	19292.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007517 Acquired: 2/7/2012 17:45:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	2.3220	.00021	.00678	.02275	.00006	1.1259
Stddev	.00044	.0332	.00115	.00109	.00036	.00003	.0073
%RSD	713.55	1.4315	546.03	16.047	1.5792	47.387	.64551
#1	-.00024	2.2837	-.00058	.00556	.02238	.00004	1.1193
#2	-.00015	2.3431	-.00032	.00715	.02309	.00004	1.1337
#3	.00057	2.3392	.00154	.00764	.02280	.00009	1.1248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00219	.00993	.00488	4.4463	.57844	.01236
Stddev	.00007	.00016	.00042	.00024	.0316	.03103	.00348
%RSD	94.255	7.4569	4.2051	4.8330	.71021	5.3650	28.154
#1	-.00014	.00201	.00946	.00462	4.4103	.60398	.00962
#2	-.00001	.00224	.01027	.00508	4.4697	.54390	.01628
#3	-.00007	.00232	.01005	.00495	4.4587	.58743	.01118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3582	.08471	.00072	1.3876	.00939	F -446.32	.00263
Stddev	.0158	.00035	.00016	.0046	.00058	3.60	.00011
%RSD	1.1619	.41397	22.710	.32915	6.1429	.80710	4.0645
#1	1.3507	.08511	.00060	1.3823	.00905	-450.07	.00272
#2	1.3476	.08448	.00091	1.3905	.00907	-442.88	.00266
#3	1.3763	.08453	.00065	1.3899	.01006	-446.02	.00251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007517 Acquired: 2/7/2012 17:45:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.2698**	**4.6643**	F **-182.06**	**.00180**	**-.00126**	**7.5400**	**.00067**
Stddev	12.176	.1050	1.15	.00128	.00124	.0193	.00016
%RSD	147.24	2.2506	.63312	71.092	98.079	.25598	23.700
#1	-3.1034	4.5471	-181.05	.00306	-.00077	7.5256	.00085
#2	21.115	4.6959	-181.82	.00183	-.00267	7.5324	.00056
#3	6.7977	4.7498	-183.32	.00050	-.00034	7.5619	.00059
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00867**	**.00707**	**.00017**	**.00183**	**.02590**	**.25500**
Stddev	.00002	.00148	.00031	.00018	.00010	.05718
%RSD	.27616	20.880	179.73	9.7467	.39995	22.422
#1	.00868	.00870	.00043	.00180	.02578	.31183
#2	.00868	.00669	.00025	.00203	.02596	.25570
#3	.00864	.00582	-.00017	.00167	.02596	.19748
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21959.**	**18810.**
Stddev	135.	242.
%RSD	.61429	1.2839
#1	22100.	18656.
#2	21831.	18687.
#3	21946.	19089.

Approved: February 08, 2012

Sample Name: L1202007517PS Acquired: 2/7/2012 17:49:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388881-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19069	6.8124	.18841	.94070	.49249	.02347	5.9437
Stddev	.00045	.0285	.00116	.00353	.00283	.00011	.0331
%RSD	.23457	.41804	.61421	.37499	.57390	.47110	.55628
#1	.19120	6.7796	.18965	.94477	.48949	.02360	5.9264
#2	.19053	6.8264	.18736	.93842	.49511	.02341	5.9229
#3	.19035	6.8311	.18823	.93893	.49287	.02342	5.9819
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02403	.09821	.24579	.24613	5.8340	24.365	.49557
Stddev	.00008	.00038	.00039	.00107	.0283	.043	.00302
%RSD	.31715	.38543	.16040	.43562	.48481	.17595	.60884
#1	.02405	.09815	.24610	.24693	5.8014	24.324	.49553
#2	.02395	.09786	.24535	.24491	5.8524	24.362	.49860
#3	.02410	.09861	.24594	.24654	5.8482	24.410	.49257
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.9627	.31252	.47675	25.876	.25060	F -387.01	.24411
Stddev	.0243	.00065	.00219	.084	.00147	23.96	.00235
%RSD	.40813	.20936	.45843	.32331	.58596	6.1909	.96257
#1	5.9349	.31233	.47650	25.944	.25107	-399.60	.24488
#2	5.9726	.31325	.47469	25.783	.24895	-359.38	.24147
#3	5.9805	.31199	.47904	25.902	.25177	-402.06	.24598
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007517PS Acquired: 2/7/2012 17:49:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388881-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.4964	F 9.8622	F -180.10	.56624	.18664	10.121	.51555
Stddev	4.1738	.1624	3.89	.00256	.00092	.019	.00186
%RSD	119.37	1.6470	2.1583	.45254	.49083	.18954	.36078
#1	-.65967	9.7812	-179.35	.56598	.18695	10.108	.51501
#2	7.6876	9.7562	-176.64	.56383	.18737	10.112	.51402
#3	3.4612	10.049	-184.31	.56893	.18561	10.143	.51762
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47792	.46929	.24818	.46856	.51550	.78666
Stddev	.00063	.00197	.00140	.00212	.00132	.13971
%RSD	.13234	.42032	.56365	.45326	.25536	17.761
#1	.47824	.46896	.24727	.47025	.51462	.94560
#2	.47719	.47141	.24748	.46925	.51487	.73112
#3	.47833	.46751	.24979	.46618	.51701	.68325
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20780.	17604.
Stddev	44.	133.
%RSD	.21015	.75503
#1	20737.	17638.
#2	20777.	17717.
#3	20824.	17458.

Approved: February 08, 2012

Sample Name: L1202007517SDL Acquired: 2/7/2012 17:52:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388881-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00108	.42872	-.00063	.00523	.00477	.00000	.20024
Stddev	.00042	.02827	.00090	.00121	.00005	.00002	.00904
%RSD	38.696	6.5939	143.51	23.149	1.0969	413.59	4.5148
#1	-.00128	.45947	-.00151	.00477	.00482	-.00002	.20883
#2	-.00136	.40386	.00028	.00432	.00471	.00002	.20107
#3	-.00060	.42284	-.00065	.00661	.00477	.00001	.19081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.00030	.00226	.00215	.90793	.11508	.00183
Stddev	.00003	.00007	.00037	.00044	.00588	.04813	.00144
%RSD	53.649	22.812	16.509	20.705	.64758	41.822	78.332
#1	-.00009	.00038	.00190	.00241	.90431	.17054	.00206
#2	-.00003	.00027	.00224	.00239	.91472	.09043	.00030
#3	-.00006	.00025	.00264	.00163	.90477	.08427	.00315
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28004	.01728	.00061	.25513	.00209	F -92.637	.00001
Stddev	.01661	.00051	.00047	.02186	.00046	19.738	.00106
%RSD	5.9310	2.9665	77.667	8.5680	22.034	21.307	7443.7
#1	.29839	.01777	.00014	.22994	.00232	-115.43	.00020
#2	.27572	.01731	.00060	.26630	.00156	-81.270	-.00113
#3	.26603	.01675	.00109	.26914	.00240	-81.212	.00097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007517SDL Acquired: 2/7/2012 17:52:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388881-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.5075**	**.74664**	F **-25.553**	**-.00050**	**-.00166**	**1.5656**	**.00026**
Stddev	6.6917	.00923	.827	.00030	.00292	.0039	.00030
%RSD	102.83	1.2360	3.2351	60.118	175.52	.24750	114.44
#1	13.131	.75006	-25.634	-.00023	.00108	1.5697	.00052
#2	6.6423	.73619	-24.689	-.00082	-.00473	1.5649	.00034
#3	-.25061	.75367	-26.336	-.00044	-.00134	1.5620	-.00007
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00193**	**.00121**	**-.00025**	**.00055**	**.00508**	F **-.07776**
Stddev	.00004	.00150	.00035	.00036	.00006	.07752
%RSD	1.9511	124.16	138.29	64.480	1.1970	99.696
#1	.00196	.00217	.00009	.00094	.00508	-.07972
#2	.00193	-.00052	-.00024	.00023	.00513	.00072
#3	.00189	.00199	-.00061	.00049	.00501	-.15428
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21160.**	**17563.**
Stddev	11.	91.
%RSD	.05194	.51728
#1	21152.	17663.
#2	21172.	17539.
#3	21155.	17486.

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 17:55:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39007	9.8633	.38892	.48856	.97087	.04835	9.8357
Stddev	.00467	.0375	.00280	.00664	.00223	.00057	.0209
%RSD	1.1978	.38036	.72074	1.3589	.22959	1.1738	.21290
#1	.39080	9.8216	.38583	.49073	.96848	.04854	9.8116
#2	.38508	9.8942	.39131	.48111	.97290	.04772	9.8482
#3	.39434	9.8743	.38962	.49384	.97122	.04880	9.8474
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04875	.19651	.48827	.49368	3.8728	49.365	.97924
Stddev	.00007	.00055	.00490	.00284	.0144	.095	.00140
%RSD	.14308	.27997	1.0038	.57539	.37301	.19174	.14325
#1	.04876	.19595	.49042	.49304	3.8660	49.278	.97762
#2	.04881	.19652	.48266	.49121	3.8894	49.466	.97993
#3	.04867	.19705	.49173	.49678	3.8630	49.352	.98016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.7134	.48268	.97599	49.771	.49502	F -36.135	.49811
Stddev	.0479	.00121	.00133	.151	.00096	17.443	.00199
%RSD	.49306	.25144	.13671	.30397	.19475	48.272	.39905
#1	9.6801	.48179	.97723	49.609	.49463	-39.295	.50038
#2	9.7683	.48219	.97458	49.909	.49430	-51.781	.49721
#3	9.6919	.48407	.97618	49.795	.49611	-17.328	.49673
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 17:55:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.994**	**9.8433**	F **19.845**	**1.1725**	**.38995**	**4.8974**	**.98785**
Stddev	2.627	.0744	2.915	.0008	.00113	.0168	.00082
%RSD	23.891	.75590	14.689	.06669	.28854	.34304	.08254
#1	8.4050	9.9161	16.517	1.1720	.38868	4.8783	.98692
#2	13.656	9.7674	21.946	1.1734	.39084	4.9100	.98815
#3	10.920	9.8465	21.071	1.1722	.39032	4.9039	.98847
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			10.000				
Range			10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97798**	**.96192**	**.49903**	**.96959**	**.98962**	F **.71230**
Stddev	.00364	.00468	.00133	.01257	.00253	.33463
%RSD	.37196	.48610	.26651	1.2969	.25548	46.978
#1	.97381	.95676	.49814	.97261	.99018	.56666
#2	.98044	.96588	.49839	.95578	.98686	.47518
#3	.97971	.96311	.50056	.98038	.99182	1.0951
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21525.**	**18587.**
Stddev	149.	232.
%RSD	.68995	1.2460
#1	21465.	18435.
#2	21694.	18473.
#3	21416.	18854.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 17:59:10 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	-.00866	-.00060	.00372	-.00023	-.00004	-.01694
Stddev	.00026	.02676	.00080	.00109	.00020	.00004	.01166
%RSD	101.86	308.85	131.63	29.356	87.984	89.760	68.827
#1	-.00035	-.03848	-.00152	.00350	-.00012	-.00005	-.00353
#2	-.00044	-.00080	-.00012	.00491	-.00046	.00000	-.02465
#3	.00004	.01329	-.00017	.00276	-.00010	-.00006	-.02263
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	-.00013	.00059	.00119	.00394	-.01591	.00306
Stddev	.00007	.00023	.00013	.00022	.00475	.02869	.00170
%RSD	55.797	187.44	22.657	18.471	120.44	180.29	55.401
#1	-.00013	.00015	.00053	.00114	.00167	.01066	.00375
#2	-.00006	-.00027	.00050	.00100	.00075	-.01207	.00430
#3	-.00021	-.00025	.00075	.00143	.00940	-.04632	.00113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00363	.00013	.00052	-.01417	-.00012	F 13.489	.00034
Stddev	.00871	.00026	.00022	.01555	.00014	22.401	.00056
%RSD	240.07	195.66	42.754	109.72	121.72	166.07	162.17
#1	-.01285	.00008	.00037	-.01585	-.00012	39.301	.00063
#2	-.00250	-.00010	.00041	.00215	-.00026	2.0319	-.00030
#3	.00446	.00041	.00077	-.02882	.00003	-.86576	.00070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 17:59:10 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.834	F -.32153	F 14.891	-.00032	-.00102	.01932	.00057
Stddev	1.022	.02769	2.115	.00189	.00107	.00031	.00028
%RSD	9.4370	8.6107	14.205	591.56	104.81	1.6146	49.317
#1	12.006	-.33056	13.033	.00174	.00014	.01902	.00085
#2	10.373	-.29045	14.449	-.00073	-.00125	.01965	.00058
#3	10.123	-.34357	17.193	-.00197	-.00196	.01930	.00029
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00142	.00022	.00023	-.00031	F -.12687
Stddev	.00006	.00183	.00111	.00057	.00010	.12975
%RSD	42.086	129.17	506.27	244.34	31.396	102.27
#1	.00011	.00192	.00114	-.00021	-.00027	.01982
#2	.00010	-.00061	-.00101	.00087	-.00023	-.22659
#3	.00021	.00294	.00053	.00004	-.00042	-.17383
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21419.	18097.
Stddev	73.	245.
%RSD	.34231	1.3555
#1	21496.	18065.
#2	21349.	18357.
#3	21411.	17870.

Approved: February 08, 2012

Sample Name: L1202007520 Acquired: 2/7/2012 18:02:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00083	.27536	.00039	.00362	.00770	-.00002	.91385
Stddev	.00069	.02898	.00093	.00108	.00048	.00000	.00305
%RSD	82.735	10.524	240.68	29.822	6.2376	3.5852	.33405
#1	-.00152	.28264	.00146	.00485	.00739	-.00002	.91489
#2	-.00015	.30001	-.00020	.00284	.00825	-.00002	.91041
#3	-.00082	.24344	-.00010	.00317	.00745	-.00002	.91624
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.00019	.00366	.00086	.52581	.14811	.00815
Stddev	.00004	.00026	.00020	.00033	.00375	.03014	.00161
%RSD	47.469	134.54	5.4730	37.979	.71366	20.353	19.707
#1	-.00005	.00010	.00379	.00056	.52192	.11443	.00648
#2	-.00009	.00049	.00377	.00081	.52612	.15734	.00830
#3	-.00013	.00000	.00343	.00121	.52940	.17256	.00968
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.94325	.01938	.00034	1.7214	.00219	F -125.75	.00108
Stddev	.01819	.00074	.00022	.0182	.00026	12.00	.00128
%RSD	1.9281	3.8280	65.299	1.0594	11.927	9.5414	118.15
#1	.93896	.02023	.00040	1.7407	.00199	-134.24	.00084
#2	.96319	.01900	.00053	1.7192	.00210	-130.98	-.00006
#3	.92759	.01890	.00010	1.7044	.00248	-112.02	.00247
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007520 Acquired: 2/7/2012 18:02:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -3.9797	4.7201	F -191.24	.00066	.00025	4.5613	-.00004
Stddev	2.8496	.0692	1.80	.00139	.00165	.0047	.00022
%RSD	71.601	1.4657	.94117	211.38	664.52	.10412	551.74
#1	-7.2292	4.6767	-189.95	.00081	.00008	4.5602	.00020
#2	-1.9070	4.7999	-193.30	.00197	.00197	4.5665	-.00011
#3	-2.8030	4.6837	-190.49	-.00080	-.00131	4.5572	-.00021
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00718	.00035	.00011	.00009	.00495	F -.04292
Stddev	.00009	.00060	.00184	.00035	.00007	.06088
%RSD	1.2202	168.75	1751.6	396.23	1.4046	141.82
#1	.00728	-.00032	.00207	.00016	.00498	-.00454
#2	.00711	.00081	-.00158	-.00029	.00487	-.11311
#3	.00715	.00057	-.00018	.00039	.00500	-.01112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21605.	18096.
Stddev	148.	174.
%RSD	.68597	.96012
#1	21632.	18003.
#2	21738.	17988.
#3	21445.	18296.

Approved: February 08, 2012

Sample Name: L1202007523 Acquired: 2/7/2012 18:06:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	4.8746	.00092	.00667	.04262	.00013	.88095
Stddev	.00071	.0539	.00041	.00030	.00021	.00003	.01108
%RSD	168.06	1.1063	44.919	4.4279	.50133	19.051	1.2576
#1	-.00101	4.8606	.00099	.00661	.04286	.00012	.88444
#2	-.00062	4.9341	.00129	.00641	.04255	.00012	.88986
#3	.00036	4.8290	.00047	.00699	.04246	.00016	.86854
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.00584	.03951	.00918	10.704	.49949	.01591
Stddev	.00003	.00004	.00054	.00023	.065	.01924	.00188
%RSD	20.336	.73700	1.3565	2.5510	.61014	3.8523	11.789
#1	-.00020	.00581	.04003	.00903	10.757	.51937	.01807
#2	-.00013	.00582	.03953	.00945	10.725	.48096	.01503
#3	-.00017	.00589	.03896	.00906	10.631	.49813	.01464
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2765	.26762	.00420	1.6540	.03235	F -1012.1	.00262
Stddev	.0055	.00196	.00033	.0127	.00023	23.8	.00098
%RSD	.23953	.73249	7.7368	.77048	.69684	2.3472	37.553
#1	2.2775	.26907	.00398	1.6525	.03258	-984.88	.00355
#2	2.2706	.26841	.00405	1.6675	.03234	-1022.9	.00272
#3	2.2814	.26539	.00458	1.6422	.03213	-1028.6	.00159
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007523 Acquired: 2/7/2012 18:06:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.259	3.7590	F -150.14	.00132	-.00091	10.535	.00090
Stddev	1.846	.0260	2.29	.00080	.00068	.021	.00031
%RSD	17.991	.69106	1.5277	60.323	74.524	.20226	33.820
#1	8.2221	3.7849	-152.63	.00216	-.00047	10.559	.00082
#2	11.820	3.7329	-149.66	.00058	-.00056	10.522	.00124
#3	10.735	3.7592	-148.12	.00121	-.00168	10.523	.00065
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00804	.01156	-.00008	.00387	.04600	.05727
Stddev	.00021	.00140	.00144	.00016	.00024	.10771
%RSD	2.6455	12.082	1875.4	4.1886	.52044	188.07
#1	.00813	.01203	-.00145	.00388	.04625	.06409
#2	.00820	.01266	.00142	.00371	.04578	.16141
#3	.00780	.00999	-.00019	.00403	.04599	-.05369
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21862.	18512.
Stddev	314.	524.
%RSD	1.4366	2.8298
#1	21506.	19006.
#2	21983.	18568.
#3	22098.	17962.

Approved: February 08, 2012

Sample Name: L1202007526 Acquired: 2/7/2012 18:09:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	2.9548	.00079	.00446	.02976	.00007	.82399
Stddev	.00014	.0415	.00059	.00124	.00044	.00002	.01088
%RSD	69.034	1.4041	73.688	27.904	1.4731	26.910	1.3201
#1	-.00025	2.9499	.00015	.00312	.03000	.00009	.83596
#2	-.00030	2.9160	.00093	.00558	.03003	.00006	.81471
#3	-.00004	2.9985	.00130	.00466	.02926	.00006	.82130
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.00403	.02801	.00558	6.3380	.44275	.00965
Stddev	.00004	.00022	.00060	.00019	.0313	.05619	.00199
%RSD	23.592	5.4868	2.1557	3.3856	.49443	12.691	20.615
#1	-.00011	.00429	.02814	.00537	6.3695	.50508	.00871
#2	-.00015	.00388	.02854	.00563	6.3379	.42721	.01193
#3	-.00018	.00393	.02736	.00574	6.3068	.39597	.00831
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6314	.16032	.00317	1.6110	.02208	F -641.82	.00161
Stddev	.0173	.00107	.00023	.0155	.00021	43.42	.00233
%RSD	1.0611	.66490	7.2474	.95875	.96683	6.7647	144.74
#1	1.6137	.16057	.00307	1.6101	.02209	-691.78	.00420
#2	1.6321	.16123	.00343	1.6269	.02228	-613.24	.00097
#3	1.6483	.15915	.00301	1.5961	.02185	-620.45	-.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Sample Name: L1202007526 Acquired: 2/7/2012 18:09:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9.4687	3.6659	F -148.80	.00084	-.00140	8.2094	.00091
Stddev	3.3034	.0069	2.84	.00186	.00312	.0183	.00057
%RSD	34.887	.18958	1.9116	222.01	222.41	.22309	63.206
#1	5.8205	3.6739	-152.03	-.00066	-.00471	8.2018	.00026
#2	10.328	3.6625	-147.73	.00026	-.00099	8.2303	.00111
#3	12.257	3.6614	-146.65	.00292	.00149	8.1961	.00135
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00720	.00681	.00028	.00222	.03281	.23464
Stddev	.00004	.00066	.00059	.00012	.00007	.23851
%RSD	.50237	9.7062	212.22	5.4253	.19941	101.65
#1	.00718	.00627	-.00030	.00225	.03286	.13837
#2	.00724	.00661	.00025	.00233	.03282	.05930
#3	.00717	.00755	.00088	.00209	.03273	.50623
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21948.	17787.
Stddev	212.	195.
%RSD	.96469	1.0944
#1	21799.	17822.
#2	21853.	17577.
#3	22190.	17962.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007529 Acquired: 2/7/2012 18:12:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	-.03951	.00032	.00222	.00061	-.00004	-.00864
Stddev	.00042	.03461	.00121	.00032	.00017	.00002	.01257
%RSD	106.61	87.585	373.96	14.530	26.934	53.579	145.58
#1	-.00088	-.02485	-.00070	.00234	.00043	-.00003	.00576
#2	-.00009	-.07904	.00166	.00247	.00076	-.00006	-.01748
#3	-.00022	-.01466	.00001	.00186	.00065	-.00002	-.01419
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00001	.00164	.00072	.01159	-.01400	-.00011
Stddev	.00011	.00007	.00026	.00052	.00593	.01038	.00027
%RSD	111.57	728.85	15.570	72.058	51.208	74.139	243.15
#1	-.00015	-.00002	.00193	.00107	.01067	-.02466	-.00040
#2	.00003	-.00007	.00156	.00012	.00617	-.01342	-.00009
#3	-.00017	.00006	.00144	.00096	.01793	-.00392	.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01888	-.00012	-.00009	1.1995	-.00058	F -40.629	.00006
Stddev	.01501	.00019	.00005	.0287	.00023	20.637	.00062
%RSD	79.483	155.38	58.962	2.3944	39.694	50.794	1024.8
#1	.01920	-.00015	-.00011	1.2282	-.00059	-22.225	.00034
#2	.00372	.00008	-.00003	1.1708	-.00080	-36.720	.00049
#3	.03374	-.00029	-.00013	1.1994	-.00034	-62.941	-.00065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007529 Acquired: 2/7/2012 18:12:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11.179	.68862	F -34.775	.00075	-.00193	1.8315	.00009
Stddev	2.232	.02343	1.356	.00071	.00332	.0095	.00059
%RSD	19.964	3.4025	3.8992	94.887	171.63	.51705	648.12
#1	12.302	.66195	-36.264	.00010	-.00107	1.8422	.00074
#2	12.625	.70587	-33.612	.00151	-.00560	1.8282	-.00041
#3	8.6084	.69805	-34.450	.00064	.00087	1.8241	-.00006
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.00093	-.00100	.00001	.00070	F -.06933
Stddev	.00005	.00060	.00061	.00049	.00004	.08355
%RSD	12.147	64.586	61.211	4427.1	6.3399	120.52
#1	.00040	.00075	-.00107	-.00051	.00075	-.07164
#2	.00047	.00160	-.00158	.00008	.00066	-.15170
#3	.00038	.00044	-.00036	.00047	.00068	.01535
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21435.	18165.
Stddev	44.	135.
%RSD	.20638	.74436
#1	21385.	18320.
#2	21470.	18101.
#3	21450.	18074.

Approved: February 08, 2012

Sample Name: L1202007532 Acquired: 2/7/2012 18:16:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	-.00463	.00002	.00073	.00026	-.00001	-.01753
Stddev	.00034	.03153	.00160	.00119	.00009	.00002	.00884
%RSD	119.87	681.15	8634.7	163.23	35.462	248.28	50.426
#1	-.00067	-.00564	.00027	-.00046	.00027	-.00003	-.01531
#2	-.00010	-.03565	-.00169	.00073	.00016	.00000	-.02727
#3	-.00007	.02740	.00148	.00191	.00034	.00001	-.01001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.00007	.00240	.00094	.00907	-.10822	.00567
Stddev	.00013	.00021	.00040	.00017	.00693	.01938	.00209
%RSD	537.84	299.43	16.530	17.679	76.405	17.912	36.877
#1	-.00004	.00032	.00227	.00095	.01000	-.12902	.00377
#2	-.00014	-.00008	.00285	.00109	.00172	-.10498	.00532
#3	.00011	-.00002	.00209	.00076	.01549	-.09066	.00791
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00576	-.00004	.00014	-.02522	-.00015	F -25.089	.00053
Stddev	.00849	.00003	.00006	.01349	.00053	30.922	.00034
%RSD	147.34	92.693	43.722	53.503	360.92	123.25	63.976
#1	.01202	-.00001	.00016	-.02580	-.00064	-55.048	.00086
#2	-.00390	-.00008	.00007	-.01145	.00041	-26.932	.00018
#3	.00916	-.00002	.00018	-.03842	-.00022	6.7139	.00056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007532 Acquired: 2/7/2012 18:16:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92646	.76558	F -41.760	.00112	-.00347	.02047	.00026
Stddev	11.234	.06630	1.435	.00180	.00100	.00090	.00012
%RSD	1212.6	8.6599	3.4360	161.14	28.905	4.3947	46.080
#1	6.8963	.69546	-43.310	.00133	-.00242	.02027	.00020
#2	7.9155	.77401	-40.479	-.00078	-.00442	.02145	.00040
#3	-12.032	.82725	-41.492	.00280	-.00356	.01968	.00018
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	-.00073	-.00121	-.00016	-.00071	F -.17826
Stddev	.00010	.00162	.00346	.00026	.00010	.17149
%RSD	71.956	223.39	286.50	163.26	14.498	96.205
#1	.00024	-.00260	-.00519	.00012	-.00078	-.34618
#2	.00014	.00008	.00098	-.00020	-.00077	-.18517
#3	.00004	.00033	.00060	-.00040	-.00059	-.00341
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20628.	17673.
Stddev	211.	75.
%RSD	1.0225	.42483
#1	20385.	17587.
#2	20735.	17701.
#3	20764.	17729.

Approved: February 08, 2012

Sample Name: L1202008601 Acquired: 2/7/2012 18:19:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00086	25.052	.00069	.09125	.09114	-.00002
Stddev	.00053	.109	.00055	.00187	.00084	.00003
%RSD	61.482	.43447	80.788	2.0478	.92575	171.47
#1	-.00145	25.041	.00132	.09339	.09195	-.00004
#2	-.00070	24.950	.00045	.09036	.09027	.00002
#3	-.00042	25.167	.00029	.08998	.09121	-.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.151	F -.00102	1.2922	.01711	.06096	2.6762
Stddev	.076	.00014	.0036	.00015	.00057	.0162
%RSD	.53873	13.411	.27618	.90559	.93000	.60582
#1	14.195	-.00087	1.2955	.01695	.06127	2.6862
#2	14.063	-.00104	1.2926	.01713	.06130	2.6575
#3	14.196	-.00114	1.2884	.01725	.06030	2.6850
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		16.200				
Low Limit		-.00050				

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.0803	2.5763	6.8394	.06200	.00870	F 340.75
Stddev	.0481	.0139	.0431	.00032	.00036	8.17
%RSD	1.5606	.54113	.63001	.51255	4.1790	2.3969
#1	3.0358	2.5920	6.8876	.06237	.00856	338.74
#2	3.0739	2.5655	6.8262	.06184	.00911	333.78
#3	3.1313	2.5714	6.8045	.06181	.00843	349.74
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						315.00
Low Limit						-.50000

Approved: February 08, 2012

Sample Name: L1202008601 Acquired: 2/7/2012 18:19:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.7081	F -121660.	.00378	F -1.4592	F 5781.9	F -305470.
Stddev	.0096	256.	.00089	3.2441	17.8	393.
%RSD	.16783	.21016	23.514	222.32	.30784	.12881
#1	5.7179	-121920.	.00286	-4.9925	5796.2	-305690.
#2	5.7077	-121630.	.00464	1.3850	5787.6	-305700.
#3	5.6987	-121410.	.00384	-.77020	5762.0	-305020.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00142	-.00096	2.1205	.00075	.14022	.00644
Stddev	.00208	.00317	.0085	.00008	.00083	.00030
%RSD	146.21	330.87	.40070	11.312	.58974	4.6175
#1	-.00148	.00214	2.1248	.00084	.14044	.00653
#2	.00068	-.00082	2.1259	.00067	.13930	.00667
#3	-.00348	-.00420	2.1107	.00074	.14090	.00610
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	-.00160	.00105	.60299	F -.11388
Stddev	.00131	.00018	.00031	.17276
%RSD	82.006	17.288	.05090	151.70
#1	-.00275	.00086	.60328	.07444
#2	-.00017	.00106	.60302	-.26501
#3	-.00188	.00123	.60267	-.15108
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Sample Name: L1202008601 Acquired: 2/7/2012 18:19:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20287.	17368.
Stddev	70.	122.
%RSD	.34681	.70498
#1	20209.	17271.
#2	20307.	17506.
#3	20346.	17329.

Approved: February 08, 2012

Sample Name: L1202008602 Acquired: 2/7/2012 18:23:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	21.702	.00068	.08220	.03762	-.00002
Stddev	.00091	.018	.00183	.00244	.00056	.00001
%RSD	230.30	.08321	271.32	2.9644	1.4891	72.224
#1	.00038	21.691	.00111	.08108	.03698	.00000
#2	-.00017	21.691	-.00134	.08053	.03791	-.00002
#3	-.00139	21.722	.00225	.08500	.03798	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.232	F -.00108	1.2338	.01269	.05296	.49794
Stddev	.022	.00013	.0030	.00051	.00071	.00509
%RSD	.13718	11.854	.24360	4.0411	1.3386	1.0230
#1	16.210	-.00122	1.2306	.01236	.05327	.49431
#2	16.255	-.00106	1.2342	.01244	.05215	.49575
#3	16.231	-.00097	1.2366	.01328	.05345	.50377
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		16.200				
Low Limit		-.00050				

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.8469	2.5204	8.0038	.06015	.00119	F 357.28
Stddev	.0383	.0020	.0604	.00053	.00018	1.03
%RSD	1.3461	.07916	.75446	.88634	15.091	.28732
#1	2.8278	2.5195	8.0045	.06076	.00129	356.15
#2	2.8219	2.5227	8.0638	.05989	.00130	357.53
#3	2.8910	2.5190	7.9430	.05980	.00098	358.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						315.00
Low Limit						-.50000

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008602 Acquired: 2/7/2012 18:23:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.9700**	F **-79766.**	**.00066**	**7.0181**	F **5611.5**	F **-299890.**
Stddev	.0071	91.	.00100	2.9970	27.3	1059.
%RSD	.14277	.11346	151.86	42.704	.48608	.35324
#1	4.9688	-79746.	.00011	7.2932	5582.8	-299970.
#2	4.9635	-79865.	.00182	3.8930	5637.1	-300900.
#3	4.9776	-79687.	.00006	9.8681	5614.7	-298780.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit		900.00			9.0000	9.0000
Low Limit		-.00400			-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00064**	**-.00304**	**1.6987**	**.00036**	**.14659**	**-.00044**
Stddev	.00156	.00226	.0059	.00017	.00023	.00140
%RSD	244.76	74.340	.34678	47.500	.15916	321.95
#1	-.00174	-.00045	1.7019	.00026	.14638	.00072
#2	.00115	-.00409	1.6919	.00026	.14684	-.00200
#3	-.00133	-.00458	1.7023	.00056	.14655	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	**-.00236**	**.00059**	**.54545**	F **-.27001**
Stddev	.00117	.00015	.00167	.24339
%RSD	49.669	26.006	.30530	90.140
#1	-.00315	.00043	.54501	-.00113
#2	-.00292	.00073	.54404	-.33363
#3	-.00101	.00061	.54729	-.47526
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Sample Name: L1202008602 Acquired: 2/7/2012 18:23:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20534.**	**17454.**
Stddev	347.	44.
%RSD	1.6881	.25163
#1	20733.	17455.
#2	20736.	17409.
#3	20134.	17497.

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 18:26:35 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40062	10.216	.39710	.49702	1.0022	.04944	10.149
Stddev	.00501	.020	.00136	.00493	.0032	.00022	.020
%RSD	1.2511	.19702	.34138	.99156	.31714	.45368	.19694
#1	.39768	10.206	.39861	.49335	1.0037	.04931	10.134
#2	.39778	10.240	.39670	.49508	1.0044	.04932	10.171
#3	.40641	10.204	.39599	.50262	.99860	.04970	10.141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04950	.19962	.50418	.50212	3.9947	51.180	1.0072
Stddev	.00025	.00074	.00340	.00085	.0049	.189	.0051
%RSD	.50421	.37109	.67377	.16987	.12281	.36988	.50701
#1	.04978	.20041	.50371	.50310	3.9928	51.305	1.0089
#2	.04940	.19895	.50104	.50156	4.0002	51.272	1.0113
#3	.04931	.19949	.50778	.50169	3.9909	50.962	1.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.060	.49620	1.0092	51.308	.50655	F -71.658	.50902
Stddev	.061	.00210	.0013	.027	.00051	39.488	.00280
%RSD	.60169	.42306	.12807	.05219	.10045	55.106	.55091
#1	10.080	.49707	1.0085	51.336	.50598	-104.07	.51215
#2	10.109	.49772	1.0107	51.283	.50694	-83.220	.50673
#3	9.9924	.49380	1.0084	51.303	.50674	-27.680	.50819
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 18:26:35 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11.944	10.261	10.111	1.1953	.39292	4.9607	1.0128
Stddev	8.986	.038	.611	.0027	.00103	.0150	.0010
%RSD	75.241	.37501	6.0398	.22326	.26328	.30156	.10341
#1	4.8068	10.217	10.535	1.1960	.39179	4.9774	1.0121
#2	22.035	10.289	9.4112	1.1923	.39316	4.9562	1.0123
#3	8.9886	10.277	10.387	1.1975	.39382	4.9485	1.0140
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000						
Range	10.000%						

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0052	.99164	.50857	.98839	1.0189	F .76992
Stddev	.0007	.00357	.00211	.00815	.0009	.05652
%RSD	.07242	.35960	.41581	.82416	.09038	7.3405
#1	1.0047	.99174	.50879	.98536	1.0181	.70877
#2	1.0060	.99515	.50635	.98219	1.0186	.82023
#3	1.0048	.98802	.51056	.99761	1.0199	.78077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20707.	17193.
Stddev	174.	211.
%RSD	.83908	1.2286
#1	20840.	17037.
#2	20771.	17108.
#3	20511.	17433.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 18:29:47 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	.00557	-.00025	.00296	.00026	-.00004	-.01870
Stddev	.00022	.02672	.00062	.00038	.00044	.00002	.01388
%RSD	25.756	480.07	248.29	13.008	172.35	65.257	74.213
#1	-.00083	.03117	.00046	.00287	.00014	-.00001	-.00419
#2	-.00065	-.02214	-.00070	.00263	.00075	-.00006	-.03185
#3	-.00109	.00767	-.00051	.00338	-.00011	-.00003	-.02007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00015	.00071	.00107	.00372	.11132	-.00200
Stddev	.00015	.00009	.00027	.00048	.00801	.05615	.00075
%RSD	303.06	63.697	38.121	44.855	215.44	50.441	37.551
#1	.00007	.00009	.00054	.00069	-.00527	.15774	-.00252
#2	.00000	.00026	.00103	.00161	.00633	.12733	-.00233
#3	-.00021	.00010	.00057	.00091	.01009	.04891	-.00114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00279	-.00023	.00064	.06474	-.00059	F -26.913	-.00062
Stddev	.00703	.00065	.00022	.01158	.00022	18.756	.00206
%RSD	251.61	283.25	33.911	17.882	37.854	69.691	330.93
#1	-.00676	-.00018	.00054	.06591	-.00070	-26.337	.00175
#2	-.00694	.00039	.00088	.07568	-.00033	-45.951	-.00199
#3	.00532	-.00091	.00049	.05262	-.00074	-8.4517	-.00162
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 18:29:47 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.042	F -.21645	F 11.359	-.00092	-.00266	.01300	.00066
Stddev	2.369	.01610	1.587	.00116	.00166	.00099	.00027
%RSD	23.594	7.4400	13.971	126.61	62.297	7.6095	41.195
#1	12.708	-.20230	10.265	-.00098	-.00246	.01413	.00064
#2	9.2391	-.23397	13.179	-.00204	-.00441	.01227	.00093
#3	8.1781	-.21308	10.633	.00028	-.00111	.01261	.00039
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00046	.00025	.00000	-.00048	-.08381
Stddev	.00010	.00103	.00093	.00021	.00007	.05021
%RSD	144.03	223.41	368.92	8800.1	13.555	59.909
#1	.00018	-.00076	-.00066	.00023	-.00041	-.09199
#2	-.00002	-.00131	.00121	-.00018	-.00053	-.12943
#3	.00005	.00068	.00021	-.00004	-.00051	-.03001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20799.	17048.
Stddev	101.	174.
%RSD	.48414	1.0219
#1	20913.	16860.
#2	20764.	17080.
#3	20721.	17204.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008603 Acquired: 2/7/2012 18:33:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	79.081	.00446	.24558	.26449	-.00003
Stddev	.00084	.141	.00125	.00130	.00112	.00004
%RSD	559.41	.17853	27.963	.53086	.42438	163.14
#1	-.00081	79.057	.00586	.24683	.26578	-.00001
#2	.00076	78.954	.00404	.24570	.26384	-.00008
#3	.00050	79.233	.00347	.24423	.26385	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.707	F -.00337	4.1227	.05286	.18721	7.5837
Stddev	.019	.00009	.0062	.00057	.00035	.0278
%RSD	.06291	2.7379	.14936	1.0696	.18913	.36633
#1	30.730	-.00339	4.1292	.05313	.18760	7.6155
#2	30.695	-.00326	4.1170	.05323	.18712	7.5714
#3	30.698	-.00344	4.1220	.05221	.18691	7.5642
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		16.200				
Low Limit		-.00050				

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.9063	3.5271	18.860	.19175	.01597	F 333.84
Stddev	.0972	.0108	.058	.00092	.00038	4.17
%RSD	1.0919	.30635	.30840	.48064	2.3589	1.2480
#1	8.8861	3.5393	18.922	.19264	.01585	329.05
#2	8.8208	3.5231	18.852	.19080	.01639	335.89
#3	9.0121	3.5188	18.807	.19180	.01567	336.58
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						315.00
Low Limit						-.50000

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008603 Acquired: 2/7/2012 18:33:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.565	F -368200.	.00851	F 16.063	F 5754.5	F -304020.
Stddev	.042	685.	.00167	1.787	13.0	92.
%RSD	.23809	.18602	19.633	11.127	.22597	.03031
#1	17.607	-368840.	.00664	15.542	5766.5	-304030.
#2	17.523	-367480.	.00987	14.594	5740.7	-303920.
#3	17.565	-368300.	.00901	18.053	5756.3	-304110.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00364	.00251	5.0570	.00230	.34897	.01638
Stddev	.00104	.00364	.0116	.00035	.00012	.00041
%RSD	28.535	144.66	.22883	15.238	.03482	2.4848
#1	-.00370	.00670	5.0696	.00215	.34903	.01600
#2	-.00257	.00010	5.0470	.00205	.34883	.01633
#3	-.00464	.00074	5.0543	.00270	.34905	.01681
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	-.01038	.00231	1.9036	F -.25983
Stddev	.00051	.00004	.0037	.11036
%RSD	4.9447	1.9220	.19434	42.473
#1	-.00992	.00228	1.9078	-.37685
#2	-.01028	.00229	1.9008	-.15763
#3	-.01093	.00236	1.9023	-.24502
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008603 Acquired: 2/7/2012 18:33:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20933.	18404.
Stddev	83.	98.
%RSD	.39529	.53477
#1	20841.	18334.
#2	20957.	18516.
#3	21002.	18361.

Approved: February 08, 2012

Sample Name: L1202008604 Acquired: 2/7/2012 18:36:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00053**	**55.286**	**.00219**	**.18324**	**.04905**	**-.00006**
Stddev	.00055	.154	.00122	.00073	.00068	.00001
%RSD	103.82	.27848	55.826	.39788	1.3918	21.304
#1	-.00071	55.124	.00223	.18407	.04929	-.00008
#2	.00009	55.304	.00095	.18271	.04828	-.00006
#3	-.00096	55.431	.00340	.18293	.04959	-.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**31.776**	F **-.00264**	**3.1526**	**.03078**	**.13445**	**1.3123**
Stddev	.052	.00019	.0033	.00089	.00022	.0027
%RSD	.16405	7.2149	.10388	2.8868	.16586	.20731
#1	31.775	-.00282	3.1559	.03170	.13468	1.3127
#2	31.724	-.00266	3.1493	.02993	.13443	1.3148
#3	31.828	-.00244	3.1526	.03071	.13423	1.3094
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		16.200				
Low Limit		-.00050				

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.3209**	**3.3502**	**18.028**	**.15229**	**.00230**	F **348.65**
Stddev	.0790	.0107	.013	.00093	.00013	2.75
%RSD	1.2496	.31783	.07427	.61360	5.8537	.78969
#1	6.2306	3.3567	18.015	.15148	.00229	350.58
#2	6.3549	3.3379	18.027	.15207	.00217	345.49
#3	6.3772	3.3560	18.042	.15331	.00244	349.87
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						315.00
Low Limit						-.50000

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008604 Acquired: 2/7/2012 18:36:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.594	F -202060.	.00251	F 9.2390	F 5488.9	F -293860.
Stddev	.008	177.	.00030	2.3599	17.4	163.
%RSD	.06159	.08771	11.868	25.542	.31621	.05559
#1	12.602	-202210.	.00249	9.1612	5497.0	-293980.
#2	12.586	-202100.	.00282	11.637	5468.9	-293680.
#3	12.593	-201860.	.00222	6.9190	5500.7	-293940.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	-.00252	3.3570	.00065	.30295	-.00260
Stddev	.00124	.00359	.0030	.00017	.00036	.00105
%RSD	278.11	142.50	.08860	26.259	.11781	40.378
#1	.00097	-.00199	3.3604	.00049	.30254	-.00288
#2	-.00135	.00078	3.3550	.00083	.30320	-.00144
#3	-.00096	-.00634	3.3554	.00064	.30311	-.00349
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	-.00588	.00071	1.3692	F -.21514
Stddev	.00073	.00042	.0023	.06484
%RSD	12.381	59.042	.16512	30.140
#1	-.00630	.00033	1.3697	-.24261
#2	-.00630	.00116	1.3711	-.26172
#3	-.00504	.00064	1.3667	-.14108
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008604 Acquired: 2/7/2012 18:36:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20718.	17766.
Stddev	56.	146.
%RSD	.27184	.82437
#1	20667.	17724.
#2	20709.	17928.
#3	20779.	17644.

Approved: February 08, 2012

Sample Name: L1202008605 Acquired: 2/7/2012 18:40:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00053**	**.34087**	**-.00111**	**.01254**	**.00319**	**-.00006**
Stddev	.00035	.04854	.00071	.00088	.00028	.00002
%RSD	66.406	14.240	63.837	7.0494	8.7025	25.313
#1	-.00034	.31824	-.00105	.01312	.00297	-.00004
#2	-.00031	.39659	-.00044	.01299	.00310	-.00008
#3	-.00094	.30777	-.00185	.01152	.00350	-.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.6268**	**-.00016**	**.02226**	**.00075**	**.00216**	**.04452**
Stddev	.0294	.00005	.00011	.00035	.00062	.00424
%RSD	.52216	31.295	.50370	47.518	28.786	9.5337
#1	5.6036	-.00012	.02219	.00097	.00227	.04864
#2	5.6169	-.00014	.02219	.00094	.00149	.04476
#3	5.6598	-.00021	.02239	.00034	.00272	.04016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1174**	**.58734**	**1.7140**	**.00146**	**.00246**	**114.98**
Stddev	.0249	.00314	.0073	.00095	.00014	.49
%RSD	2.2263	.53380	.42624	65.098	5.6219	.42509
#1	1.1085	.58950	1.7201	.00046	.00260	114.43
#2	1.0981	.58876	1.7059	.00235	.00232	115.15
#3	1.1455	.58374	1.7161	.00155	.00247	115.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008605 Acquired: 2/7/2012 18:40:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08393	F -2907.5	.00203	7.4592	F 1889.0	F -100010.
Stddev	.00012	32.0	.00083	6.7558	14.6	221.
%RSD	.13710	1.0989	40.770	90.571	.77245	.22129
#1	.08387	-2885.6	.00290	10.589	1902.7	-100240.
#2	.08406	-2944.2	.00193	-.29399	1890.5	-99986.
#3	.08386	-2892.8	.00125	12.082	1873.6	-99796.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit		900.00			9.0000	9.0000
Low Limit		-.00400			-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00070	-.00464	.70904	.00007	.03060	-.00042
Stddev	.00114	.00133	.00380	.00038	.00029	.00158
%RSD	163.65	28.695	.53597	506.05	.95192	377.21
#1	-.00054	-.00352	.71223	.00050	.03027	-.00190
#2	.00171	-.00429	.71006	-.00020	.03072	-.00061
#3	.00093	-.00611	.70484	-.00008	.03081	.00125
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	-.00084	.00015	.06652	F -.21701
Stddev	.00082	.00020	.00023	.15383
%RSD	97.276	133.22	.34521	70.884
#1	-.00163	.00020	.06633	-.39116
#2	-.00091	-.00007	.06678	-.09967
#3	.00001	.00032	.06647	-.16020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Sample Name: L1202008605 Acquired: 2/7/2012 18:40:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20483.**	**17743.**
Stddev	79.	128.
%RSD	.38627	.72387
#1	20525.	17610.
#2	20532.	17752.
#3	20392.	17866.

Approved: February 08, 2012

Sample Name: L1202009101 Acquired: 2/7/2012 18:43:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.02599	.00065	.02743	.02006	-.00003	31.677
Stddev	.00084	.01305	.00192	.00162	.00038	.00001	.129
%RSD	427.50	50.198	293.44	5.9110	1.8910	28.657	.40844
#1	.00045	.02419	.00060	.02665	.01997	-.00004	31.530
#2	-.00115	.03984	.00260	.02930	.02047	-.00002	31.772
#3	.00011	.01393	-.00124	.02635	.01973	-.00003	31.729
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00026	.00563	-.00010	.01878	2.2344	.01252
Stddev	.00012	.00013	.00045	.00015	.00350	.0135	.00504
%RSD	78.081	48.485	8.0258	158.99	18.635	.60411	40.274
#1	.00016	-.00038	.00513	-.00001	.01805	2.2258	.01830
#2	.00003	-.00028	.00575	-.00028	.02259	2.2500	.01019
#3	.00027	-.00013	.00600	.00000	.01571	2.2275	.00906
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.7710	.00078	.00509	26.575	.00012	F -28.523	.00111
Stddev	.0232	.00073	.00009	.181	.00037	11.018	.00196
%RSD	.61424	92.979	1.6728	.68163	314.22	38.629	177.05
#1	3.7445	.00023	.00504	26.383	.00007	-19.162	-.00112
#2	3.7811	.00160	.00504	26.743	-.00023	-25.742	.00257
#3	3.7874	.00052	.00519	26.597	.00051	-40.666	.00188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202009101 Acquired: 2/7/2012 18:43:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.3365	F 491.81	F -24033.	-.00001	-.00028	13.540	-.00009
Stddev	2.1760	3.79	71.	.00312	.00176	.049	.00038
%RSD	29.660	.77064	.29608	61290.	618.68	.36435	421.68
#1	7.8708	495.53	-24066.	-.00342	.00166	13.580	-.00023
#2	9.1955	487.95	-23952.	.00270	-.00074	13.485	-.00038
#3	4.9430	491.95	-24082.	.00070	-.00177	13.555	.00034
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24360	-.00143	-.00010	.00733	.01178	.02989
Stddev	.00160	.00151	.00061	.00034	.00005	.06857
%RSD	.65872	105.86	624.39	4.6813	.42927	229.41
#1	.24200	-.00313	.00046	.00760	.01177	-.03982
#2	.24521	-.00090	-.00075	.00746	.01174	.03223
#3	.24358	-.00025	-.00001	.00695	.01184	.09725
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	22422.	16915.
Stddev	252.	169.
%RSD	1.1243	.99794
#1	22619.	17088.
#2	22138.	16905.
#3	22509.	16751.

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 18:46:51 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41877	10.011	.40188	.52496	.99432	.05118	10.003
Stddev	.00572	.015	.00353	.00755	.00574	.00098	.037
%RSD	1.3647	.15259	.87741	1.4375	.57750	1.9113	.37232
#1	.41234	9.9992	.39785	.51668	.98772	.05011	9.9602
#2	.42327	10.007	.40343	.53145	.99814	.05203	10.030
#3	.42070	10.029	.40437	.52675	.99710	.05140	10.018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05037	.20101	.51922	.50460	3.9250	50.199	1.0039
Stddev	.00036	.00143	.00874	.00367	.0246	.101	.0066
%RSD	.71066	.70968	1.6834	.72644	.62785	.20059	.65329
#1	.04996	.19938	.50951	.50042	3.8982	50.095	.99662
#2	.05061	.20202	.52645	.50726	3.9301	50.296	1.0056
#3	.05055	.20163	.52170	.50613	3.9467	50.207	1.0094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.8412	.49053	1.0050	50.618	.50742	F -41.144	.51019
Stddev	.0569	.00215	.0090	.144	.00395	16.364	.00306
%RSD	.57827	.43868	.89376	.28406	.77929	39.772	.59919
#1	9.7761	.48805	.99500	50.453	.50285	-22.273	.50794
#2	9.8817	.49155	1.0078	50.715	.50968	-49.757	.50896
#3	9.8657	.49198	1.0123	50.687	.50973	-51.403	.51367
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 18:46:51 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.115	10.299	F 12.596	1.2120	.40475	5.0315	1.0121
Stddev	.545	.153	2.174	.0084	.00196	.0324	.0109
%RSD	2.7107	1.4838	17.259	.69174	.48301	.64407	1.0755
#1	19.501	10.126	15.103	1.2024	.40347	4.9941	.99956
#2	20.542	10.358	11.455	1.2177	.40700	5.0498	1.0190
#3	20.302	10.414	11.231	1.2160	.40379	5.0505	1.0178
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0003	.98370	.51437	1.0289	1.0137	F .80466
Stddev	.0040	.00685	.00561	.0180	.0094	.06903
%RSD	.39810	.69597	1.0911	1.7451	.93014	8.5792
#1	.99571	.97600	.50802	1.0089	1.0029	.82983
#2	1.0021	.98910	.51867	1.0436	1.0180	.72658
#3	1.0030	.98600	.51641	1.0344	1.0202	.85759
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21581.	19611.
Stddev	314.	116.
%RSD	1.4543	.59370
#1	21943.	19744.
#2	21414.	19525.
#3	21386.	19565.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 18:50:04 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00020**	**-.00317**	**-.00054**	**.00223**	**-.00012**	**-.00006**	**-.01133**
Stddev	.00066	.02080	.00087	.00036	.00014	.00002	.00334
%RSD	327.46	656.33	160.85	16.322	118.41	36.392	29.434
#1	.00007	.01527	.00046	.00226	.00001	-.00003	-.01365
#2	.00027	.00094	-.00103	.00185	-.00027	-.00006	-.00751
#3	-.00095	-.02571	-.00105	.00258	-.00009	-.00007	-.01284
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**-.00009**	**.00005**	**.00031**	**-.00119**	**.02105**	**.00214**
Stddev	.00003	.00029	.00058	.00075	.00449	.03136	.00418
%RSD	21.430	328.49	1189.3	244.27	377.23	148.93	194.92
#1	-.00015	.00010	.00021	-.00012	-.00573	.04521	.00602
#2	-.00016	.00006	.00053	-.00013	-.00110	.03233	.00268
#3	-.00010	-.00043	-.00059	.00117	.00325	-.01438	-.00228
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00222**	**-.00022**	**.00074**	**.07276**	**.00012**	F **-13.838**	**.00047**
Stddev	.01583	.00010	.00013	.01356	.00038	23.612	.00150
%RSD	713.97	46.342	17.750	18.641	320.61	170.63	316.57
#1	.01683	-.00015	.00072	.06509	-.00030	-40.315	-.00125
#2	-.01460	-.00034	.00062	.08842	.00021	5.0350	.00150
#3	.00441	-.00017	.00088	.06477	.00044	-6.2340	.00117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 18:50:04 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 4.7630	F -.21914	F 9.3576	.00009	-.00198	.00752	.00026
Stddev	10.776	.07216	2.7111	.00129	.00257	.00136	.00012
%RSD	226.25	32.930	28.972	1416.6	129.75	18.074	45.436
#1	-5.6765	-.15110	6.2342	.00114	-.00361	.00898	.00036
#2	15.847	-.21151	10.737	.00048	-.00330	.00628	.00013
#3	4.1188	-.29482	11.102	-.00135	.00098	.00731	.00028
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-.00043	-.00033	-.00004	-.00063	F -.16900
Stddev	.00012	.00089	.00073	.00015	.00006	.16576
%RSD	420.04	204.78	219.45	399.32	9.2252	98.085
#1	-.00003	-.00087	.00045	.00009	-.00069	-.33109
#2	.00016	-.00103	-.00100	.00000	-.00063	.00020
#3	-.00005	.00059	-.00045	-.00021	-.00057	-.17610
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21464.	18043.
Stddev	159.	72.
%RSD	.74036	.39725
#1	21503.	18125.
#2	21600.	18012.
#3	21289.	17992.

Approved: February 08, 2012

Sample Name: PBW 8T Acquired: 2/7/2012 18:53:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388934-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00059	.03341	-.00044	.00167	.00021	-.00007	-.01137
Stddev	.00037	.03407	.00028	.00168	.00018	.00002	.01788
%RSD	63.384	101.98	63.478	100.11	85.681	25.609	157.33
#1	-.00100	.05319	-.00060	.00351	.00035	-.00007	-.00833
#2	-.00027	-.00593	-.00060	.00128	.00028	-.00008	.00481
#3	-.00049	.05298	-.00012	.00023	.00001	-.00005	-.03057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.00070	.00008	.00025	-.00017	-.05010	.00505
Stddev	.00012	.00020	.00052	.00037	.00500	.02699	.00044
%RSD	155.85	28.378	634.10	149.52	2954.5	53.882	8.6796
#1	-.00002	-.00089	.00022	-.00010	-.00154	-.02526	.00536
#2	.00003	-.00049	-.00050	.00020	.00538	-.04621	.00455
#3	.00021	-.00073	.00053	.00063	-.00434	-.07882	.00523
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01027	-.00022	.00010	-.01010	-.00089	42.841	.00076
Stddev	.01646	.00008	.00020	.00926	.00075	14.417	.00069
%RSD	160.32	36.485	205.98	91.630	84.364	33.653	90.971
#1	-.00290	-.00015	-.00006	-.00639	-.00120	34.202	.00045
#2	.00498	-.00031	.00032	-.00328	-.00143	34.836	.00028
#3	.02872	-.00021	.00002	-.02064	-.00003	59.484	.00155
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: PBW 8T Acquired: 2/7/2012 18:53:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388934-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.73995	F -.30556	F 11.638	.00165	-.00032	.00879	.00021
Stddev	4.4181	.01163	2.082	.00028	.00242	.00120	.00015
%RSD	597.08	3.8072	17.890	16.716	753.25	13.681	70.709
#1	4.2154	-.29486	9.9534	.00142	-.00277	.01011	.00034
#2	-2.1675	-.31794	10.995	.00157	.00207	.00851	.00022
#3	-4.2678	-.30388	13.966	.00195	-.00027	.00775	.00005
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00021	-.00130	.00020	-.00112	F -.27557
Stddev	.00007	.00168	.00242	.00012	.00011	.10203
%RSD	35.763	796.67	185.24	58.056	9.8924	37.026
#1	.00018	.00010	-.00107	.00017	-.00100	-.18833
#2	.00014	.00194	-.00383	.00033	-.00122	-.38777
#3	.00027	-.00141	.00099	.00010	-.00113	-.25060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20985.	17184.
Stddev	126.	208.
%RSD	.60142	1.2122
#1	20840.	17405.
#2	21054.	17157.
#3	21063.	16991.

Approved: February 08, 2012

Sample Name: LCSW 8T Acquired: 2/7/2012 18:57:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388934-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19237	4.9237	.18403	.90366	.48640	.02346	4.8241
Stddev	.00086	.0111	.00123	.00782	.00182	.00011	.0160
%RSD	.44489	.22433	.66878	.86529	.37463	.45704	.33117
#1	.19332	4.9302	.18274	.91238	.48437	.02359	4.8160
#2	.19211	4.9299	.18519	.89727	.48691	.02338	4.8425
#3	.19167	4.9109	.18417	.90133	.48790	.02342	4.8138
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02351	.09780	.24841	.24386	1.9068	24.509	.49126
Stddev	.00013	.00029	.00193	.00143	.0160	.153	.00148
%RSD	.55293	.29505	.77658	.58613	.84109	.62550	.30144
#1	.02336	.09757	.25063	.24347	1.8918	24.335	.49201
#2	.02357	.09772	.24745	.24267	1.9050	24.622	.48956
#3	.02360	.09813	.24714	.24545	1.9237	24.570	.49222
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9066	.23765	.50135	25.137	.24823	18.627	.24625
Stddev	.0240	.00164	.00100	.146	.00066	2.970	.00210
%RSD	.48843	.69182	.19873	.57950	.26390	15.947	.85440
#1	4.8891	.23581	.50214	24.969	.24804	16.615	.24864
#2	4.8969	.23815	.50023	25.231	.24769	22.038	.24540
#3	4.9339	.23898	.50167	25.210	.24896	17.227	.24470
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: LCSW 8T Acquired: 2/7/2012 18:57:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388934-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.2851**	**4.7825**	F **13.028**	**.56224**	**.17835**	**2.4480**	**.00065**
Stddev	2.4584	.0529	.814	.00373	.00228	.0034	.00017
%RSD	74.833	1.1053	6.2466	.66317	1.2761	.13958	26.616
#1	2.9720	4.7453	13.690	.55895	.17699	2.4472	.00085
#2	5.8851	4.7593	13.274	.56147	.18098	2.4451	.00056
#3	.99837	4.8430	12.119	.56629	.17708	2.4518	.00055
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47969**	**.47319**	**.24696**	**.48735**	**.49151**	**.05296**
Stddev	.00373	.00328	.00108	.00306	.00136	.10569
%RSD	.77857	.69322	.43541	.62855	.27617	199.56
#1	.47544	.46941	.24816	.49074	.49144	.16062
#2	.48246	.47520	.24666	.48477	.49019	-.05065
#3	.48117	.47498	.24607	.48654	.49290	.04892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20473.**	**17008.**
Stddev	45.	24.
%RSD	.21784	.14050
#1	20479.	16992.
#2	20514.	17035.
#3	20425.	16996.

Approved: February 08, 2012

Erin D. Long

Sample Name: FBLK Acquired: 2/7/2012 19:00:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388639-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00057	-.00452	-.00168	.00380	.00038	-.00005	-.01897
Stddev	.00021	.03661	.00099	.00066	.00024	.00002	.01692
%RSD	36.204	810.00	58.635	17.326	62.724	47.265	89.221
#1	-.00046	.02515	-.00254	.00412	.00023	-.00005	-.02280
#2	-.00044	.00672	-.00190	.00423	.00025	-.00008	-.00046
#3	-.00081	-.04544	-.00060	.00304	.00065	-.00003	-.03364
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	-.00046	.00038	.00074	-.00056	.08830	.00012
Stddev	.00004	.00031	.00054	.00018	.00426	.05521	.00195
%RSD	160.38	67.037	144.26	24.524	767.98	62.523	1558.3
#1	.00001	-.00082	-.00011	.00082	-.00510	.03381	.00230
#2	-.00002	-.00025	.00097	.00086	.00007	.14420	-.00047
#3	-.00006	-.00031	.00027	.00053	.00336	.08688	-.00146
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02313	-.00055	-.00001	144.92	.00061	51.917	-.00111
Stddev	.00612	.00029	.00008	.33	.00073	8.666	.00124
%RSD	26.464	53.799	1246.8	.22676	119.07	16.692	111.37
#1	.01712	-.00021	.00006	144.81	.00103	57.820	-.00245
#2	.02936	-.00077	.00002	144.67	-.00023	41.968	.00001
#3	.02292	-.00066	-.00009	145.29	.00104	55.963	-.00091
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Sample Name: FBLK Acquired: 2/7/2012 19:00:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388639-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.0394**	F **-.43735**	F **12.556**	**-.00013**	**-.00122**	**.01796**	**.00313**
Stddev	4.1015	.06577	2.826	.00045	.00241	.00104	.00011
%RSD	51.017	15.037	22.505	355.74	198.14	5.8142	3.6628
#1	7.6210	-.43008	9.3810	.00024	-.00259	.01714	.00326
#2	12.334	-.50645	14.795	-.00063	-.00264	.01760	.00308
#3	4.1632	-.37552	13.493	.00001	.00157	.01913	.00305
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**-.00057**	**-.00258**	**-.00002**	**.00056**	F **-.20061**
Stddev	.00014	.00122	.00217	.00035	.00006	.12789
%RSD	54.142	214.25	84.109	2101.1	10.814	63.751
#1	.00012	.00001	-.00105	.00011	.00059	-.08682
#2	.00024	-.00197	-.00506	.00025	.00049	-.17599
#3	.00039	.00025	-.00162	-.00041	.00060	-.33902
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20784.**	**17331.**
Stddev	21.	28.
%RSD	.09946	.16172
#1	20772.	17361.
#2	20808.	17327.
#3	20773.	17305.

Approved: February 08, 2012

Erin D. Long

Sample Name: FBLK1 Acquired: 2/7/2012 19:03:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388895-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	.00599	-.00130	.00190	-.00033	-.00004	-.00472
Stddev	.00047	.01355	.00143	.00023	.00030	.00001	.00641
%RSD	88.715	226.11	110.73	12.136	90.730	26.722	135.90
#1	-.00104	.02038	-.00232	.00215	-.00061	-.00003	.00086
#2	-.00012	.00413	.00034	.00170	-.00037	-.00005	-.00329
#3	-.00043	-.00653	-.00190	.00184	-.00001	-.00005	-.01172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	-.00032	.00075	.00080	.00232	.06728	-.00091
Stddev	.00011	.00013	.00011	.00015	.00386	.03179	.00121
%RSD	129.46	40.846	15.265	19.296	166.64	47.245	132.40
#1	.00002	-.00032	.00086	.00089	.00079	.08959	-.00199
#2	.00022	-.00019	.00077	.00062	.00670	.03089	.00039
#3	.00002	-.00045	.00063	.00089	-.00055	.08138	-.00114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02018	.00011	-.00006	148.23	-.00007	28.703	.00050
Stddev	.00360	.00024	.00023	.22	.00027	14.646	.00087
%RSD	17.817	224.11	380.76	.14831	394.86	51.027	172.89
#1	.01616	-.00007	.00016	148.43	-.00035	39.130	.00121
#2	.02128	.00000	-.00003	148.26	.00019	11.958	.00075
#3	.02309	.00039	-.00031	148.00	-.00005	35.020	-.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: FBLK1 Acquired: 2/7/2012 19:03:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388895-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.9511**	F **-.37154**	**6.8362**	**.00043**	**-.00346**	**.01884**	**.00072**
Stddev	4.7136	.03354	2.7649	.00241	.00259	.00061	.00004
%RSD	52.660	9.0267	40.445	560.21	74.730	3.2497	5.0231
#1	12.109	-.40229	8.0518	.00321	-.00581	.01843	.00069
#2	3.5329	-.37655	8.7849	-.00084	-.00388	.01954	.00076
#3	11.212	-.33578	3.6717	-.00108	-.00069	.01854	.00070
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000					
Low Limit		-.00400					

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00022**	**-.00002**	**-.00006**	**.00024**	F **-.26833**
Stddev	.00007	.00191	.00057	.00005	.00013	.37707
%RSD	53.370	876.30	2620.9	89.387	55.652	140.52
#1	.00008	-.00058	.00055	-.00009	.00015	-.40051
#2	.00010	-.00116	-.00003	.00000	.00039	.15703
#3	.00020	.00240	-.00059	-.00008	.00017	-.56151
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20805.**	**17848.**
Stddev	116.	252.
%RSD	.55679	1.4093
#1	20819.	18125.
#2	20913.	17785.
#3	20683.	17634.

Approved: February 08, 2012

Sample Name: FBLK2 Acquired: 2/7/2012 19:07:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388895-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	.04805	-.00024	.00066	-.00009	-.00004	.09432
Stddev	.00026	.01872	.00061	.00032	.00022	.00003	.00670
%RSD	85.694	38.959	257.28	49.156	251.94	78.702	7.0991
#1	-.00016	.06681	-.00094	.00090	.00006	-.00005	.09322
#2	-.00015	.04798	.00012	.00080	.00002	-.00006	.10150
#3	-.00061	.02937	.00011	.00029	-.00034	.00000	.08825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	-.00031	.00049	.00076	.05657	.02835	.00210
Stddev	.00005	.00019	.00056	.00036	.00386	.02110	.00142
%RSD	287.73	59.921	114.31	46.860	6.8174	74.431	67.397
#1	-.00007	-.00012	.00070	.00059	.06091	.05131	.00305
#2	.00000	-.00033	-.00015	.00117	.05525	.00982	.00047
#3	.00002	-.00049	.00093	.00052	.05354	.02392	.00279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04891	.00118	.00001	.11186	-.00015	12.209	.00080
Stddev	.01520	.00062	.00033	.00723	.00040	24.869	.00099
%RSD	31.077	52.682	2610.1	6.4606	261.90	203.70	124.67
#1	.05967	.00143	-.00034	.11145	-.00008	36.090	.00162
#2	.05554	.00047	.00006	.11928	-.00058	14.078	.00107
#3	.03152	.00163	.00032	.10484	.00021	-13.543	-.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Erin D. Long

Sample Name: FBLK2 Acquired: 2/7/2012 19:07:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388895-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 14.367	.32779	F -20.823	.00113	.00078	.09398	.00035
Stddev	3.187	.04876	2.152	.00171	.00189	.00127	.00018
%RSD	22.179	14.875	10.334	152.19	242.76	1.3551	51.679
#1	12.991	.36011	-22.943	.00300	-.00124	.09327	.00015
#2	12.100	.35156	-20.884	.00073	.00106	.09545	.00051
#3	18.011	.27171	-18.641	-.00036	.00251	.09322	.00039
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00066	.00160	-.00282	.00012	.00082	F -.05325
Stddev	.00011	.00094	.00063	.00028	.00004	.21252
%RSD	17.085	58.926	22.505	243.38	4.5778	399.10
#1	.00079	.00254	-.00322	.00021	.00085	-.08166
#2	.00057	.00066	-.00209	-.00020	.00078	.17205
#3	.00063	.00160	-.00315	.00033	.00083	-.25014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21848.	18642.
Stddev	97.	339.
%RSD	.44308	1.8197
#1	21927.	18485.
#2	21878.	19031.
#3	21740.	18409.

Approved: February 08, 2012

Sample Name: L1202003901 Acquired: 2/7/2012 19:10:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	-.02102	-.00022	.04275	.10750	-.00004	55.972
Stddev	.00038	.02325	.00106	.00043	.00034	.00002	.103
%RSD	122.18	110.60	474.86	1.0169	.31632	41.010	.18354
#1	-.00063	.00558	-.00141	.04237	.10769	-.00003	55.861
#2	.00010	-.03117	.00013	.04322	.10711	-.00003	55.991
#3	-.00040	-.03748	.00061	.04264	.10771	-.00006	56.064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00220	.00001	.01147	.00038	.02605	.21870	.00887
Stddev	.00009	.00027	.00044	.00015	.00490	.02065	.00189
%RSD	4.1420	3416.5	3.8543	39.568	18.818	9.4441	21.323
#1	.00218	.00007	.01189	.00047	.03166	.24121	.01070
#2	.00230	.00024	.01152	.00046	.02393	.20062	.00692
#3	.00212	-.00028	.01101	.00021	.02257	.21427	.00900
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.91125	.23545	-.00020	150.48	.00194	23.443	.00320
Stddev	.01593	.00032	.00006	.13	.00024	23.132	.00101
%RSD	1.7479	.13408	28.648	.08695	12.342	98.675	31.499
#1	.91389	.23574	-.00025	150.34	.00201	8.7648	.00435
#2	.92570	.23511	-.00021	150.60	.00168	11.455	.00249
#3	.89417	.23550	-.00014	150.50	.00214	50.108	.00275
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: February 08, 2012

Sample Name: L1202003901 Acquired: 2/7/2012 19:10:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.3324**	F **58.535**	F **-130.42**	**-.00553**	**-.00096**	**1.1462**	**.00056**
Stddev	6.1730	.116	2.06	.00014	.00208	.0051	.00021
%RSD	142.48	.19744	1.5770	2.4562	216.85	.44610	38.173
#1	10.129	58.661	-132.16	-.00552	.00095	1.1520	.00051
#2	5.0258	58.435	-128.15	-.00540	-.00318	1.1426	.00037
#3	-2.1580	58.509	-130.93	-.00567	-.00065	1.1440	.00079
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05753**	**-.00180**	**-.00129**	**.00021**	**14.478**	F **-.21507**
Stddev	.00014	.00040	.00053	.00016	.040	.08189
%RSD	.24745	22.222	40.810	74.003	.27780	38.075
#1	.05740	-.00134	-.00107	.00032	14.487	-.12658
#2	.05751	-.00209	-.00189	.00029	14.513	-.28817
#3	.05768	-.00196	-.00091	.00003	14.434	-.23047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21257.**	**18496.**
Stddev	45.	170.
%RSD	.21052	.91963
#1	21268.	18403.
#2	21208.	18692.
#3	21295.	18392.

Approved: February 08, 2012

Sample Name: L1202006401 Acquired: 2/7/2012 19:13:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00057	.08918	-.00043	.03915	.17686	-.00003	328.98
Stddev	.00031	.02408	.00143	.00055	.00078	.00002	1.66
%RSD	54.297	27.001	333.31	1.3942	.43943	75.604	.50575
#1	-.00029	.11451	-.00190	.03886	.17611	-.00003	327.45
#2	-.00090	.08645	-.00034	.03978	.17682	-.00005	328.74
#3	-.00052	.06658	.00095	.03880	.17766	-.00001	330.75
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00045	.00147	.00144	.22741	190.47	.03575
Stddev	.00015	.00018	.00027	.00085	.00246	.86	.00429
%RSD	350.01	39.707	18.555	59.072	1.0824	.44920	12.010
#1	-.00003	-.00054	.00120	.00126	.23025	189.78	.03365
#2	-.00006	-.00025	.00174	.00237	.22597	190.20	.03291
#3	.00022	-.00057	.00147	.00070	.22601	191.42	.04069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08941	.00422	.00245	228.95	.00019	F -288.01	.00913
Stddev	.01057	.00016	.00014	14.54	.00059	18.43	.00103
%RSD	11.820	3.7496	5.6483	6.3499	312.84	6.3988	11.264
#1	.10064	.00408	.00260	212.19	-.00030	-286.02	.01021
#2	.07965	.00420	.00241	236.54	.00003	-307.35	.00816
#3	.08795	.00439	.00233	238.13	.00084	-270.66	.00901
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202006401 Acquired: 2/7/2012 19:13:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 23.760	F 356.15	F -1998.2	.00048	.07359	.16001	.00008
Stddev	5.649	1.31	8.5	.00262	.00207	.00240	.00010
%RSD	23.777	.36888	.42786	542.99	2.8078	1.5000	126.54
#1	29.998	355.81	-1991.1	.00340	.07234	.15823	.00001
#2	22.295	355.05	-1995.8	-.00032	.07245	.15906	.00004
#3	18.987	357.60	-2007.7	-.00164	.07598	.16274	.00020
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.37801	-.00749	-.00158	.00010	.01526	F -.35937
Stddev	.00130	.00030	.00168	.00013	.00013	.39874
%RSD	.34507	4.0322	105.92	125.80	.87142	110.96
#1	.37735	-.00715	-.00262	.00023	.01518	-.79152
#2	.37716	-.00762	-.00249	-.00003	.01518	-.00572
#3	.37951	-.00770	.00035	.00011	.01541	-.28086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20133.	19182.
Stddev	21.	303.
%RSD	.10649	1.5787
#1	20126.	19479.
#2	20157.	19193.
#3	20115.	18874.

Approved: February 08, 2012

Sample Name: L1202006401PS Acquired: 2/7/2012 19:17:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388967-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18995	4.8640	.18863	.94150	.63167	.02324	305.95
Stddev	.00229	.0410	.00326	.00986	.00164	.00024	1.05
%RSD	1.2047	.84187	1.7305	1.0471	.25930	1.0119	.34188
#1	.18879	4.8224	.19237	.93814	.63348	.02326	305.09
#2	.19258	4.8651	.18720	.95260	.63124	.02346	307.11
#3	.18847	4.9043	.18634	.93377	.63029	.02299	305.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02382	.09310	.23746	.23449	2.0387	197.83	.50506
Stddev	.00003	.00031	.00211	.00027	.0114	.52	.00147
%RSD	.11048	.32961	.89004	.11376	.55772	.26100	.29124
#1	.02381	.09282	.23699	.23476	2.0516	197.51	.50660
#2	.02385	.09343	.23977	.23423	2.0299	198.43	.50490
#3	.02381	.09306	.23563	.23446	2.0348	197.55	.50367
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.6583	.23397	.49438	237.59	.23601	F -283.40	.23931
Stddev	.0130	.00123	.00100	3.73	.00051	20.95	.00020
%RSD	.27952	.52722	.20322	1.5707	.21437	7.3913	.08346
#1	4.6528	.23314	.49391	233.34	.23543	-289.32	.23950
#2	4.6732	.23539	.49370	239.14	.23621	-260.13	.23911
#3	4.6490	.23339	.49554	240.30	.23638	-300.74	.23932
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202006401PS Acquired: 2/7/2012 19:17:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388967-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.743	F 327.19	F -1824.5	.56011	.25084	2.6358	.00133
Stddev	4.259	.51	6.2	.00380	.00356	.0044	.00010
%RSD	20.531	.15698	.34116	.67882	1.4211	.16846	7.8708
#1	15.880	326.61	-1824.0	.55894	.24853	2.6320	.00143
#2	22.542	327.57	-1818.5	.55703	.25495	2.6407	.00132
#3	23.808	327.40	-1830.9	.56436	.24905	2.6346	.00123
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.81474	.45999	.22296	.47666	.49826	.15090
Stddev	.00324	.00119	.00121	.00553	.00071	.13686
%RSD	.39819	.25788	.54382	1.1598	.14278	90.695
#1	.81109	.45939	.22287	.47646	.49744	.13631
#2	.81728	.46135	.22421	.48229	.49871	.29447
#3	.81585	.45922	.22179	.47124	.49862	.02192
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20200.	17657.
Stddev	104.	103.
%RSD	.51602	.58193
#1	20161.	17574.
#2	20121.	17625.
#3	20318.	17772.

Approved: February 08, 2012

Sample Name: L1202006401SDL Acquired: 2/7/2012 19:20:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388967-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00087	.00969	.00019	.01224	.03620	.00000	68.869
Stddev	.00083	.02739	.00174	.00040	.00017	.0000	.217
%RSD	95.929	282.57	936.48	3.2339	.48038	232.69	.31567
#1	-.00103	-.02099	.00198	.01261	.03635	.00001	68.655
#2	-.00161	.01840	.00006	.01228	.03624	-.00001	68.863
#3	.00003	.03167	-.00148	.01182	.03601	-.00001	69.089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	-.00033	.00140	.00130	.04707	39.907	.00689
Stddev	.00017	.00005	.00066	.00069	.00705	.122	.00161
%RSD	1682.9	14.224	46.898	53.347	14.985	.30479	23.303
#1	-.00002	-.00034	.00065	.00207	.03980	39.778	.00702
#2	-.00018	-.00036	.00184	.00072	.05389	39.921	.00842
#3	.00017	-.00027	.00172	.00111	.04751	40.020	.00522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01324	.00095	.00052	50.237	-.00053	F -102.54	.00206
Stddev	.01312	.00042	.00021	.197	.00056	22.00	.00197
%RSD	99.067	44.267	40.392	.39234	105.62	21.456	95.652
#1	.02829	.00143	.00033	50.059	-.00009	-110.08	.00227
#2	.00424	.00073	.00049	50.203	-.00033	-77.764	.00391
#3	.00719	.00068	.00074	50.449	-.00115	-119.79	-.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202006401SDL Acquired: 2/7/2012 19:20:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388967-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.207	F 79.100	F -399.88	.00163	.01483	.04090	.00143
Stddev	1.131	.076	2.55	.00081	.00132	.00146	.00041
%RSD	7.4374	.09639	.63776	49.816	8.8893	3.5588	28.384
#1	16.389	79.148	-397.28	.00132	.01371	.04185	.00126
#2	15.099	79.141	-402.37	.00256	.01450	.04162	.00189
#3	14.134	79.013	-399.97	.00102	.01628	.03922	.00114
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07891	-.00097	.00092	.00009	.00327	F -.21077
Stddev	.00035	.00116	.00062	.00017	.00009	.09727
%RSD	.43781	120.40	67.181	190.89	2.8776	46.152
#1	.07853	.00003	.00079	.00012	.00316	-.28189
#2	.07903	-.00224	.00158	.00024	.00329	-.25049
#3	.07919	-.00069	.00037	-.00009	.00335	-.09992
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20623.	17619.
Stddev	60.	111.
%RSD	.29058	.62753
#1	20691.	17708.
#2	20577.	17655.
#3	20602.	17495.

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 19:24:26 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40931	10.439	.40707	.51113	1.0200	.05020	10.317
Stddev	.00366	.062	.00096	.00446	.0086	.00045	.089
%RSD	.89496	.59662	.23681	.87228	.83785	.89744	.86065
#1	.40577	10.395	.40748	.50740	1.0112	.04992	10.252
#2	.41308	10.412	.40596	.51607	1.0207	.05072	10.281
#3	.40910	10.510	.40775	.50992	1.0282	.04997	10.418
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05118	.20513	.51289	.51462	4.0603	52.007	1.0313
Stddev	.00017	.00070	.00516	.00146	.0430	.390	.0064
%RSD	.33333	.33948	1.0065	.28340	1.0596	.75004	.62300
#1	.05131	.20470	.50942	.51600	4.0140	51.660	1.0254
#2	.05099	.20474	.51882	.51475	4.0680	51.933	1.0303
#3	.05125	.20593	.51044	.51310	4.0990	52.429	1.0381
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.252	.50631	1.0290	52.196	.51755	F .70149	.51806
Stddev	.086	.00348	.0025	.416	.00094	29.467	.00048
%RSD	.84122	.68694	.24022	.79625	.18204	4200.7	.09318
#1	10.178	.50328	1.0317	51.842	.51862	-33.271	.51775
#2	10.232	.50553	1.0268	52.093	.51685	19.340	.51861
#3	10.347	.51011	1.0284	52.654	.51718	16.036	.51781
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 19:24:26 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 8.6034	10.394	F 19.433	1.2359	.40720	5.0945	1.0352
Stddev	3.4784	.122	2.916	.0029	.00176	.0058	.0049
%RSD	40.431	1.1764	15.006	.23489	.43272	.11432	.47686
#1	4.7976	10.514	16.296	1.2343	.40803	5.0902	1.0391
#2	11.618	10.270	19.942	1.2340	.40839	5.0922	1.0370
#3	9.3945	10.399	22.062	1.2392	.40518	5.1011	1.0297
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	-10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0267	1.0118	.52436	1.0072	1.0338	F .84227
Stddev	.0085	.0084	.00057	.0085	.0014	.23471
%RSD	.82487	.83464	.10831	.84485	.13357	27.866
#1	1.0201	1.0027	.52425	1.0010	1.0351	1.0767
#2	1.0237	1.0134	.52386	1.0169	1.0323	.60724
#3	1.0362	1.0194	.52498	1.0037	1.0338	.84293
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20707.	17392.
Stddev	81.	84.
%RSD	.39233	.48226
#1	20766.	17451.
#2	20614.	17430.
#3	20740.	17296.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 19:27:38 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00059	-.01572	.00073	.00304	.00040	-.00004	-.02944
Stddev	.00067	.01922	.00177	.00079	.00018	.00001	.01868
%RSD	112.99	122.24	241.70	25.816	46.378	31.431	63.427
#1	-.00005	-.00315	.00204	.00279	.00056	-.00003	-.03438
#2	-.00134	-.00617	.00144	.00241	.00020	-.00005	-.04515
#3	-.00038	-.03784	-.00128	.00392	.00043	-.00005	-.00880
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	-.00021	.00045	.00122	.00307	.16328	.00856
Stddev	.00016	.00010	.00028	.00006	.00907	.05437	.00121
%RSD	117.96	49.415	61.715	5.1834	295.55	33.300	14.081
#1	.00003	-.00027	.00039	.00116	-.00606	.17949	.00820
#2	-.00016	-.00026	.00076	.00121	.00319	.10265	.00758
#3	-.00028	-.00009	.00021	.00129	.01207	.20770	.00991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00389	.00017	.00074	.06697	-.00138	F -19.656	-.00075
Stddev	.01953	.00043	.00051	.00375	.00051	37.925	.00214
%RSD	501.47	253.93	68.849	5.5988	36.924	192.95	287.47
#1	-.01824	-.00014	.00041	.06702	-.00173	24.134	.00159
#2	.01125	.00066	.00132	.07069	-.00161	-41.947	-.00261
#3	.01867	-.00001	.00048	.06320	-.00079	-41.154	-.00121
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 19:27:38 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.85849	F -.36007	F 16.307	.00011	-.00203	.00575	.00055
Stddev	1.7581	.03081	3.314	.00186	.00179	.00083	.00021
%RSD	204.79	8.5574	20.321	1649.9	88.074	14.399	38.866
#1	-1.7138	-.35516	19.490	-.00022	-.00396	.00498	.00040
#2	-2.0253	-.33201	12.876	-.00156	-.00042	.00564	.00079
#3	1.1636	-.39305	16.556	.00212	-.00171	.00663	.00046
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	-.00051	.00055	-.00015	-.00036	F -.21576
Stddev	.00008	.00112	.00048	.00028	.00016	.10207
%RSD	32.583	220.62	88.143	183.68	45.293	47.307
#1	.00025	-.00146	.00103	-.00013	-.00041	-.14339
#2	.00016	-.00078	.00007	.00012	-.00050	-.33251
#3	.00032	.00072	.00053	-.00044	-.00018	-.17139
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20363.	17049.
Stddev	39.	172.
%RSD	.19047	1.0075
#1	20406.	17211.
#2	20330.	17067.
#3	20354.	16869.

Approved: February 08, 2012

Sample Name: L1202006701 Acquired: 2/7/2012 19:31:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	.29220	-.00083	.09881	.19896	-.00001	23.463
Stddev	.00045	.03009	.00190	.00181	.00246	.00001	.166
%RSD	53.299	10.298	228.11	1.8273	1.2346	205.82	.70701
#1	-.00044	.32200	.00083	.09689	.19614	.00000	23.274
#2	-.00132	.26183	-.00043	.09908	.20063	.00000	23.585
#3	-.00075	.29276	-.00291	.10047	.20012	-.00002	23.531
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00046	.00244	.00606	.48687	.92648	.00718
Stddev	.00007	.00017	.00018	.00038	.00473	.03328	.00084
%RSD	60.017	37.872	7.4992	6.1890	.97195	3.5916	11.718
#1	.00013	.00060	.00226	.00650	.48487	.91112	.00738
#2	.00004	.00051	.00263	.00585	.48347	.90366	.00791
#3	.00017	.00026	.00242	.00584	.49227	.96466	.00626
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.61122	.03729	.00285	144.27	.00297	F -32.144	.01756
Stddev	.00837	.00052	.00019	.95	.00027	40.190	.00066
%RSD	1.3691	1.3914	6.5372	.66101	9.1222	125.03	3.7865
#1	.60235	.03683	.00268	143.18	.00266	-16.245	.01798
#2	.61897	.03717	.00282	144.93	.00314	-2.3354	.01679
#3	.61233	.03785	.00305	144.70	.00312	-77.851	.01791
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202006701 Acquired: 2/7/2012 19:31:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.8835	F 37.942	F -738.42	.00165	.00163	.45806	.00045
Stddev	5.3820	.146	4.77	.00090	.00076	.00366	.00042
%RSD	68.268	.38498	.64658	54.295	46.588	.79854	91.748
#1	3.1918	37.777	-733.37	.00253	.00133	.45419	.00035
#2	13.759	38.054	-739.02	.00169	.00249	.46146	.00010
#3	6.7000	37.997	-742.87	.00074	.00107	.45853	.00091
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10809	.00144	-.00123	.00081	.04599	F -.08464
Stddev	.00088	.00140	.00100	.00054	.00029	.12031
%RSD	.81001	97.467	81.223	66.308	.62891	142.14
#1	.10711	.00039	-.00235	.00108	.04567	.05422
#2	.10878	.00089	-.00042	.00019	.04610	-.15756
#3	.10839	.00303	-.00092	.00116	.04622	-.15057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20659.	17524.
Stddev	271.	30.
%RSD	1.3137	.17216
#1	20970.	17551.
#2	20536.	17492.
#3	20470.	17531.

Approved: February 08, 2012

Sample Name: L1202007902 Acquired: 2/7/2012 19:34:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	.09592	-.00069	.08983	.16718	-.00001	59.014
Stddev	.00063	.04230	.00142	.00091	.00045	.00001	.201
%RSD	246.05	44.104	206.25	1.0179	.26860	52.311	.34092
#1	-.00010	.04922	.00029	.09000	.16670	-.00001	59.246
#2	-.00094	.10687	-.00231	.09064	.16758	-.00002	58.882
#3	.00028	.13167	-.00004	.08884	.16726	-.00001	58.915
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00150	.00153	.00110	.16360	1.5980	.00806
Stddev	.00007	.00005	.00032	.00075	.00372	.0147	.00219
%RSD	48.464	3.2228	21.300	67.839	2.2762	.91889	27.233
#1	.00007	.00145	.00124	.00158	.16553	1.6044	.00799
#2	.00021	.00150	.00188	.00148	.16597	1.5812	.00589
#3	.00014	.00154	.00146	.00024	.15931	1.6084	.01028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9153	.32387	.00189	145.26	.00597	F -115.88	.00143
Stddev	.0089	.00153	.00016	.53	.00073	11.25	.00132
%RSD	.46412	.47386	8.6249	.36750	12.232	9.7085	92.159
#1	1.9223	.32211	.00171	145.77	.00671	-105.71	-.00008
#2	1.9053	.32453	.00194	144.71	.00525	-127.96	.00202
#3	1.9183	.32496	.00202	145.31	.00595	-113.98	.00235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202007902 Acquired: 2/7/2012 19:34:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 13.006	F 114.52	F -2857.3	.00240	.00050	2.5796	.00000
Stddev	.950	.74	7.4	.00145	.00140	.0072	.0002
%RSD	7.3023	.64397	.25950	60.120	280.23	.27868	15537.
#1	13.703	114.92	-2848.7	.00087	.00052	2.5856	.00007
#2	13.391	114.97	-2861.7	.00374	-.00091	2.5815	-.00024
#3	11.925	113.67	-2861.4	.00260	.00189	2.5716	.00016
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51496	.00327	-.00069	.00083	.02330	.07754
Stddev	.00165	.00074	.00042	.00012	.00018	.03499
%RSD	.32134	22.489	60.429	14.249	.79301	45.125
#1	.51567	.00307	-.00043	.00097	.02349	.07927
#2	.51307	.00409	-.00047	.00075	.02312	.04171
#3	.51615	.00266	-.00117	.00078	.02331	.11163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20883.	17448.
Stddev	379.	200.
%RSD	1.8127	1.1488
#1	20574.	17322.
#2	20772.	17341.
#3	21305.	17679.

Approved: February 08, 2012

Sample Name: L1202008002 Acquired: 2/7/2012 19:37:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388934-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.51386	.00001	.08797	.08846	-.00004	4.1768
Stddev	.00067	.01252	.00075	.00092	.00055	.00001	.0073
%RSD	239.11	2.4367	7210.4	1.0403	.61931	26.183	.17606
#1	.00035	.52831	-.00083	.08787	.08909	-.00003	4.1811
#2	-.00097	.50617	.00062	.08893	.08810	-.00005	4.1809
#3	-.00021	.50711	.00024	.08710	.08819	-.00004	4.1683
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01180	.01693	.03445	.00791	.67743	.69031	.00293
Stddev	.00007	.00021	.00060	.00019	.00332	.01995	.00106
%RSD	.60244	1.2528	1.7315	2.3479	.48985	2.8900	36.058
#1	.01188	.01709	.03513	.00808	.67661	.70716	.00409
#2	.01174	.01669	.03413	.00793	.67459	.66828	.00201
#3	.01178	.01701	.03407	.00771	.68108	.69549	.00270
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28114	.06710	.00007	150.38	.00195	F -43.878	4.8051
Stddev	.00841	.00020	.00018	.59	.00033	34.218	.0054
%RSD	2.9924	.30133	261.64	.39044	16.792	77.985	.11234
#1	.27898	.06717	-.00010	151.02	.00160	-65.579	4.8075
#2	.27403	.06725	.00005	150.27	.00201	-4.4323	4.8090
#3	.29043	.06687	.00026	149.86	.00225	-61.623	4.7990
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008002 Acquired: 2/7/2012 19:37:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388934-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 14.407	F 63.620	F -3105.3	.00039	.00046	.24589	.00069
Stddev	6.595	.304	6.1	.00313	.00304	.00487	.00022
%RSD	45.782	.47749	.19748	811.80	657.97	1.9806	31.831
#1	14.159	63.589	-3110.6	.00007	-.00199	.25114	.00050
#2	21.122	63.333	-3098.6	.00367	-.00048	.24499	.00064
#3	7.9382	63.938	-3106.8	-.00257	.00386	.24152	.00093
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00703	.00201	-.00266	.00043	44.828	F -.03157
Stddev	.00006	.00077	.00107	.00020	.365	.13034
%RSD	.81915	38.407	40.295	47.894	.81517	412.87
#1	.00700	.00214	-.00147	.00023	45.028	-.18185
#2	.00710	.00118	-.00297	.00040	45.050	.03632
#3	.00699	.00270	-.00355	.00064	44.406	.05082
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21291.	17947.
Stddev	176.	151.
%RSD	.82823	.84226
#1	21103.	17799.
#2	21317.	17940.
#3	21453.	18101.

Approved: February 08, 2012

Sample Name: L1202008002S Acquired: 2/7/2012 19:41:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388934-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19607	5.7602	.19111	1.0190	.58237	.02418	8.9740
Stddev	.00275	.0438	.00146	.0160	.00180	.00035	.0201
%RSD	1.4021	.76056	.76599	1.5744	.30934	1.4492	.22441
#1	.19908	5.7974	.19191	1.0366	.58414	.02458	8.9860
#2	.19371	5.7119	.18942	1.0053	.58053	.02391	8.9508
#3	.19541	5.7714	.19200	1.0149	.58243	.02407	8.9854
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03566	.11604	.28412	.25310	2.7727	25.412	.49438
Stddev	.00019	.00043	.00513	.00145	.0181	.058	.00076
%RSD	.52240	.37442	1.8060	.57121	.65409	.22688	.15406
#1	.03579	.11630	.28987	.25429	2.7742	25.360	.49483
#2	.03545	.11554	.28001	.25149	2.7539	25.403	.49350
#3	.03574	.11628	.28248	.25353	2.7901	25.474	.49481
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1478	.32260	.50551	172.46	.25093	F -95.973	4.8646
Stddev	.0323	.00137	.00169	.73	.00093	27.242	.0334
%RSD	.62711	.42533	.33433	.42497	.36928	28.385	.68708
#1	5.1284	.32330	.50493	172.82	.25132	-65.449	4.8959
#2	5.1301	.32102	.50419	171.62	.24987	-117.82	4.8294
#3	5.1851	.32348	.50742	172.95	.25159	-104.65	4.8686
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008002S Acquired: 2/7/2012 19:41:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388934-04

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 17.061	F 66.707	F -2986.8	.57141	.18432	2.9339	.00110
Stddev	4.737	.176	10.1	.00328	.00276	.0071	.00015
%RSD	27.764	.26428	.33895	.57457	1.4991	.24251	13.961
#1	15.453	66.781	-2998.4	.57501	.18242	2.9385	.00104
#2	13.337	66.505	-2981.8	.56858	.18304	2.9257	.00099
#3	22.392	66.833	-2980.1	.57064	.18749	2.9375	.00128
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49711	.49250	.24151	.49770	44.166	3.4454
Stddev	.00198	.00280	.00187	.00648	.974	.1517
%RSD	.39752	.56812	.77305	1.3017	2.2046	4.4039
#1	.49830	.49476	.23938	.50457	44.897	3.6177
#2	.49482	.48937	.24287	.49170	43.061	3.3872
#3	.49820	.49337	.24228	.49683	44.540	3.3314
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20818.	18073.
Stddev	309.	70.
%RSD	1.4855	.38456
#1	20495.	18132.
#2	21111.	18092.
#3	20850.	17996.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008002SD Acquired: 2/7/2012 19:44:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388934-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19226	5.4630	.18787	1.0063	.58318	.02387	8.8969
Stddev	.00200	.0289	.00195	.0144	.00518	.00018	.0785
%RSD	1.0383	.52844	1.0367	1.4326	.88822	.75086	.88218
#1	.19134	5.4365	.18772	.99473	.57839	.02370	8.8084
#2	.19089	5.4938	.18600	1.0016	.58868	.02384	8.9580
#3	.19455	5.4589	.18989	1.0224	.58248	.02406	8.9242
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03519	.11358	.28101	.24888	2.4987	25.473	.50244
Stddev	.00032	.00128	.00203	.00227	.0304	.212	.00697
%RSD	.90950	1.1307	.72294	.91268	1.2160	.83297	1.3866
#1	.03501	.11333	.27920	.24918	2.4639	25.276	.50088
#2	.03500	.11244	.28062	.24647	2.5201	25.698	.51005
#3	.03556	.11497	.28321	.25099	2.5121	25.446	.49638
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1132	.30912	.50131	177.35	.24692	F -64.968	4.9001
Stddev	.0539	.00293	.00498	1.25	.00201	6.641	.0395
%RSD	1.0533	.94713	.99403	.70565	.81232	10.222	.80555
#1	5.0806	.30662	.50250	176.12	.24742	-69.332	4.9019
#2	5.1754	.31234	.49584	178.62	.24471	-57.325	4.8598
#3	5.0836	.30839	.50559	177.31	.24862	-68.246	4.9386
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008002SD Acquired: 2/7/2012 19:44:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388934-05

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.6336	F 65.195	F -2952.2	.55760	.17851	2.6010	.00095
Stddev	3.3061	.722	27.9	.00303	.00127	.0253	.00027
%RSD	90.989	1.1076	.94492	.54345	.70940	.97149	28.893
#1	3.3615	65.075	-2959.4	.55800	.17709	2.6024	.00100
#2	7.0673	64.540	-2921.4	.55439	.17894	2.5750	.00065
#3	.47187	65.969	-2975.7	.56041	.17951	2.6255	.00119
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49648	.48748	.23673	.48766	44.797	1.5309
Stddev	.00353	.00509	.00088	.00455	.479	.1243
%RSD	.71044	1.0436	.36981	.93264	1.0701	8.1195
#1	.49357	.48330	.23772	.48407	45.252	1.4431
#2	.50041	.49315	.23606	.48613	44.296	1.6732
#3	.49547	.48600	.23641	.49277	44.841	1.4765
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20225.	17007.
Stddev	191.	187.
%RSD	.94377	1.1004
#1	20325.	17209.
#2	20345.	16840.
#3	20005.	16971.

Approved: February 08, 2012

Sample Name: L1202008101 Acquired: 2/7/2012 19:48:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00109	.24885	-.00113	.09331	.11439	-.00004	6.4006
Stddev	.00085	.01661	.00231	.00375	.00023	.00004	.0533
%RSD	77.504	6.6728	204.53	4.0218	.19927	95.673	.83272
#1	-.00046	.25940	-.00351	.09752	.11442	-.00001	6.3949
#2	-.00077	.22971	-.00097	.09206	.11460	-.00008	6.4565
#3	-.00206	.25744	.00110	.09034	.11415	-.00002	6.3504
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04630	.00198	.00835	.02775	5.5459	.60945	.00170
Stddev	.00048	.00019	.00047	.00097	.0636	.06806	.00421
%RSD	1.0285	9.3852	5.6588	3.5038	1.1461	11.168	247.59
#1	.04674	.00217	.00864	.02822	5.5280	.63112	.00116
#2	.04637	.00195	.00860	.02839	5.6165	.53319	.00615
#3	.04579	.00180	.00780	.02663	5.4932	.66403	-.00221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.68192	.27296	.00013	153.26	.22581	F -39.918	.01274
Stddev	.01349	.00273	.00008	1.38	.00218	5.169	.00203
%RSD	1.9787	1.0003	60.303	.89782	.96341	12.950	15.956
#1	.66802	.27237	.00014	153.64	.22783	-35.932	.01194
#2	.68279	.27593	.00021	154.40	.22611	-38.063	.01122
#3	.69496	.27056	.00005	151.73	.22351	-45.759	.01505
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008101 Acquired: 2/7/2012 19:48:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.5888**	F **35.204**	F **-1532.7**	**-.00117**	**.00049**	**.30530**	**.00053**
Stddev	10.104	.429	9.0	.00130	.00129	.00246	.00018
%RSD	220.18	1.2173	.58635	110.72	264.14	.80627	34.039
#1	-6.9830	35.629	-1538.8	-.00029	.00035	.30759	.00062
#2	9.0895	35.213	-1537.0	-.00057	.00184	.30563	.00032
#3	11.660	34.772	-1522.4	-.00266	-.00072	.30270	.00065
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02356**	**-.00027**	**-.00141**	**-.00003**	**4.9571**	F **-.42888**
Stddev	.00028	.00095	.00223	.00019	.0557	.15580
%RSD	1.1959	349.61	157.79	576.14	1.1241	36.328
#1	.02349	-.00133	.00068	.00009	5.0159	-.54725
#2	.02387	.00049	-.00376	.00006	4.9503	-.25236
#3	.02332	.00003	-.00115	-.00025	4.9051	-.48702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20258.**	**16426.**
Stddev	389.	168.
%RSD	1.9211	1.0249
#1	19826.	16325.
#2	20367.	16334.
#3	20580.	16621.

Approved: February 08, 2012

Sample Name: L1202008202 Acquired: 2/7/2012 19:51:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.02789	-.00015	.07222	.33992	-.00003	69.088
Stddev	.00082	.05824	.00134	.00041	.00169	.00002	.450
%RSD	277.62	208.80	917.28	.57256	.49832	54.118	.65183
#1	.00022	.03109	-.00013	.07258	.34156	-.00002	69.575
#2	.00014	-.03188	-.00149	.07232	.33817	-.00005	68.686
#3	-.00124	.08447	.00118	.07177	.34004	-.00002	69.004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.00133	.00153	.00345	.04101	.64514	.00490
Stddev	.00012	.00021	.00039	.00080	.00478	.01924	.00059
%RSD	29.946	15.582	25.257	23.098	11.647	2.9817	12.042
#1	.00052	.00110	.00110	.00256	.04348	.66052	.00453
#2	.00032	.00139	.00167	.00368	.03550	.62357	.00460
#3	.00032	.00150	.00183	.00411	.04404	.65133	.00558
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.89788	.29735	.00135	152.53	.00742	F -76.592	.00042
Stddev	.01150	.00257	.00037	1.02	.00041	18.150	.00083
%RSD	1.2812	.86467	27.604	.66653	5.4868	23.697	196.68
#1	.91088	.29930	.00177	153.60	.00784	-97.532	.00022
#2	.88904	.29443	.00111	151.59	.00702	-66.865	-.00029
#3	.89371	.29831	.00115	152.39	.00742	-65.380	.00133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202008202 Acquired: 2/7/2012 19:51:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.086	F 78.531	F -494.37	.00032	-.00293	.41930	.00038
Stddev	8.627	.096	1.27	.00238	.00105	.00528	.00015
%RSD	57.181	.12176	.25732	733.72	35.787	1.2594	37.958
#1	5.2076	78.501	-495.19	-.00183	-.00353	.42534	.00025
#2	18.920	78.454	-495.01	-.00008	-.00172	.41558	.00054
#3	21.132	78.638	-492.90	.00288	-.00353	.41696	.00036
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16858	.00037	-.00160	.00021	.08225	.02274
Stddev	.00108	.00156	.00137	.00023	.00018	.17015
%RSD	.64328	425.19	85.511	109.81	.22291	748.33
#1	.16956	-.00112	-.00316	-.00003	.08246	-.17081
#2	.16741	.00023	-.00099	.00024	.08216	.09022
#3	.16877	.00199	-.00064	.00042	.08212	.14879
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20121.	17733.
Stddev	32.	206.
%RSD	.16087	1.1594
#1	20120.	17496.
#2	20089.	17837.
#3	20153.	17865.

Approved: February 08, 2012

Sample Name: L1202013506 Acquired: 2/7/2012 19:54:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.16521	-.00123	.07026	.08653	-.00003	83.427
Stddev	.00049	.02771	.00205	.00100	.00109	.00001	.937
%RSD	96.500	16.772	166.85	1.4179	1.2607	27.933	1.1226
#1	-.00069	.19719	.00072	.06920	.08531	-.00003	82.403
#2	-.00087	.15015	-.00105	.07117	.08689	-.00004	83.637
#3	.00005	.14829	-.00336	.07042	.08740	-.00003	84.240
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.00031	.00167	.00123	.35673	.57247	.00290
Stddev	.00011	.00011	.00018	.00023	.00409	.05105	.00148
%RSD	35.541	36.231	10.998	19.011	1.1470	8.9176	51.180
#1	.00022	.00035	.00146	.00111	.35216	.51906	.00405
#2	.00029	.00018	.00180	.00108	.36006	.62077	.00122
#3	.00044	.00040	.00174	.00150	.35796	.57760	.00342
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5312	.36595	-.00013	147.05	.00041	F -86.779	.00033
Stddev	.0238	.00406	.00027	1.69	.00091	26.541	.00151
%RSD	1.5508	1.1090	205.58	1.1489	223.67	30.585	453.20
#1	1.5039	.36143	-.00019	145.26	-.00047	-97.503	.00202
#2	1.5469	.36714	-.00036	147.29	.00135	-56.554	-.00089
#3	1.5427	.36927	.00016	148.61	.00034	-106.28	-.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202013506 Acquired: 2/7/2012 19:54:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.823	F 297.42	F -11151.	.00078	-.00379	.31500	.00054
Stddev	2.265	1.48	36.	.00190	.00051	.00240	.00026
%RSD	13.465	.49838	.32170	243.31	13.429	.76124	49.118
#1	16.622	295.71	-11110.	.00280	-.00428	.31270	.00041
#2	19.182	298.22	-11168.	-.00097	-.00383	.31748	.00084
#3	14.665	298.33	-11175.	.00051	-.00326	.31483	.00036
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11857	.00344	-.00175	.00018	.02172	F -.14191
Stddev	.00129	.00158	.00119	.00023	.00015	.18917
%RSD	1.0870	45.920	68.170	125.50	.70501	133.30
#1	.11724	.00231	-.00041	.00019	.02155	.06257
#2	.11867	.00524	-.00269	.00041	.02184	-.17761
#3	.11981	.00276	-.00216	-.00005	.02178	-.31069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	19689.	17144.
Stddev	163.	98.
%RSD	.82588	.57032
#1	19858.	17256.
#2	19673.	17092.
#3	19534.	17082.

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 19:58:20 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39237	10.147	.39522	.48928	.99413	.04872	10.042
Stddev	.00144	.028	.00204	.00219	.00156	.00007	.031
%RSD	.36723	.27584	.51696	.44748	.15659	.15190	.31000
#1	.39172	10.159	.39450	.49024	.99234	.04880	10.006
#2	.39137	10.167	.39753	.48678	.99510	.04865	10.056
#3	.39402	10.115	.39364	.49083	.99496	.04873	10.063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04956	.19973	.49445	.50274	3.9688	50.922	1.0006
Stddev	.00012	.00039	.00245	.00153	.0139	.012	.0029
%RSD	.24102	.19300	.49513	.30342	.35018	.02423	.29081
#1	.04943	.19960	.49517	.50179	3.9528	50.919	.99728
#2	.04965	.20017	.49172	.50450	3.9775	50.936	1.0025
#3	.04961	.19943	.49645	.50193	3.9762	50.912	1.0021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.077	.49662	1.0070	50.994	.50581	F -16.835	.50632
Stddev	.049	.00133	.0008	.056	.00058	24.282	.00151
%RSD	.48466	.26726	.07870	.10989	.11526	144.24	.29763
#1	10.123	.49815	1.0061	50.944	.50532	-19.161	.50561
#2	10.082	.49575	1.0076	51.054	.50646	-39.869	.50805
#3	10.026	.49597	1.0072	50.983	.50565	8.5266	.50529
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 19:58:20 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 5.7270	10.145	F 16.888	1.1936	.39495	4.9515	1.0064
Stddev	3.3426	.044	1.799	.0025	.00326	.0034	.0035
%RSD	58.366	.43607	10.649	.21277	.82661	.06959	.34833
#1	3.2502	10.193	16.576	1.1938	.39696	4.9494	1.0051
#2	9.5290	10.135	18.822	1.1960	.39671	4.9555	1.0104
#3	4.4017	10.106	15.266	1.1910	.39118	4.9497	1.0037
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	-10.000%		10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0000	.98598	.50812	.97518	1.0140	F .78179
Stddev	.0023	.00263	.00176	.00159	.0011	.17506
%RSD	.22685	.26718	.34643	.16352	.10436	22.392
#1	.99744	.98490	.50886	.97656	1.0140	.81047
#2	1.0015	.98406	.50611	.97343	1.0151	.59416
#3	1.0012	.98898	.50938	.97555	1.0130	.94074
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	21145.	17144.
Stddev	52.	473.
%RSD	.24402	2.7574
#1	21133.	16598.
#2	21100.	17404.
#3	21201.	17429.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 20:01:33 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00072**	**.00498**	**-.00097**	**.00374**	**.00014**	**-.00003**	**-.03147**
Stddev	.00033	.03235	.00119	.00090	.00037	.00001	.00578
%RSD	46.527	649.78	122.96	24.049	274.72	32.133	18.356
#1	-.00077	.04233	-.00032	.00424	.00042	-.00005	-.02794
#2	-.00102	-.01344	-.00234	.00270	-.00029	-.00003	-.03813
#3	-.00036	-.01396	-.00024	.00427	.00027	-.00003	-.02833
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00016**	**-.00009**	**.00042**	**.00080**	**-.00205**	**.12244**	**.00289**
Stddev	.00010	.00006	.00012	.00009	.00382	.05067	.00101
%RSD	64.595	64.779	28.770	11.859	186.00	41.382	34.892
#1	-.00007	-.00005	.00039	.00087	-.00210	.15647	.00177
#2	-.00027	-.00016	.00031	.00069	.00179	.14663	.00318
#3	-.00013	-.00007	.00055	.00084	-.00585	.06421	.00371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00340**	**-.00015**	**.00070**	**.13726**	**-.00054**	F **5.5199**	**-.00066**
Stddev	.02074	.00013	.00035	.02782	.00054	35.418	.00180
%RSD	610.69	86.278	49.849	20.266	100.46	641.64	271.81
#1	.00551	-.00028	.00034	.12452	-.00056	3.5863	.00023
#2	.02299	-.00001	.00104	.16916	.00001	41.865	.00051
#3	-.01832	-.00017	.00072	.11810	-.00107	-28.892	-.00273
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 20:01:33 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **7.7107**	F **-.34995**	F **11.612**	**.00031**	**-.00082**	**.00652**	**.00054**
Stddev	2.2411	.04048	1.905	.00084	.00301	.00078	.00010
%RSD	29.065	11.566	16.409	275.49	367.65	11.963	18.031
#1	9.8971	-.31117	9.5048	.00037	.00183	.00562	.00056
#2	5.4186	-.39193	12.116	.00112	-.00020	.00700	.00044
#3	7.8164	-.34674	13.214	-.00057	-.00409	.00695	.00063
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.00000**	**-.00133**	**.00005**	**-.00060**	F **-.21141**
Stddev	.00004	.00179	.00256	.00032	.00002	.14760
%RSD	30.379	87476.	192.82	590.35	3.4375	69.819
#1	.00020	-.00167	.00037	.00041	-.00059	-.07967
#2	.00012	.00189	-.00427	-.00021	-.00059	-.37092
#3	.00012	-.00022	-.00008	-.00004	-.00062	-.18363
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20929.**	**17539.**
Stddev	107.	31.
%RSD	.51238	.17777
#1	21050.	17523.
#2	20844.	17519.
#3	20893.	17575.

Approved: February 08, 2012

Sample Name: PBW 2T Acquired: 2/7/2012 20:05:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	-.00301	-.00015	.00175	.00114	-.00004	-.03085
Stddev	.00033	.03960	.00157	.00077	.00013	.00004	.00385
%RSD	48.970	1314.6	1024.3	44.170	11.672	123.71	12.470
#1	-.00031	.01970	-.00025	.00125	.00122	.00001	-.03510
#2	-.00078	-.04873	-.00167	.00136	.00120	-.00008	-.02760
#3	-.00094	.01999	.00146	.00263	.00098	-.00004	-.02986
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00001	.00074	.00074	.00510	.03259	.00756
Stddev	.00012	.00019	.00028	.00059	.00387	.04643	.00268
%RSD	265.12	2221.9	37.407	79.245	75.851	142.50	35.443
#1	.00004	-.00008	.00084	.00065	.00461	.07262	.00472
#2	.00001	.00022	.00042	.00020	.00150	-.01832	.01005
#3	-.00018	-.00012	.00095	.00136	.00919	.04346	.00791
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01128	-.00072	.00001	.02117	-.00019	F -24.964	-.00045
Stddev	.01075	.00027	.00016	.01156	.00016	21.181	.00036
%RSD	95.336	37.111	1255.2	54.604	83.136	84.847	79.487
#1	-.00025	-.00103	-.00011	.03432	-.00009	-19.964	-.00059
#2	.02104	-.00060	.00019	.01657	-.00038	-6.7298	-.00005
#3	.01304	-.00054	-.00004	.01262	-.00011	-48.198	-.00073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: PBW 2T Acquired: 2/7/2012 20:05:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.9591	F -.29541	F 15.072	-.00024	-.00563	.00845	-.00031
Stddev	1.3949	.02981	3.229	.00097	.00130	.00106	.00022
%RSD	23.408	10.090	21.425	402.85	23.161	12.545	70.861
#1	4.3542	-.26866	18.743	.00001	-.00641	.00968	-.00041
#2	6.6434	-.29002	12.669	-.00131	-.00413	.00786	-.00046
#3	6.8797	-.32754	13.804	.00058	-.00637	.00782	-.00006
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000	9.0000				
Low Limit		-.00400	-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00104	.00036	-.00008	.00114	F -.14986
Stddev	.00008	.00040	.00116	.00007	.00009	.08595
%RSD	49.808	38.695	320.51	95.076	7.9505	57.355
#1	.00024	-.00118	.00167	-.00009	.00103	-.15739
#2	.00013	-.00058	-.00056	.00000	.00119	-.06039
#3	.00010	-.00134	-.00002	-.00015	.00119	-.23180
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						45.000
Low Limit						-.00400

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20974.	16963.
Stddev	259.	311.
%RSD	1.2325	1.8320
#1	21232.	17259.
#2	20974.	16989.
#3	20715.	16639.

Approved: February 08, 2012

Sample Name: LCSW 2T Acquired: 2/7/2012 20:08:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19857	5.0075	.19400	.97703	.49546	.02435	4.9182
Stddev	.00282	.0625	.00179	.01330	.00126	.00028	.0282
%RSD	1.4223	1.2486	.92321	1.3613	.25377	1.1384	.57341
#1	.19658	4.9853	.19413	.96955	.49446	.02416	4.8889
#2	.20180	4.9591	.19215	.99239	.49505	.02467	4.9206
#3	.19732	5.0781	.19572	.96915	.49687	.02423	4.9451
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02464	.09990	.24996	.25085	1.9322	25.215	.50861
Stddev	.00012	.00024	.00336	.00009	.0055	.155	.00452
%RSD	.49551	.23888	1.3458	.03632	.28584	.61408	.88910
#1	.02476	.10017	.24733	.25095	1.9384	25.185	.50507
#2	.02451	.09977	.25375	.25083	1.9300	25.077	.50707
#3	.02464	.09975	.24880	.25077	1.9280	25.382	.51371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0169	.24429	.50493	25.824	.25307	F -9.5014	.25389
Stddev	.0468	.00026	.00182	.182	.00043	38.838	.00156
%RSD	.93225	.10636	.36057	.70560	.16802	408.76	.61444
#1	4.9867	.24399	.50671	25.637	.25356	-39.018	.25342
#2	4.9933	.24447	.50308	25.835	.25279	34.497	.25263
#3	5.0708	.24440	.50501	26.001	.25285	-23.983	.25564
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	

Approved: February 08, 2012

Erin D. Long

Sample Name: LCSW 2T Acquired: 2/7/2012 20:08:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6706	5.0212	F 15.645	.59007	.19432	2.5440	.00059
Stddev	3.2767	.0273	2.887	.00213	.00055	.0035	.00030
%RSD	196.14	.54328	18.450	.36046	.28546	.13840	51.201
#1	2.5363	4.9899	15.746	.59004	.19394	2.5436	.00086
#2	-1.9521	5.0334	12.709	.59221	.19496	2.5407	.00026
#3	4.4275	5.0402	18.479	.58795	.19407	2.5477	.00066
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			9.0000				
Low Limit			-.00400				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48975	.48244	.25896	.48438	.51136	.30588
Stddev	.00353	.00257	.00229	.00532	.00099	.13174
%RSD	.72004	.53349	.88322	1.0975	.19270	43.069
#1	.48581	.48200	.25729	.48227	.51114	.15514
#2	.49082	.48011	.25803	.49043	.51243	.36353
#3	.49261	.48520	.26157	.48045	.51050	.39897
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20616.	16810.
Stddev	99.	93.
%RSD	.48155	.55531
#1	20705.	16846.
#2	20509.	16880.
#3	20635.	16704.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010301 Acquired: 2/7/2012 20:11:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00070	.05725	.00062	.01752	.00989	.00002
Stddev	.00023	.03459	.00157	.00033	.00079	.00003
%RSD	33.060	60.408	252.11	1.9032	7.9860	125.10
#1	-.00070	.06023	.00239	.01790	.00904	.00000
#2	-.00047	.09026	.00005	.01725	.01002	.00005
#3	-.00093	.02128	-.00058	.01742	.01060	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	366.55	.00229	.00358	.00235	.00148	.05132
Stddev	.97	.00010	.00023	.00025	.00032	.00891
%RSD	.26425	4.3973	6.5712	10.845	21.927	17.365
#1	366.05	.00240	.00385	.00255	.00181	.04558
#2	365.93	.00221	.00344	.00206	.00116	.06159
#3	367.66	.00226	.00344	.00244	.00147	.04679
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.9577	.11833	683.96	1.2934	.00024	37.884
Stddev	.0430	.00259	3.97	.0079	.00016	.104
%RSD	.61739	2.1898	.58097	.60861	68.682	.27401
#1	6.9578	.11575	681.22	1.2900	.00028	37.882
#2	6.9146	.12093	682.15	1.2878	.00006	37.781
#3	7.0006	.11829	688.52	1.3024	.00038	37.989
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012
Erin D. Long

Sample Name: L1202010301 Acquired: 2/7/2012 20:11:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07329	F -124.70	.00053	F 13.447	F 27424.	F -1601e3
Stddev	.00036	24.68	.00156	2.211	214.	13505.
%RSD	.48544	19.790	294.97	16.441	.78165	.84358
#1	.07341	-98.345	.00011	12.295	27234.	-1595e3
#2	.07289	-147.26	-.00078	15.995	27381.	-1592e3
#3	.07357	-128.50	.00226	12.049	27657.	-1616e3
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	-.00223	3.4521	-.00038	.32672	-.01268
Stddev	.00149	.00274	.0030	.00008	.00122	.00105
%RSD	464.13	122.96	.08676	20.645	.37430	8.3050
#1	.00147	.00002	3.4515	-.00035	.32642	-.01333
#2	.00085	-.00529	3.4494	-.00032	.32567	-.01147
#3	-.00136	-.00142	3.4553	-.00047	.32806	-.01324
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	.00016	-.00053	.09888	F -.42162
Stddev	.00159	.00031	.00014	.07324
%RSD	1005.7	57.918	.14122	17.371
#1	-.00163	-.00087	.09897	-.39552
#2	.00068	-.00044	.09872	-.36501
#3	.00142	-.00028	.09895	-.50433
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Sample Name: L1202010301 Acquired: 2/7/2012 20:11:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19068.**	**16715.**
Stddev	48.	52.
%RSD	.25228	.30958
#1	19048.	16726.
#2	19123.	16760.
#3	19034.	16658.

Approved: February 08, 2012

Sample Name: L1202010302 Acquired: 2/7/2012 20:15:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00065	.05305	.00019	.01354	.01775	.00002
Stddev	.00052	.02193	.00084	.00146	.00009	.00002
%RSD	79.763	41.342	441.22	10.755	.53041	103.31
#1	-.00022	.05152	.00115	.01377	.01783	.00004
#2	-.00122	.03192	-.00032	.01487	.01778	.00002
#3	-.00051	.07571	-.00026	.01198	.01765	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	360.99	.00234	.00404	.00234	.00231	.04846
Stddev	1.22	.00010	.00002	.00050	.00022	.00261
%RSD	.33856	4.3993	.37206	21.407	9.4595	5.3832
#1	359.63	.00242	.00404	.00182	.00250	.05093
#2	361.32	.00222	.00405	.00281	.00235	.04573
#3	362.01	.00238	.00402	.00239	.00207	.04871
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.8029	.11898	674.60	1.2964	-.00031	37.810
Stddev	.0348	.00198	3.84	.0121	.00010	.107
%RSD	.51153	1.6671	.56982	.93615	33.267	.28244
#1	6.7655	.11674	670.38	1.2847	-.00024	37.756
#2	6.8090	.11970	675.54	1.2956	-.00027	37.740
#3	6.8343	.12051	677.89	1.3089	-.00043	37.933
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010302 Acquired: 2/7/2012 20:15:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-01

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07265	F -105.70	.00020	7.0035	F 27829.	F -1588e3
Stddev	.00051	64.52	.00086	9.2915	261.	6270.
%RSD	.69834	61.038	435.45	132.67	.93962	.39497
#1	.07323	-156.91	.00112	6.7300	28051.	-1592e3
#2	.07229	-126.95	-.00057	-2.1483	27541.	-1590e3
#3	.07242	-33.237	.00004	16.429	27896.	-1580e3
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit		900.00			9.0000	9.0000
Low Limit		-.00400			-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.00012	3.4462	.00016	.32420	-.01226
Stddev	.00238	.00109	.0347	.00033	.00168	.00064
%RSD	606.61	882.36	1.0070	202.77	.51929	5.2541
#1	-.00135	.00087	3.4752	.00039	.32284	-.01250
#2	-.00058	.00064	3.4556	-.00021	.32369	-.01153
#3	.00311	-.00113	3.4077	.00030	.32608	-.01274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	.00033	-.00099	.09036	F -.45918
Stddev	.00099	.00016	.00121	.21683
%RSD	301.01	16.089	1.3443	47.221
#1	-.00079	-.00100	.09170	-.24557
#2	.00110	-.00115	.09007	-.67909
#3	.00067	-.00083	.08932	-.45289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010302 Acquired: 2/7/2012 20:15:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-01

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19537.**	**16743.**
Stddev	199.	220.
%RSD	1.0164	1.3133
#1	19321.	16567.
#2	19578.	16673.
#3	19712.	16990.

Approved: February 08, 2012

Sample Name: L1202010302DUP Acquired: 2/7/2012 20:18:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	.02585	.00009	.01369	.01710	.00003
Stddev	.00041	.03626	.00127	.00111	.00009	.00001
%RSD	168.68	140.24	1440.8	8.1281	.55056	58.572
#1	-.00036	.03375	.00134	.01324	.01712	.00003
#2	-.00059	-.01370	-.00119	.01288	.01700	.00001
#3	.00021	.05751	.00011	.01496	.01719	.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	356.93	.00205	.00370	.00231	.00180	.04968
Stddev	1.15	.00007	.00014	.00004	.00054	.00029
%RSD	.32223	3.1837	3.6912	1.6882	29.841	.58500
#1	355.74	.00211	.00374	.00229	.00221	.04942
#2	357.03	.00198	.00355	.00229	.00200	.04962
#3	358.03	.00204	.00382	.00236	.00119	.04999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.6751	.12002	667.86	1.2870	-.00036	37.579
Stddev	.0133	.00089	2.35	.0084	.00024	.145
%RSD	.19890	.74244	.35249	.64998	66.737	.38667
#1	6.6896	.11906	665.55	1.2805	-.00032	37.412
#2	6.6635	.12083	667.77	1.2841	-.00062	37.642
#3	6.6721	.12018	670.26	1.2965	-.00015	37.681
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010302DUP Acquired: 2/7/2012 20:18:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-04

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07126	F -59.418	.00144	F 14.957	F 27079.	F -1581e3
Stddev	.00033	13.954	.00320	4.492	627.	16878.
%RSD	.46604	23.485	222.63	30.031	2.3148	1.0673
#1	.07158	-46.111	.00023	13.712	27089.	-1595e3
#2	.07127	-73.940	-.00098	11.219	26447.	-1563e3
#3	.07092	-58.203	.00507	19.940	27701.	-1587e3
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00113	-.00343	3.4122	-.00014	.32418	-.01199
Stddev	.00242	.00087	.0017	.00021	.00098	.00130
%RSD	215.06	25.262	.04916	154.41	.30320	10.853
#1	.00049	-.00248	3.4123	-.00031	.32313	-.01346
#2	-.00092	-.00417	3.4138	.00010	.32436	-.01150
#3	.00380	-.00364	3.4104	-.00019	.32507	-.01101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	.00073	-.00088	.08848	F -.18776
Stddev	.00188	.00013	.00063	.12241
%RSD	259.03	14.342	.71743	65.195
#1	-.00049	-.00077	.08921	-.15406
#2	-.00022	-.00101	.08815	-.08573
#3	.00290	-.00086	.08808	-.32349
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Sample Name: L1202010302DUP Acquired: 2/7/2012 20:18:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-04

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20179.**	**17540.**
Stddev	273.	56.
%RSD	1.3530	.31746
#1	19863.	17477.
#2	20335.	17581.
#3	20337.	17563.

Approved: February 08, 2012

Sample Name: L1202010302S Acquired: 2/7/2012 20:22:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20514	5.0266	.19799	1.0014	.50587	.02461
Stddev	.00219	.0235	.00229	.0052	.00315	.00015
%RSD	1.0670	.46711	1.1562	.51428	.62202	.59722
#1	.20759	5.0523	.20014	1.0073	.50223	.02477
#2	.20336	5.0211	.19824	.99814	.50764	.02448
#3	.20448	5.0064	.19558	.99865	.50772	.02459
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	360.88	.02713	.09839	.24606	.23927	1.9101
Stddev	.96	.00010	.00042	.00134	.00071	.0099
%RSD	.26681	.38688	.43112	.54638	.29563	.51969
#1	359.80	.02724	.09888	.24674	.23971	1.8986
#2	361.65	.02704	.09816	.24452	.23965	1.9162
#3	361.20	.02710	.09813	.24694	.23846	1.9154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.943	.63311	663.93	1.5123	.49531	63.318
Stddev	.087	.00534	2.84	.0078	.00308	.063
%RSD	.27096	.84324	.42810	.51773	.62159	.09892
#1	31.846	.62740	660.72	1.5034	.49860	63.327
#2	32.013	.63398	666.12	1.5180	.49485	63.376
#3	31.969	.63797	664.94	1.5155	.49250	63.252
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010302S Acquired: 2/7/2012 20:22:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-05

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30808	F -82.112	.23398	8.2122	F 26890.	F -1555e3
Stddev	.00147	22.329	.00278	6.9371	218.	10371.
%RSD	.47786	27.194	1.1876	84.473	.81169	.66708
#1	.30946	-57.798	.23692	15.156	26675.	-1559e3
#2	.30825	-101.70	.23363	1.2819	27111.	-1562e3
#3	.30653	-86.835	.23140	8.1987	26883.	-1543e3
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit		900.00			9.0000	9.0000
Low Limit		-.00400			-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.58622	.19935	5.8569	.00065	.81288	.46637
Stddev	.00356	.00229	.0353	.00037	.00153	.00198
%RSD	.60740	1.1497	.60340	57.572	.18772	.42403
#1	.59030	.19672	5.8977	.00106	.81130	.46554
#2	.58374	.20094	5.8362	.00054	.81434	.46862
#3	.58462	.20038	5.8369	.00034	.81301	.46493
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	.22991	.49318	.56871	.03310
Stddev	.00205	.00264	.00195	.24624
%RSD	.89184	.53555	.34367	743.84
#1	.22868	.49619	.57058	-.18520
#2	.22878	.49126	.56668	-.01551
#3	.23228	.49209	.56888	.30003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010302S Acquired: 2/7/2012 20:22:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388911-05

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	19409.	17551.
Stddev	40.	86.
%RSD	.20625	.49255
#1	19363.	17632.
#2	19432.	17562.
#3	19433.	17460.

Approved: February 08, 2012

Sample Name: L1202010303 Acquired: 2/7/2012 20:26:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	.03387	-.00049	.01335	.00929	.00001
Stddev	.00026	.02098	.00101	.00106	.00027	.00001
%RSD	110.41	61.937	207.65	7.9561	2.9230	102.88
#1	-.00049	.04616	-.00165	.01290	.00960	.00000
#2	.00003	.04581	.00009	.01457	.00920	.00001
#3	-.00024	.00965	.00010	.01259	.00908	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	322.21	.00158	.00234	.00141	.00063	.05623
Stddev	.42	.00005	.00014	.00069	.00101	.00503
%RSD	.12896	3.1249	6.0224	49.185	160.60	8.9525
#1	322.61	.00158	.00249	.00211	.00180	.05885
#2	321.78	.00163	.00231	.00072	.00003	.05942
#3	322.25	.00153	.00222	.00139	.00006	.05043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.816	.04201	360.92	.23574	.00046	109.36
Stddev	.035	.00269	1.50	.00168	.00012	.06
%RSD	.31924	6.3954	.41495	.71172	26.896	.05641
#1	10.827	.03987	361.19	.23658	.00032	109.37
#2	10.777	.04503	359.30	.23380	.00050	109.30
#3	10.843	.04114	362.26	.23682	.00056	109.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010303 Acquired: 2/7/2012 20:26:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02386	F -91.171	.00095	F 9.3383	F 17066.	F -943570.
Stddev	.00012	30.899	.00072	4.1549	35.	591.
%RSD	.51170	33.891	75.577	44.493	.20679	.06261
#1	.02399	-98.547	.00037	5.7413	17028.	-943220.
#2	.02383	-57.251	.00072	13.886	17075.	-944250.
#3	.02375	-117.71	.00175	8.3874	17096.	-943240.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00082	-.00405	2.5707	-.00016	.42720	-.01045
Stddev	.00097	.00179	.0069	.00032	.00077	.00239
%RSD	117.41	44.219	.26973	200.57	.18100	22.851
#1	-.00028	-.00564	2.5635	-.00009	.42717	-.01266
#2	.00151	-.00211	2.5774	-.00050	.42645	-.00791
#3	.00124	-.00442	2.5712	.00012	.42799	-.01078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	.00015	-.00029	.02776	F -.25679
Stddev	.00075	.00011	.00010	.10237
%RSD	516.08	38.782	.35685	39.865
#1	-.00067	-.00030	.02770	-.19184
#2	.00029	-.00040	.02788	-.20374
#3	.00081	-.00018	.02772	-.37479
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010303 Acquired: 2/7/2012 20:26:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20124.**	**16978.**
Stddev	69.	150.
%RSD	.34076	.88289
#1	20187.	16811.
#2	20051.	17020.
#3	20134.	17102.

Approved: February 08, 2012

Sample Name: L1202010304 Acquired: 2/7/2012 20:29:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	.00408	-.00025	.01168	.01214	.00000
Stddev	.00019	.01957	.00106	.00048	.00041	.0000
%RSD	34.674	479.82	418.40	4.0776	3.4083	1235.1
#1	-.00061	.02556	.00030	.01215	.01238	.00000
#2	-.00071	-.00059	-.00148	.01119	.01166	.00002
#3	-.00034	-.01273	.00041	.01171	.01237	-.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	318.09	.00165	.00253	.00254	.00132	.04725
Stddev	.31	.00008	.00002	.00026	.00009	.00547
%RSD	.09889	4.7348	.85984	10.350	7.0591	11.574
#1	318.30	.00160	.00254	.00225	.00140	.04727
#2	317.73	.00174	.00254	.00263	.00134	.04177
#3	318.24	.00161	.00250	.00275	.00122	.05271
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.634	.03678	356.99	.23132	.00000	111.74
Stddev	.070	.00049	.91	.00036	.0003	.06
%RSD	.65912	1.3457	.25576	.15540	53987.	.05007
#1	10.648	.03718	357.82	.23123	-.00014	111.77
#2	10.558	.03692	356.01	.23101	.00036	111.68
#3	10.696	.03622	357.15	.23172	-.00022	111.77
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010304 Acquired: 2/7/2012 20:29:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02237	F -180.43	.00068	F 11.136	F 16763.	F -938320.
Stddev	.00074	19.91	.00184	5.909	112.	1495.
%RSD	3.3114	11.034	272.68	53.065	.66757	.15932
#1	.02261	-203.01	-.00145	16.232	16753.	-938680.
#2	.02297	-165.41	.00186	12.516	16880.	-939610.
#3	.02154	-172.88	.00161	4.6584	16657.	-936680.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00072	-.00457	2.6101	-.00006	.42154	-.01086
Stddev	.00078	.00153	.0016	.00012	.00029	.00076
%RSD	108.33	33.508	.06233	184.91	.06850	6.9772
#1	-.00002	-.00321	2.6116	-.00020	.42171	-.01001
#2	-.00057	-.00622	2.6084	-.00002	.42121	-.01146
#3	-.00155	-.00427	2.6103	.00002	.42171	-.01110
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	-.00016	-.00032	.04538	F -.40734
Stddev	.00056	.00004	.00015	.09533
%RSD	349.28	13.315	.33315	23.404
#1	-.00061	-.00037	.04537	-.33778
#2	.00046	-.00028	.04523	-.36823
#3	-.00033	-.00031	.04553	-.51601
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Sample Name: L1202010304 Acquired: 2/7/2012 20:29:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19747.**	**17230.**
Stddev	171.	165.
%RSD	.86501	.95589
#1	19882.	17121.
#2	19804.	17419.
#3	19555.	17150.

Approved: February 08, 2012

Sample Name: L1202010304PS Acquired: 2/7/2012 20:33:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388971-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19531	4.9242	.19420	.96849	.48932	.02362
Stddev	.00277	.0077	.00214	.01087	.00158	.00023
%RSD	1.4179	.15634	1.1040	1.1227	.32226	.96507
#1	.19214	4.9276	.19368	.95749	.48764	.02339
#2	.19724	4.9296	.19236	.96875	.49077	.02361
#3	.19654	4.9154	.19655	.97924	.48956	.02385
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	291.16	.02574	.09508	.24037	.23363	1.8788
Stddev	.63	.00014	.00039	.00302	.00037	.0050
%RSD	.21580	.55871	.41236	1.2579	.15755	.26428
#1	290.43	.02564	.09472	.23700	.23321	1.8795
#2	291.52	.02590	.09549	.24125	.23376	1.8833
#3	291.52	.02568	.09502	.24285	.23391	1.8735
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.374	.52370	325.75	.43688	.49011	125.42
Stddev	.078	.00331	.93	.00222	.00125	.19
%RSD	.22806	.63193	.28552	.50843	.25440	.15370
#1	34.284	.51993	324.80	.43439	.48880	125.20
#2	34.422	.52506	326.66	.43867	.49128	125.46
#3	34.417	.52612	325.79	.43757	.49024	125.58
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010304PS Acquired: 2/7/2012 20:33:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388971-01

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25653	F -169.97	.23231	F 9.6026	F 15280.	F -846540.
Stddev	.00081	30.40	.00176	12.906	40.	466.
%RSD	.31498	17.885	.75808	134.41	.26400	.05507
#1	.25629	-144.85	.23071	20.633	15234.	-846500.
#2	.25744	-203.77	.23420	-4.5916	15300.	-847030.
#3	.25587	-161.30	.23202	12.767	15307.	-846100.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.57340	.18930	4.9034	.00120	.85816	.45911
Stddev	.00191	.00232	.0006	.00012	.00250	.00360
%RSD	.33339	1.2238	.01246	9.8470	.29176	.78408
#1	.57135	.19047	4.9031	.00132	.85532	.45605
#2	.57514	.18663	4.9041	.00109	.86003	.46308
#3	.57370	.19079	4.9030	.00117	.85914	.45821
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	.22727	.47657	.52093	F -.06688
Stddev	.00088	.00468	.00070	.05814
%RSD	.38840	.98121	.13524	86.927
#1	.22656	.47147	.52021	-.03290
#2	.22700	.47756	.52098	-.13402
#3	.22826	.48066	.52161	-.03374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010304PS Acquired: 2/7/2012 20:33:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: WG388971-01

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	19549.	16708.
Stddev	93.	73.
%RSD	.47824	.43748
#1	19627.	16635.
#2	19574.	16781.
#3	19445.	16709.

Approved: February 08, 2012

Sample Name: L1202010304SDL Acquired: 2/7/2012 20:36:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388971-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00072	.00584	-.00004	.00653	.00256	-.00004
Stddev	.00048	.01518	.00152	.00121	.00020	.00003
%RSD	66.508	260.16	3730.3	18.546	7.6693	73.424
#1	-.00108	.01930	.00059	.00518	.00277	-.00001
#2	-.00018	.00882	-.00177	.00688	.00239	-.00007
#3	-.00090	-.01062	.00106	.00752	.00251	-.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	63.598	.00074	.00040	.00105	.00128	.01198
Stddev	.078	.00014	.00014	.00044	.00056	.00359
%RSD	.12191	19.152	35.494	42.207	43.852	29.941
#1	63.586	.00068	.00029	.00054	.00155	.01339
#2	63.527	.00091	.00056	.00132	.00166	.01465
#3	63.681	.00065	.00035	.00129	.00064	.00790
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1769	.01044	72.472	.04749	.00026	22.570
Stddev	.0883	.00285	.114	.00085	.00020	.053
%RSD	4.0582	27.338	.15768	1.7974	78.204	.23520
#1	2.1067	.00871	72.535	.04773	.00043	22.590
#2	2.2761	.01373	72.341	.04654	.00029	22.510
#3	2.1479	.00887	72.542	.04820	.00004	22.611
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010304SDL Acquired: 2/7/2012 20:36:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388971-02

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00425	F -77.078	-.00026	3.5212	F 3646.7	F -188040.
Stddev	.00032	11.040	.00080	8.0401	18.1	160.
%RSD	7.5149	14.323	302.28	228.33	.49647	.08500
#1	.00400	-73.626	.00066	10.607	3646.4	-188100.
#2	.00413	-68.176	-.00066	-5.2163	3628.7	-187860.
#3	.00461	-89.432	-.00078	5.1724	3664.9	-188160.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit		900.00			9.0000	9.0000
Low Limit		-.00400			-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00121	-.00304	.52261	.00124	.08528	-.00237
Stddev	.00200	.00174	.00075	.00054	.00041	.00112
%RSD	165.98	57.154	.14258	43.573	.47702	47.249
#1	.00191	-.00346	.52251	.00101	.08555	-.00180
#2	.00276	-.00454	.52192	.00185	.08481	-.00365
#3	-.00105	-.00113	.52340	.00085	.08548	-.00164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	-.00191	-.00028	.00905	F -.28912
Stddev	.00183	.00010	.00002	.24199
%RSD	95.569	35.094	.16868	83.701
#1	-.00178	-.00030	.00904	-.03055
#2	-.00380	-.00037	.00905	-.51015
#3	-.00015	-.00018	.00907	-.32664
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010304SDL Acquired: 2/7/2012 20:36:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG388971-02

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20330.	16812.
Stddev	58.	45.
%RSD	.28637	.26636
#1	20323.	16791.
#2	20391.	16782.
#3	20275.	16863.

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 20:39:43 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39836	10.254	.40072	.49881	1.0065	.04967	10.187
Stddev	.00207	.015	.00440	.00297	.0012	.00023	.016
%RSD	.51892	.14842	1.0983	.59555	.11462	.45635	.15541
#1	.39625	10.248	.40427	.49631	1.0073	.04941	10.170
#2	.39847	10.243	.39580	.49804	1.0069	.04980	10.201
#3	.40038	10.272	.40210	.50210	1.0051	.04980	10.189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05037	.20257	.50110	.51054	3.9747	51.653	1.0195
Stddev	.00039	.00107	.00204	.00317	.0183	.095	.0044
%RSD	.77619	.52869	.40746	.62065	.45969	.18451	.43280
#1	.04997	.20180	.49891	.50743	3.9880	51.732	1.0152
#2	.05040	.20211	.50296	.51042	3.9823	51.547	1.0193
#3	.05075	.20379	.50142	.51377	3.9539	51.679	1.0240
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.088	.49719	1.0111	51.924	.51113	F -4.5627	.51302
Stddev	.030	.00089	.0037	.220	.00186	39.246	.00258
%RSD	.29549	.17887	.37129	.42316	.36480	860.16	.50207
#1	10.109	.49820	1.0069	51.797	.50921	-45.508	.51262
#2	10.102	.49681	1.0123	51.797	.51125	32.729	.51067
#3	10.054	.49655	1.0141	52.178	.51293	-.9094	.51577
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCV Acquired: 2/7/2012 20:39:43 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 6.1600	10.790	F -10.778	1.2059	.39916	5.0030	1.0195
Stddev	3.0955	.064	3.189	.0027	.00331	.0234	.0061
%RSD	50.252	.59345	29.583	.22036	.82824	.46853	.59666
#1	9.2987	10.731	-10.040	1.2055	.39679	4.9816	1.0183
#2	6.0716	10.781	-8.0234	1.2035	.39774	4.9994	1.0141
#3	3.1096	10.858	-14.271	1.2088	.40293	5.0281	1.0261
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	-10.000%		-10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0131	.99494	.51293	.99433	1.0223	F .64927
Stddev	.0040	.00021	.00262	.00529	.0042	.18805
%RSD	.39205	.02076	.51051	.53224	.40909	28.964
#1	1.0109	.99487	.51254	.99045	1.0180	.72132
#2	1.0107	.99479	.51053	.99219	1.0225	.79064
#3	1.0177	.99518	.51573	1.0004	1.0263	.43584
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20404.	16724.
Stddev	103.	81.
%RSD	.50236	.48500
#1	20505.	16633.
#2	20407.	16787.
#3	20300.	16752.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 20:42:56 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00073	-.00359	-.00070	.00256	.00052	-.00005	-.03653
Stddev	.00033	.01600	.00164	.00026	.00003	.00000	.00901
%RSD	45.888	445.83	233.18	10.306	6.1873	7.3755	24.664
#1	-.00035	.00498	-.00060	.00244	.00052	-.00005	-.02696
#2	-.00088	-.02205	.00088	.00286	.00049	-.00005	-.04485
#3	-.00096	.00630	-.00240	.00238	.00055	-.00005	-.03778
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00004	.00092	.00117	-.00110	.01533	.00710
Stddev	.00005	.00008	.00040	.00020	.00396	.04269	.00147
%RSD	104.12	190.20	43.926	16.684	359.40	278.51	20.648
#1	-.00004	.00006	.00131	.00096	-.00564	.01253	.00801
#2	.00000	.00010	.00094	.00134	.00162	-.02589	.00787
#3	-.00010	-.00005	.00050	.00122	.00072	.05935	.00541
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00223	-.00027	.00071	.01890	-.00089	F -25.523	-.00147
Stddev	.01814	.00067	.00002	.00871	.00062	30.163	.00104
%RSD	814.12	249.55	2.4162	46.092	69.152	118.18	70.821
#1	-.01244	.00015	.00070	.02340	-.00043	-53.004	-.00083
#2	.02251	-.00104	.00073	.02444	-.00160	-30.313	-.00267
#3	-.00338	.00008	.00071	.00886	-.00065	6.7489	-.00091
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 20:42:56 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -3.6762	F .21534	F -14.367	.00058	.00018	.00882	.00044
Stddev	1.6231	.00264	4.112	.00038	.00221	.00090	.00028
%RSD	44.152	1.2263	28.622	65.665	1234.9	10.239	63.595
#1	-4.1472	.21415	-12.913	.00099	.00049	.00981	.00012
#2	-5.0117	.21836	-11.179	.00052	-.00217	.00804	.00057
#3	-1.8697	.21350	-19.008	.00023	.00222	.00861	.00063
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00029	-.00105	-.00018	-.00036	F -.29449
Stddev	.00023	.00073	.00023	.00028	.00009	.11882
%RSD	98.997	249.10	22.342	154.52	25.464	40.349
#1	.00027	-.00016	-.00128	.00002	-.00045	-.26118
#2	.00043	.00113	-.00081	-.00006	-.00036	-.42641
#3	-.00001	-.00010	-.00105	-.00049	-.00027	-.19587
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20137.	16345.
Stddev	76.	13.
%RSD	.37966	.08207
#1	20066.	16332.
#2	20218.	16358.
#3	20127.	16344.

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010305 Acquired: 2/7/2012 20:46:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	-.01473	-.00037	.00879	.00786	.00002
Stddev	.00049	.02506	.00084	.00091	.00021	.00002
%RSD	108.92	170.11	225.15	10.398	2.6563	90.750
#1	-.00072	-.03877	-.00033	.00959	.00801	.00003
#2	.00012	-.01667	-.00123	.00780	.00762	.00001
#3	-.00074	.01124	.00044	.00900	.00795	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	270.53	.00161	.00150	.00196	.00139	.06647
Stddev	1.00	.00010	.00011	.00094	.00078	.00661
%RSD	.36858	6.1970	7.4784	48.011	56.523	9.9473
#1	269.42	.00170	.00162	.00290	.00194	.06753
#2	271.34	.00150	.00147	.00195	.00049	.07249
#3	270.85	.00164	.00140	.00102	.00173	.05940
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.4040	.02520	317.50	.34313	.00029	130.03
Stddev	.0526	.00192	1.08	.00180	.00032	.38
%RSD	.82162	7.6044	.34138	.52359	107.51	.28995
#1	6.3774	.02736	316.36	.34121	.00038	129.69
#2	6.4646	.02456	318.52	.34477	-.00006	130.43
#3	6.3699	.02369	317.61	.34340	.00056	129.96
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010305 Acquired: 2/7/2012 20:46:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02949	F -69.690	.00122	2.7056	F 16539.	F -920730.
Stddev	.00072	21.281	.00055	4.4236	197.	5390.
%RSD	2.4459	30.537	44.934	163.50	1.1926	.58539
#1	.03006	-51.401	.00182	-2.3847	16658.	-921960.
#2	.02868	-64.621	.00111	4.8829	16311.	-925390.
#3	.02974	-93.048	.00073	5.6184	16648.	-914820.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit		900.00			9.0000	9.0000
Low Limit		-.00400			-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	-.00178	2.5466	.00031	.31917	-.01006
Stddev	.00140	.00117	.0120	.00024	.00124	.00173
%RSD	253.28	65.579	.47068	76.677	.38780	17.174
#1	-.00186	-.00047	2.5579	.00043	.31826	-.01097
#2	.00093	-.00272	2.5478	.00046	.32058	-.00806
#3	-.00073	-.00214	2.5341	.00004	.31867	-.01113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	-.00029	-.00049	.02314	F -.33675
Stddev	.00022	.00008	.00025	.12099
%RSD	78.246	16.782	1.0596	35.929
#1	-.00017	-.00059	.02340	-.47471
#2	-.00014	-.00044	.02311	-.24871
#3	-.00054	-.00046	.02291	-.28682
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010305 Acquired: 2/7/2012 20:46:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20099.	16213.
Stddev	302.	68.
%RSD	1.5028	.42228
#1	19904.	16142.
#2	20447.	16218.
#3	19945.	16279.

Approved: February 08, 2012

Sample Name: L1202010306 Acquired: 2/7/2012 20:49:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	-.00770	-.00014	.00776	.00758	.00001
Stddev	.00025	.01904	.00165	.00033	.00035	.00003
%RSD	35.552	247.09	1199.1	4.2860	4.5677	317.94
#1	-.00089	-.02849	-.00182	.00815	.00719	-.00001
#2	-.00077	.00889	.00147	.00757	.00785	.00004
#3	-.00042	-.00351	-.00006	.00758	.00770	-.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	257.60	.00162	.00147	.00270	.00170	.04145
Stddev	.82	.00008	.00018	.00033	.00081	.00296
%RSD	.31758	5.0389	12.253	12.195	47.489	7.1398
#1	256.86	.00153	.00134	.00271	.00166	.03853
#2	257.47	.00164	.00139	.00237	.00252	.04139
#3	258.48	.00169	.00168	.00303	.00091	.04445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.1418	.02170	300.41	.32252	-.00002	123.38
Stddev	.0478	.00166	1.57	.00136	.00019	.64
%RSD	.77852	7.6427	.52213	.42114	882.19	.52016
#1	6.0981	.02340	298.91	.32210	-.00015	122.92
#2	6.1929	.02161	300.30	.32142	.00020	123.11
#3	6.1345	.02009	302.04	.32404	-.00012	124.11
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010306 Acquired: 2/7/2012 20:49:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02804	F -112.48	.00033	F 15.472	F 15945.	F -875760.
Stddev	.00045	32.65	.00098	9.014	45.	720.
%RSD	1.6062	29.029	301.49	58.257	.28210	.08219
#1	.02855	-96.212	.00062	24.522	15918.	-876330.
#2	.02787	-91.151	-.00077	15.398	15919.	-874950.
#3	.02770	-150.06	.00113	6.4958	15996.	-875990.
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	-.00299	2.4143	.00038	.30396	-.00967
Stddev	.00190	.00241	.0049	.00022	.00149	.00047
%RSD	606.34	80.511	.20126	59.179	.49026	4.8320
#1	.00194	-.00022	2.4184	.00060	.30277	-.00913
#2	-.00177	-.00454	2.4089	.00015	.30348	-.00995
#3	.00077	-.00421	2.4156	.00039	.30563	-.00993
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	.00075	-.00041	.02097	F -.32535
Stddev	.00074	.00017	.00019	.19574
%RSD	98.858	40.544	.89646	60.163
#1	.00134	-.00035	.02116	-.53684
#2	.00101	-.00029	.02096	-.15055
#3	-.00009	-.00060	.02078	-.28865
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010306 Acquired: 2/7/2012 20:49:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19725.**	**17018.**
Stddev	76.	37.
%RSD	.38708	.21613
#1	19809.	17046.
#2	19703.	17031.
#3	19661.	16976.

Approved: February 08, 2012

Sample Name: L1202010307 Acquired: 2/7/2012 20:53:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00069**	**-.02571**	**-.00088**	**.01290**	**.00845**	**.00002**
Stddev	.00011	.02363	.00108	.00054	.00005	.00002
%RSD	16.433	91.916	123.08	4.1663	.58708	144.24
#1	-.00082	-.05287	-.00203	.01352	.00844	.00003
#2	-.00065	-.01447	.00011	.01262	.00840	-.00001
#3	-.00061	-.00980	-.00071	.01256	.00850	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**345.32**	**.00166**	**.00087**	**.00251**	**.00062**	**.04549**
Stddev	.20	.00003	.00014	.00045	.00053	.00359
%RSD	.05728	1.5632	16.177	17.966	86.354	7.8895
#1	345.22	.00166	.00089	.00219	.00119	.04171
#2	345.19	.00164	.00099	.00231	.00054	.04592
#3	345.55	.00169	.00072	.00302	.00013	.04885
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.9371**	**.05946**	**610.45**	**.08755**	**-.00012**	**46.934**
Stddev	.0067	.00201	.63	.00036	.00013	.041
%RSD	.11274	3.3751	.10321	.41664	109.28	.08687
#1	5.9308	.06178	610.80	.08792	.00003	46.976
#2	5.9364	.05830	610.82	.08754	-.00022	46.931
#3	5.9441	.05830	609.72	.08719	-.00017	46.895
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Sample Name: L1202010307 Acquired: 2/7/2012 20:53:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01518	F -71.372	-.00129	F 10.591	F 25171.	F -1467e3
Stddev	.00017	48.355	.00138	2.384	300.	22487.
%RSD	1.1200	67.751	106.68	22.507	1.1928	1.5325
#1	.01498	-42.413	-.00267	9.2799	25516.	-1484e3
#2	.01527	-127.19	-.00131	9.1511	25017.	-1442e3
#3	.01529	-44.508	.00009	13.343	24978.	-1477e3
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00138	-.00308	2.8052	.00020	.42474	-.01296
Stddev	.00068	.00171	.0091	.00053	.00048	.00014
%RSD	49.061	55.578	.32561	261.24	.11329	1.1175
#1	-.00062	-.00111	2.8158	.00024	.42422	-.01310
#2	-.00190	-.00389	2.8001	.00070	.42483	-.01281
#3	-.00162	-.00422	2.7998	-.00034	.42517	-.01296
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	-.00109	-.00063	.01584	F -.43990
Stddev	.00129	.00009	.00010	.11724
%RSD	118.11	14.728	.63049	26.651
#1	-.00060	-.00073	.01595	-.31121
#2	-.00012	-.00060	.01575	-.54062
#3	-.00255	-.00055	.01583	-.46787
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010307 Acquired: 2/7/2012 20:53:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19439.**	**17037.**
Stddev	121.	126.
%RSD	.62274	.73854
#1	19331.	16893.
#2	19570.	17124.
#3	19415.	17094.

Approved: February 08, 2012

Sample Name: L1202010308 Acquired: 2/7/2012 20:56:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00090	-.02070	.00014	.01192	.00847	.00003
Stddev	.00009	.03402	.00066	.00021	.00022	.00002
%RSD	10.501	164.34	479.23	1.7751	2.5997	73.674
#1	-.00098	.01796	.00008	.01188	.00857	.00003
#2	-.00080	-.03401	-.00049	.01173	.00863	.00001
#3	-.00093	-.04606	.00082	.01215	.00822	.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	339.47	.00178	.00093	.00291	.00106	.05212
Stddev	1.27	.00006	.00027	.00052	.00033	.00333
%RSD	.37347	3.5806	29.410	17.993	30.783	6.3941
#1	338.01	.00184	.00069	.00334	.00124	.05408
#2	340.20	.00180	.00088	.00233	.00125	.05401
#3	340.21	.00171	.00123	.00306	.00068	.04828
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.8105	.06044	598.70	.09006	-.00003	46.400
Stddev	.0253	.00181	3.96	.00047	.00025	.138
%RSD	.43572	2.9906	.66086	.51870	904.75	.29655
#1	5.8071	.05842	594.21	.09010	-.00024	46.249
#2	5.7871	.06190	600.25	.08958	-.00009	46.435
#3	5.8374	.06100	601.65	.09051	.00025	46.517
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: February 08, 2012

Sample Name: L1202010308 Acquired: 2/7/2012 20:56:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01521	F -63.280	.00074	F 11.070	F 25160.	F -1444e3
Stddev	.00074	8.404	.00387	8.561	101.	8326.
%RSD	4.8930	13.281	522.77	77.334	.40286	.57660
#1	.01547	-55.612	.00437	20.631	25275.	-1444e3
#2	.01579	-61.963	-.00334	4.1139	25121.	-1435e3
#3	.01437	-72.265	.00120	8.4656	25084.	-1452e3
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit		900.00		9.0000	9.0000	9.0000
Low Limit		-.00400		-.00400	-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00168	-.00265	2.7634	-.00016	.41739	-.01197
Stddev	.00115	.00313	.0036	.00020	.00247	.00253
%RSD	68.574	117.93	.12868	125.48	.59218	21.156
#1	.00036	-.00620	2.7619	-.00036	.41458	-.01463
#2	.00247	-.00028	2.7675	-.00014	.41835	-.00959
#3	.00222	-.00147	2.7609	.00003	.41924	-.01169
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	-.00022	-.00052	.01652	F -.31638
Stddev	.00068	.00038	.00013	.14413
%RSD	303.71	71.976	.81613	45.556
#1	-.00063	-.00029	.01665	-.19621
#2	-.00060	-.00032	.01653	-.47618
#3	.00056	-.00096	.01638	-.27675
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Sample Name: L1202010308 Acquired: 2/7/2012 20:56:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	19211.	16945.
Stddev	28.	106.
%RSD	.14338	.62443
#1	19228.	16998.
#2	19179.	17013.
#3	19226.	16823.

Approved: February 08, 2012

Sample Name: L1202010309 Acquired: 2/7/2012 21:00:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00098	.03906	-.00228	.01416	.01401	-.00002
Stddev	.00087	.01917	.00066	.00066	.00032	.00003
%RSD	89.475	49.067	29.033	4.6773	2.2789	137.45
#1	-.00142	.06024	-.00302	.01490	.01366	-.00003
#2	-.00154	.03404	-.00172	.01361	.01429	-.00004
#3	.00003	.02291	-.00212	.01397	.01407	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	328.16	.00007	.00249	.00188	.00096	.05184
Stddev	.32	.00009	.00001	.00030	.00067	.00217
%RSD	.09600	125.24	.31532	15.863	69.028	4.1922
#1	328.05	.00004	.00249	.00195	.00074	.05032
#2	328.51	.00000	.00250	.00213	.00044	.05087
#3	327.91	.00017	.00249	.00155	.00171	.05432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0641	.09248	15.314	.20967	.00038	F 986.16
Stddev	.0940	.00026	.134	.00139	.00051	8.35
%RSD	1.8565	.28281	.87743	.66195	134.04	.84664
#1	4.9696	.09218	15.451	.21084	.00055	988.53
#2	5.0650	.09267	15.182	.20814	-.00019	976.89
#3	5.1576	.09259	15.309	.21003	.00078	993.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						315.00
Low Limit						-.50000

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010309 Acquired: 2/7/2012 21:00:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00598	F -57.547	-.00065	6.9877	F 21555.	F -1198e3
Stddev	.00054	40.006	.00137	14.990	257.	6202.
%RSD	9.0229	69.519	210.57	214.52	1.1925	.51763
#1	.00548	-18.309	.00058	6.1423	21848.	-1204e3
#2	.00655	-56.054	-.00213	-7.5615	21369.	-1192e3
#3	.00589	-98.279	-.00040	22.382	21448.	-1199e3
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit		900.00			9.0000	9.0000
Low Limit		-.00400			-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	-.00391	1.0120	-.00013	.34507	-.01100
Stddev	.00167	.00129	.0024	.00040	.00083	.00054
%RSD	279.58	32.958	.23481	323.22	.24064	4.9557
#1	-.00074	-.00249	1.0142	-.00054	.34526	-.01162
#2	.00247	-.00500	1.0124	.00026	.34579	-.01077
#3	.00006	-.00423	1.0095	-.00009	.34416	-.01060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	-.00036	.00015	.01353	F -.51424
Stddev	.00177	.00043	.00015	.11394
%RSD	499.21	290.12	1.0725	22.156
#1	-.00021	-.00016	.01354	-.55151
#2	.00134	-.00004	.01338	-.60487
#3	-.00220	.00063	.01367	-.38634
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010309 Acquired: 2/7/2012 21:00:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18920.**	**16544.**
Stddev	9.	124.
%RSD	.04869	.74925
#1	18929.	16458.
#2	18911.	16488.
#3	18920.	16686.

Approved: February 08, 2012

Sample Name: L1202010310 Acquired: 2/7/2012 21:04:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	-.01846	-.00123	.01342	.01794	-.00007
Stddev	.00049	.03738	.00112	.00101	.00038	.00002
%RSD	66.177	202.46	90.503	7.5074	2.1016	29.581
#1	-.00044	-.06022	-.00252	.01438	.01836	-.00007
#2	-.00130	-.00707	-.00065	.01351	.01785	-.00009
#3	-.00047	.01190	-.00053	.01237	.01762	-.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	318.79	-.00002	-.00045	.00177	.00176	.04226
Stddev	.32	.00012	.00018	.00031	.00059	.00529
%RSD	.10032	711.89	40.194	17.230	33.573	12.509
#1	319.13	-.00015	-.00049	.00150	.00113	.04387
#2	318.74	.00002	-.00061	.00172	.00185	.04655
#3	318.50	.00008	-.00025	.00210	.00231	.03635
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.5146	.08403	1.0756	.00242	.00067	F 944.40
Stddev	.0549	.00308	.0223	.00081	.00013	8.97
%RSD	.99612	3.6604	2.0719	33.578	19.380	.95024
#1	5.4543	.08753	1.0760	.00222	.00082	954.60
#2	5.5278	.08285	1.0976	.00332	.00062	937.71
#3	5.5617	.08173	1.0530	.00173	.00058	940.88
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						315.00
Low Limit						-.50000

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010310 Acquired: 2/7/2012 21:04:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00109	F -143.04	.00082	.00962	F 20522.	F -1162e3
Stddev	.00034	17.55	.00198	4.3539	269.	3496.
%RSD	31.343	12.269	241.21	45261.	1.3122	.30077
#1	-.00147	-161.59	.00019	4.4943	20239.	-1159e3
#2	-.00097	-140.83	.00303	-4.2006	20776.	-1162e3
#3	-.00082	-126.70	-.00077	-.26478	20552.	-1166e3
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit		900.00			9.0000	9.0000
Low Limit		-.00400			-.00400	-.00400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00212	-.00487	.87201	-.00018	.33455	-.01102
Stddev	.00245	.00147	.00460	.00024	.00069	.00205
%RSD	115.69	30.247	.52749	132.27	.20750	18.617
#1	.00249	-.00341	.86905	-.00001	.33516	-.00869
#2	-.00050	-.00484	.87731	-.00045	.33470	-.01184
#3	.00437	-.00635	.86966	-.00008	.33379	-.01254
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	-.00051	.00031	.00173	F -.69343
Stddev	.00112	.00014	.00011	.07921
%RSD	220.76	45.637	6.3788	11.423
#1	-.00112	.00018	.00161	-.75436
#2	.00078	.00047	.00177	-.72204
#3	-.00118	.00030	.00182	-.60390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				45.000
Low Limit				-.00400

Approved: February 08, 2012

Erin D. Long

Sample Name: L1202010310 Acquired: 2/7/2012 21:04:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18716.**	**16044.**
Stddev	122.	102.
%RSD	.65063	.63616
#1	18807.	15937.
#2	18577.	16054.
#3	18764.	16140.

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 21:08:00 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38801	10.297	.39537	.48321	1.0151	.04866	10.264
Stddev	.01120	.026	.00134	.01201	.0026	.00144	.015
%RSD	2.8878	.25591	.33907	2.4848	.25521	2.9522	.14206
#1	.39381	10.268	.39607	.49069	1.0124	.04953	10.249
#2	.39512	10.319	.39622	.48957	1.0154	.04945	10.263
#3	.37509	10.304	.39383	.46936	1.0176	.04701	10.278
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04975	.20062	.49375	.50704	3.9877	52.407	1.0232
Stddev	.00010	.00115	.01383	.00197	.0010	.138	.0059
%RSD	.19470	.57155	2.8003	.38853	.02643	.26284	.58101
#1	.04977	.20156	.50107	.50849	3.9889	52.257	1.0174
#2	.04983	.20096	.50238	.50783	3.9870	52.436	1.0229
#3	.04964	.19934	.47780	.50479	3.9872	52.528	1.0293
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.124	.49468	1.0134	52.027	.50902	F -29.863	.51105
Stddev	.070	.00197	.0060	.287	.00347	24.078	.00128
%RSD	.68857	.39739	.59023	.55162	.68085	80.628	.25090
#1	10.065	.49417	1.0182	51.770	.51153	-34.189	.51234
#2	10.105	.49302	1.0154	51.974	.51048	-51.486	.50978
#3	10.201	.49685	1.0067	52.337	.50507	-3.9155	.51103
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						-10.000%	

Approved: February 08, 2012

Sample Name: CCV Acquired: 2/7/2012 21:08:00 Type: QC
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 8.8082	F 11.623	F -57.076	1.1973	.39316	4.9542	1.0179
Stddev	8.5024	.098	3.455	.0003	.00144	.0019	.0048
%RSD	96.529	.84697	6.0540	.02783	.36535	.03780	.47284
#1	3.3588	11.723	-61.064	1.1969	.39176	4.9540	1.0224
#2	4.4604	11.619	-54.977	1.1973	.39308	4.9523	1.0184
#3	18.605	11.526	-55.187	1.1976	.39463	4.9561	1.0128
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000	10.000	10.000				
Range	-10.000%	10.000%	-10.000%				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0142	.99668	.50990	.97136	1.0267	F .72239
Stddev	.0056	.00575	.00178	.02765	.0081	.09667
%RSD	.55043	.57651	.34994	2.8465	.79254	13.381
#1	1.0085	.99099	.51119	.98725	1.0326	.74241
#2	1.0146	.99658	.51064	.98740	1.0300	.61728
#3	1.0196	1.0025	.50786	.93943	1.0174	.80747
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20281.	15998.
Stddev	572.	48.
%RSD	2.8192	.30277
#1	19924.	16052.
#2	19979.	15981.
#3	20941.	15960.

Approved: February 08, 2012

Sample Name: CCB Acquired: 2/7/2012 21:11:13 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00098	-.00232	-.00082	.00284	-.00010	-.00001	-.02397
Stddev	.00059	.03584	.00149	.00084	.00020	.00003	.00609
%RSD	60.659	1545.7	182.15	29.501	194.38	181.52	25.423
#1	-.00077	.02266	-.00084	.00238	-.00019	.00000	-.02483
#2	-.00164	.01377	.00068	.00233	-.00024	.00000	-.02959
#3	-.00052	-.04338	-.00229	.00380	.00013	-.00004	-.01749
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	-.00007	.00009	.00105	.00340	.16432	.00154
Stddev	.00004	.00017	.00042	.00068	.00554	.02716	.00237
%RSD	17.749	246.59	445.04	64.628	163.28	16.530	154.58
#1	-.00017	.00004	.00057	.00139	-.00163	.15462	-.00036
#2	-.00024	.00002	-.00023	.00149	.00934	.14334	.00420
#3	-.00022	-.00027	-.00005	.00027	.00248	.19500	.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00721	.00010	.00076	.17863	-.00041	F 2.6905	-.00084
Stddev	.01444	.00016	.00015	.01921	.00039	11.589	.00072
%RSD	200.25	155.99	20.147	10.757	95.304	430.72	86.485
#1	.02286	.00026	.00058	.19806	-.00013	-5.5120	-.00088
#2	-.00558	-.00006	.00083	.15964	-.00025	15.948	-.00009
#3	.00435	.00011	.00086	.17819	-.00085	-2.3644	-.00154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-.01000	

Approved: February 08, 2012

Erin D. Long

Sample Name: CCB Acquired: 2/7/2012 21:11:13 Type: Blank
Method: ICP-THERMO2_6010_200.7(v1728) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 14.611	F .54102	F -31.869	.00005	-.00190	.00658	.00078
Stddev	4.383	.04267	2.261	.00042	.00165	.00040	.00007
%RSD	30.002	7.8863	7.0956	867.91	86.872	6.0437	9.1670
#1	17.672	.56608	-29.267	.00009	-.00105	.00614	.00072
#2	16.571	.49176	-32.977	-.00039	-.00379	.00669	.00076
#3	9.5894	.56523	-33.362	.00045	-.00084	.00691	.00086
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	-.00056	.00045	.00001	-.00030	F -.15120
Stddev	.00002	.00063	.00114	.00010	.00012	.17459
%RSD	12.758	113.76	254.75	1794.4	38.446	115.47
#1	.00012	-.00030	-.00066	.00010	-.00039	-.02082
#2	.00012	-.00009	.00161	-.00011	-.00034	-.34955
#3	.00015	-.00128	.00039	.00003	-.00017	-.08321
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						.10000
Low Limit						-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	20695.	16986.
Stddev	195.	106.
%RSD	.94392	.62207
#1	20544.	16988.
#2	20625.	17091.
#3	20916.	16880.

Approved: February 08, 2012

2.1.2 Metals ICP-MS Data

2.1.2.1 Summary Data

Login Number: L12010767
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG388420 - All acceptance criteria were met.

Matrix Spikes: WG388420 - Sample 01 was chosen by the client for MS/MSD analysis. Samples 02(MS) and 03(MSD) yielded a noncompliant recovery and a noncompliant RPD for copper.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 41610
Approved By: Maren Beery
Maren Beery

Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	ELAN-ICP
Client ID:	MPL-21-0112-1	**Prep Method:**	3015	**Prep Date:**	01/31/2012 11:34
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	01/31/2012 10:51
Workgroup #:	WG388420	**Analyst:**	JYH	**Run Date:**	01/31/2012 17:35
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EL.013112.173502
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00250		0.00100	0.000500
Barium, Total	7440-39-3	0.0567		0.00300	0.00150
Cadmium, Total	7440-43-9		U	0.000600	0.000300
Chromium, Total	7440-47-3	0.00479		0.00200	0.00100
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Copper, Total	7440-50-8	0.00132	J	0.00200	0.00100
Lead, Total	7439-92-1		U	0.00100	0.000500
Nickel, Total	7440-02-0		U	0.00400	0.00200
Selenium, Total	7782-49-2	0.00120		0.00100	0.000500
Silver, Total	7440-22-4		U	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.000100

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	ELAN-ICP
Client ID:	MPL-21-0112-MS	**Prep Method:**	3015	**Prep Date:**	01/31/2012 11:34
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	01/31/2012 10:51
Workgroup #:	WG388420	**Analyst:**	JYH	**Run Date:**	01/31/2012 17:42
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EL.013112.174250
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0	0.0633		0.00100	0.000500
Arsenic, Total	7440-38-2	0.0635		0.00100	0.000500
Barium, Total	7440-39-3	0.117		0.00300	0.00150
Cadmium, Total	7440-43-9	0.0616		0.000600	0.000300
Chromium, Total	7440-47-3	0.0680		0.00200	0.00100
Cobalt, Total	7440-48-4	0.0633		0.00100	0.000500
Copper, Total	7440-50-8	0.0641		0.00200	0.00100
Lead, Total	7439-92-1	0.0663		0.00100	0.000500
Nickel, Total	7440-02-0	0.0628		0.00400	0.00200
Selenium, Total	7782-49-2	0.0564		0.00100	0.000500
Silver, Total	7440-22-4	0.0651		0.00100	0.000500
Thallium, Total	7440-28-0	0.0649		0.000200	0.000100

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	ELAN-ICP
Client ID:	MPL-21-0112-MSD	**Prep Method:**	3015	**Prep Date:**	01/31/2012 11:34
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	01/31/2012 10:51
Workgroup #:	WG388420	**Analyst:**	JYH	**Run Date:**	01/31/2012 17:50
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EL.013112.175036
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0	0.0628		0.00100	0.000500
Arsenic, Total	7440-38-2	0.0646		0.00100	0.000500
Barium, Total	7440-39-3	0.121		0.00300	0.00150
Cadmium, Total	7440-43-9	0.0589		0.000600	0.000300
Chromium, Total	7440-47-3	0.0700		0.00200	0.00100
Cobalt, Total	7440-48-4	0.0636		0.00100	0.000500
Copper, Total	7440-50-8	0.217		0.00200	0.00100
Lead, Total	7439-92-1	0.0672		0.00100	0.000500
Nickel, Total	7440-02-0	0.0646		0.00400	0.00200
Selenium, Total	7782-49-2	0.0579		0.00100	0.000500
Silver, Total	7440-22-4	0.0623		0.00100	0.000500

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Thallium, Total	7440-28-0	0.0662		0.000200	0.000100

2.1.2.2 QC Summary Data

Example 6020 Calculations
Perkin Elmer ELAN 6100

1.0 Initial Calibration (ICAL) Parameters
The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Final volume	100
Vi = Initial volume	40
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in (ug/L)	0.25

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Final volume	200
Vi = Initial volume	0.5
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in (ug/kg)	40

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:	**Example:**
Cx = Concentration calculated as received (wet basis)	40
Px = Percent solids of sample (%wt)	80
$Cdry$ = Concentration calculated as dry weight (ug/kg)	50

50 ug/kg = 0.050 mg/kg

Perkin Elmer ELAN ICP/MS

STANDARDS KEY

QC Std 1 - ICV
QC Std 2 - ICB
QC Std 3 - LLICV
QC Std 4 - ICSA
QC Std 5 - ICSAB
QC Std 6 - CCV
QC Std 7 - CCB
QC Std 8 - LLCCV

Calibration Solutions

Analyte	Stock Conc. (mg/L)	S1 (mg/L)	S2 (mg/L)	S3 (mg/L)	S4 (mg/L)
Al	10	0	0.0004	0.05	0.1
Sb	10	0	0.0004	0.05	0.1
As	10	0	0.0004	0.05	0.1
Ba	10	0	0.0004	0.05	0.1
Be	10	0	0.0004	0.05	0.1
Ca	1000	0	0.04	5	10
Cd	10	0	0.0004	0.05	0.1
Cr	10	0	0.0004	0.05	0.1
Co	10	0	0.0004	0.05	0.1
Cu	10	0	0.0004	0.05	0.1
Fe	1000	0	0.04	5	10
Pb	10	0	0.0004	0.05	0.1
Mg	1000	0	0.04	5	10
Mn	10	0	0.0004	0.05	0.1
Ni	10	0	0.0004	0.05	0.1
K	1000	0	0.04	5	10
Se	10	0	0.0004	0.05	0.1
Ag	10	0	0.0004	0.05	0.1
Na	1000	0	0.04	5	10
Tl	10	0	0.0004	0.05	0.1
V	10	0	0.0004	0.05	0.1
U	1000	0	0.0004	0.05	0.1
Zn	10	0	0.0004	0.05	0.1

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG388377
Analyst: REK
Spike Analyst: REK
Run Date: 01/31/2012 11:34
Method: 3015
Balance: BAL016
Instrument: MW-2

SOP: ME407 Revison 12
Spike Solution: STD47574
Spike Witness: VC
Digestion Tubes Lot #: COA15882
HNO3 Lot #: COA15925

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG388377-02	BLANK	1	40 mL	100 mL	206.895 g	206.876 g		
2	WG388312-01	FBLK	18	40 mL	100 mL	207.169 g	207.155 g		
3	WG388377-03	LCS	1	40 mL	100 mL	206.501 g	206.467 g	.25 mL	
4	L12010515-01	SAMP	1	40 mL	100 mL	209.48 g	209.461 g		01/27/12
5	WG388377-01	REF	1	40 mL	100 mL	206.725 g	206.72 g		
6	L12010767-01	RS01	1	40 mL	100 mL	206.725 g	206.72 g		02/10/12
7	WG388377-04	MS	1	40 mL	100 mL	207.716 g	207.706 g	.25 mL	
8	L12010767-02	MS01	1	40 mL	100 mL	207.716 g	207.706 g	.25 mL	02/10/12
9	WG388377-05	MSD	1	40 mL	100 mL	210.595 g	210.588 g	.25 mL	
10	L12010767-03	SD01	1	40 mL	100 mL	210.595 g	210.588 g	.25 mL	02/10/12
11	L12010769-02	SAMP	18	40 mL	100 mL	205.762 g	205.751 g		02/02/12

Analyst: [signature]

Reviewer: Erin Potter

MW_DIG - Modified 09/30/2009
PDF ID: 2294414
Report generated: 01/31/2012 12:53

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ELAN-ICP Dataset: 013112B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020 SOP: ME700 Rev: 7
Maintenance Log ID: 40477

Calibration Std: STD49730 ICV Std: STD49511 Post Spike: STD47984
ICSA: STD49577 ICSAB: STD49578 Int. Std: STD49729
CCV: STD49677 LLCCV: STD49510

Workgroups: 388245,388055,388420

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	EL.013112.102003	Blank	Blank		1		01/31/12 10:20
2	EL.013112.102749	WG388473-01	Calibration Point		1		01/31/12 10:27
3	EL.013112.103535	WG388473-02	Calibration Point		1		01/31/12 10:35
4	EL.013112.104321	WG388473-03	Calibration Point		1		01/31/12 10:43
5	EL.013112.105109	WG388473-04	Calibration Point		1		01/31/12 10:51
6	EL.013112.105855	WG388473-05	Initial Calibration Verification		1		01/31/12 10:58
7	EL.013112.110631	WG388473-06	Initial Calib Blank		1		01/31/12 11:06
8	EL.013112.111409	WG388473-07	QC Std 3		1		01/31/12 11:14
9	EL.013112.112204	WG388473-08	Low Level Initial Calibration V		1		01/31/12 11:22
10	EL.013112.112943	WG388473-09	Interference Check		1		01/31/12 11:29
11	EL.013112.113722	WG388473-10	Interference Check		1		01/31/12 11:37
12	EL.013112.114500	WG388473-11	CCV		1		01/31/12 11:45
13	EL.013112.115237	WG388473-12	QC Std 7		1		01/31/12 11:52
14	EL.013112.120513	WG388473-13	CCB		1		01/31/12 12:05
15	EL.013112.121248	WG388212-02	Method/Prep Blank	40/100	1		01/31/12 12:12
16	EL.013112.122034	WG388212-03	Laboratory Control S	40/100	1		01/31/12 12:20
17	EL.013112.122819	WG388212-01	Reference Sample		1	L12010740-01	01/31/12 12:28
18	EL.013112.123606	WG388212-04	Matrix Spike	40/100	1	L12010740-01	01/31/12 12:36
19	EL.013112.124352	WG388212-05	Matrix Spike Duplica	40/100	1	L12010740-01	01/31/12 12:43
20	EL.013112.125138	L12010726-01	Q/A MW570-1	40/100	1		01/31/12 12:51
21	EL.013112.125925	L12010726-02	FB MICROBAC-1	40/100	1		01/31/12 12:59
22	EL.013112.130713	L12010685-08	RINSE-1	40/100	1		01/31/12 13:07
23	EL.013112.131500	WG388245-01	Post Digestion Spike		1	L12010685-08	01/31/12 13:15
24	EL.013112.132248	WG388245-02	Serial Dilution		5	L12010685-08	01/31/12 13:22
25	EL.013112.133036	WG388473-14	CCV		1		01/31/12 13:30
26	EL.013112.133813	WG388473-15	CCB		1		01/31/12 13:38
27	EL.013112.134550	L12010685-09	RINSE-2		1		01/31/12 13:45
28	EL.013112.135339	L12010686-01	MPL30-0112-1		1		01/31/12 13:53
29	EL.013112.140126	L12010686-02	MPL29-0112-1		1		01/31/12 14:01
30	EL.013112.140912	L12010686-03	MPL26-0112-1		1		01/31/12 14:09
31	EL.013112.141658	L12010713-36	ORG-SO1-269-14		1		01/31/12 14:16
32	EL.013112.142625	L12010713-38	ORG-SO2-269-14		1		01/31/12 14:26
33	EL.013112.143411	L12010685-05	MW-14 (10-12.5)		10		01/31/12 14:34
34	EL.013112.144158	WG388473-16	CCV		1		01/31/12 14:41

Page: 1 Approved: February 01, 2012

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ELAN-ICP Dataset: 013112B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020 SOP: ME700 Rev: 7
Maintenance Log ID: 40477

Calibration Std: STD49730 ICV Std: STD49511 Post Spike: STD47984
ICSA: STD49577 ICSAB: STD49578 Int. Std: STD49729
CCV: STD49677 LLCCV: STD49510

Workgroups: 388245,388055,388420

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	EL.013112.144935	WG388473-17	CCB		1		01/31/12 14:49
36	EL.013112.145713	WG388473-18	Low Level Continuing Calibra		1		01/31/12 14:57
37	EL.013112.150452	WG388473-19	CCV		1		01/31/12 15:04
38	EL.013112.151228	WG388473-20	CCB		1		01/31/12 15:12
39	EL.013112.152115	L12010685-09	RINSE-2	40/100	1		01/31/12 15:21
40	EL.013112.152903	L12010686-01	MPL30-0112-1	40/100	1		01/31/12 15:29
41	EL.013112.153650	L12010686-02	MPL29-0112-1	40/100	1		01/31/12 15:36
42	EL.013112.154436	L12010686-03	MPL26-0112-1	40/100	1		01/31/12 15:44
43	EL.013112.155222	L12010713-36	ORG-SO1-269-14	40/100	1		01/31/12 15:52
44	EL.013112.160949	L12010713-38	ORG-SO2-269-14	40/100	1		01/31/12 16:09
45	EL.013112.161735	L12010685-05	MW-14 (10-12.5)	.524/200	10		01/31/12 16:17
46	EL.013112.162522	WG388377-02	Method/Prep Blank	40/100	1		01/31/12 16:25
47	EL.013112.163309	WG388377-03	Laboratory Control S	40/100	1		01/31/12 16:33
48	EL.013112.164057	WG388473-21	CCV		1		01/31/12 16:40
49	EL.013112.164834	WG388473-22	CCB		1		01/31/12 16:48
50	EL.013112.165612	WG388473-23	Low Level Continuing Calibra		1		01/31/12 16:56
51	EL.013112.170350	WG388312-01	Fluid Blank		1		01/31/12 17:03
52	EL.013112.171138	L12010515-01	P204-4402	40/100	10		01/31/12 17:11
53	EL.013112.171926	L12010515-01	P204-4402		50		01/31/12 17:19
54	EL.013112.172714	L12010769-02	60500-SSP0219	40/100	1		01/31/12 17:27
55	EL.013112.173502	WG388377-01	Reference Sample		1	L12010767-01	01/31/12 17:35
56	EL.013112.174250	WG388377-04	Matrix Spike	40/100	1	L12010767-01	01/31/12 17:42
57	EL.013112.175036	WG388377-05	Matrix Spike Duplica	40/100	1	L12010767-01	01/31/12 17:50
58	EL.013112.175823	WG388420-01	Post Digestion Spike		1	L12010767-01	01/31/12 17:58
59	EL.013112.180609	WG388420-02	Serial Dilution		5	L12010767-01	01/31/12 18:06
60	EL.013112.181356	WG388473-24	CCV		1		01/31/12 18:13
61	EL.013112.182133	WG388473-25	CCB		1		01/31/12 18:21

Comments

Seq.	Rerun	Dil.	Reason	Analytes
8			Rerun for selenium.	
13			rerun for thallium.	

Page: 2 Approved: February 01, 2012

Microbac Laboratories Inc.

Data Checklist

Date: 31-JAN-2012
Analyst: JYH
Analyst: NA
Method: 6020
Instrument: ELAN-ICP
Curve Workgroup: 388473
Runlog ID: 44924
Analytical Workgroups: 388245,388055,388420

Calibration/Linearity	X
ICV/CCV	X
ICV RSD <= 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	686,726,515,767,769
Client Forms	X
Level X	
Level 3	
Level 4	686,726,515,767,769
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	SLP
Comments	

Primary Reviewer:

Secondary Reviewer:
01-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-01-2012 13:11:00

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6020 AAB#: WG388420

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12					01/31/12	3.9	180		01/31/12	4.1	180	
MPL-21-0112-MS	02	01/27/12					01/31/12	3.9	180		01/31/12	4.1	180	
MPL-21-0112-MSD	03	01/27/12					01/31/12	3.9	180		01/31/12	4.1	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2295668
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: EL.013112.162522
Prep Date: 01/31/12 11:34
Analyzed Date: 01/31/12 16:25
Analyst: JYH

Work Group: WG388420
Blank Sample ID: WG388377-02
Instrument ID: ELAN-ICP
Method: 6020

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388377-03	EL.013112.163309	01/31/12 16:33	01
MPL-21-0112-1	L12010767-01	EL.013112.173502	01/31/12 17:35	01
MPL-21-0112-MS	L12010767-02	EL.013112.174250	01/31/12 17:42	01
MPL-21-0112-MSD	L12010767-03	EL.013112.175036	01/31/12 17:50	01

Report Name: BLANK_SUMMARY
PDF File ID: 2295669
Report generated 02/01/2012 11:36

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 01/31/12 11:34 Sample ID: WG388377-02
Instrument ID: ELAN-ICP Run Date: 01/31/12 16:25 Prep Method: 3015
File ID: EL.013112.162522 Analyst: JYH Method: 6020
Workgroup (AAB#): WG388420 Matrix: Water Units: mg/L
Contract #: Cal ID: ELAN-I-31-JAN-12

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Antimony, Total	0.000500	0.00100	0.000500	1	U
Arsenic, Total	0.000500	0.00100	0.000500	1	U
Barium, Total	0.00150	0.00300	0.00150	1	U
Cadmium, Total	0.000300	0.000600	0.000300	1	U
Chromium, Total	0.00100	0.00200	0.00100	1	U
Cobalt, Total	0.000500	0.00100	0.000500	1	U
Copper, Total	0.00100	0.00200	0.00100	1	U
Lead, Total	0.000500	0.00100	0.000500	1	U
Nickel, Total	0.00200	0.00400	0.00200	1	U
Selenium, Total	0.000500	0.00100	0.000500	1	U
Silver, Total	0.000500	0.00100	0.000500	1	U
Thallium, Total	0.000100	0.000200	0.000100	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name: BLANK
PDF ID: 2295670
01-FEB-2012 11:36

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Run Date: 01/31/2012 Sample ID: WG388377-03
Instrument ID: ELAN-ICP Run Time: 16:33 Prep Method: 3015
File ID: EL.013112.163309 Analyst: JYH Method: 6020
Workgroup (AAB#): WG388420 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD47574 Cal ID: ELAN-I-31-JAN-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Antimony, Total	0.0625	0.0603	96.5	80 - 120	
Arsenic, Total	0.0625	0.0600	96.0	80 - 120	
Barium, Total	0.0625	0.0619	99.1	80 - 120	
Cadmium, Total	0.0625	0.0627	100	80 - 120	
Chromium, Total	0.0625	0.0609	97.4	80 - 120	
Cobalt, Total	0.0625	0.0601	96.1	80 - 120	
Copper, Total	0.0625	0.0609	97.4	80 - 120	
Lead, Total	0.0625	0.0632	101	80 - 120	
Nickel, Total	0.0625	0.0608	97.2	80 - 120	
Selenium, Total	0.0625	0.0586	93.7	80 - 120	
Silver, Total	0.0625	0.0618	98.9	80 - 120	
Thallium, Total	0.0625	0.0615	98.4	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2295671
Report generated: 02/01/2012 11:36

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: ELAN-ICP- 31-JAN-12 Worknum: WG388420

Instrument ID: ELAN-ICP Contract #: Prep Method: 3015

Parent ID: L12010767-01 File ID: EL.013112.173502 Dil: 1 Method: 6020

Sample ID: L12010767-02 MS File ID: EL.013112.174250 Dil: 1 Matrix: Water

Sample ID: L12010767-03 MSD File ID: EL.013112.175036 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Antimony, Total	U	0.0625	0.0633	101	0.0625	0.0628	100	0.830	80 - 120	20	
Arsenic, Total	0.00250	0.0625	0.0635	97.6	0.0625	0.0646	99.3	1.66	80 - 120	20	
Barium, Total	0.0567	0.0625	0.117	96.6	0.0625	0.121	102	3.08	80 - 120	20	
Cadmium, Total	U	0.0625	0.0616	98.6	0.0625	0.0589	94.3	4.41	80 - 120	20	
Chromium, Total	0.00479	0.0625	0.0680	101	0.0625	0.0700	104	2.85	80 - 120	20	
Cobalt, Total	U	0.0625	0.0633	101	0.0625	0.0636	102	0.593	80 - 120	20	
Copper, Total	0.00132	0.0625	0.0641	100	0.0625	0.217	345	109	80 - 120	20	*#
Lead, Total	U	0.0625	0.0663	106	0.0625	0.0672	108	1.41	80 - 120	20	
Nickel, Total	U	0.0625	0.0628	101	0.0625	0.0646	103	2.83	80 - 120	20	
Selenium, Total	0.00120	0.0625	0.0564	88.3	0.0625	0.0579	90.7	2.64	80 - 120	20	
Silver, Total	U	0.0625	0.0651	104	0.0625	0.0623	99.7	4.26	80 - 120	20	
Thallium, Total	U	0.0625	0.0649	104	0.0625	0.0662	106	2.05	80 - 120	20	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2295672
Report generated 02/01/2012 11:36

Microbac Laboratories Inc.
Serial Dilution Report

Login: L12010767 **Worknum:** WG388420
Instrument: ELAN-ICP **Method:** 6020
Serial Dil: WG388420-02 **File ID:** EL.013112.180609 **Dil:** 5 **Units:** ug/L
Sample: L12010767-01 **File ID:** EL.013112.173502 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Antimony	ND	U	ND	U		
Arsenic	1.00	X	1.26	F	26.00	
Barium	22.7	X	23.6	X	4.20	
Cadmium	ND	U	ND	U		
Chromium	1.92	X	ND	U		
Cobalt	ND	U	ND	U		
Copper	0.529	F	ND	U		
Lead	ND	U	ND	U		
Nickel	ND	U	ND	U		
Selenium	0.479	X	ND	U		
Silver	ND	U	ND	U		
Thallium	ND	U	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 100 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 100 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 2295666
02/01/2012 11:36

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L12010767 **Worknum:** WG388420
Instrument ID: ELAN-ICP **Method:** 6020
Post Spike ID: WG388420-01 **File ID:** EL.013112.175823 **Dil:** 1 **Units:** ug/L
Sample ID: L12010767-01 **File ID:** EL.013112.173502 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ANTIMONY	48.0		0	U	50	96.0	75 - 125	
ARSENIC	48.4		1.00		50	94.8	75 - 125	
BARIUM	71.2		22.7		50	97.0	75 - 125	
CADMIUM	46.8		0	U	50	93.5	75 - 125	
CHROMIUM	50.6		1.92		50	97.3	75 - 125	
COBALT	48.4		0	U	50	96.9	75 - 125	
COPPER	49.6		0.529	F	50	98.1	75 - 125	
LEAD	50.6		0	U	50	101.2	75 - 125	
NICKEL	48.5		0	U	50	97.0	75 - 125	
SELENIUM	44.6		0.479		50	88.3	75 - 125	
SILVER	48.2		0	U	50	96.5	75 - 125	
THALLIUM	49.2		0	U	50	98.5	75 - 125	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 2295667
Report generated: 02/01/2012 11:36

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	L12010767	Workgroup (AAB#):	WG388420
Analytical Method:	6020	Instrument ID:	ELAN-ICP
ICAL Worknum:	WG388473	Initial Calibration Date:	31-JAN-2012 10:51

	WG388473-01		WG388473-02		WG388473-03		WG388473-04			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ANTIMONY	0	20.4	.4	1860	50	217000	100	462000	.999793	
ARSENIC	0	-177	.4	333	50	59100	100	125000	.999927	
BARIUM	0	44.0	.4	724	50	80900	100	172000	.999978	
CADMIUM	0	1.31	.4	598	50	69800	100	143000	1	
CHROMIUM	0	6900	.4	10700	50	398000	100	813000	1	
COBALT	0	63.3	.4	4220	50	460000	100	959000	.999987	
COPPER	0	151	.4	977	50	91600	100	191000	.999985	
LEAD	0	1090	.4	11400	50	1180000	100	2470000	.999997	
NICKEL	0	35.3	.4	844	50	95900	100	197000	.999998	
SELENIUM	0	-0.444	.4	57.9	50	5530	100	11800	.999843	
SILVER	0	76.3	.4	2710	50	294000	100	631000	.999724	
THALLIUM	0	29.7	.4	3030	50	349000	100	734000	.999999	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 2295676
Report generated: 01-FEB-2012 10:57

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L12010767
Instrument ID: ELAN-ICP
File ID: EL.013112.110631
Workgroup (AAB#): WG388420
Matrix: WATER

Run Date: 01/31/2012
Run Time: 11:06
Analyst: JYH
Cal ID: ELAN-ICP - 31-JAN-12

Sample ID: WG388473-06
Method: 6020
Units: ug/L

Analytes	MDL	RDL	Concentration	Qualifier
SILVER	.2	.4	.2	U
ARSENIC	.2	.4	.2	U
BARIUM	.6	1.2	.6	U
CADMIUM	.12	.24	.12	U
COBALT	.2	.4	.2	U
CHROMIUM	.4	.8	.4	U
COPPER	.4	.8	.4	U
NICKEL	.8	1.6	.8	U
LEAD	.2	.4	.2	U
ANTIMONY	.2	.4	.2	U
SELENIUM	.2	.4	.2	U
THALLIUM	.04	.08	.04	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 2295678
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388473-13
Instrument ID: ELAN-ICP
Run Time: 12:05
Method: 6020
File ID: EL.013112.120513
Analyst: JYH
Units: ug/L
Workgroup (AAB#): WG388420
Cal ID: ELAN-I - 31-JAN-12
Matrix: WATER
QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cadmium	0.120	0.240	0.120	U
Chromium	0.400	0.800	0.400	U
Cobalt	0.200	0.400	0.200	U
Copper	0.400	0.800	0.400	U
Lead	0.200	0.400	0.200	U
Nickel	0.800	1.60	0.800	U
Selenium	0.200	0.400	0.200	U
Silver	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2295681
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388473-20
Instrument ID: ELAN-ICP
Run Time: 15:12
Method: 6020
File ID: EL.013112.151228
Analyst: JYH
Units: ug/L
Workgroup (AAB#): WG388420
Cal ID: ELAN-I - 31-JAN-12
Matrix: WATER
QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cadmium	0.120	0.240	0.120	U
Chromium	0.400	0.800	0.400	U
Cobalt	0.200	0.400	0.200	U
Copper	0.400	0.800	0.400	U
Lead	0.200	0.400	0.200	U
Nickel	0.800	1.60	0.800	U
Selenium	0.200	0.400	0.200	U
Silver	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2295681
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388473-22
Instrument ID: ELAN-ICP
Run Time: 16:48
Method: 6020
File ID: EL.013112.164834
Analyst: JYH
Units: ug/L
Workgroup (AAB#): WG388420
Cal ID: ELAN-I - 31-JAN-12
Matrix: WATER
QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cadmium	0.120	0.240	0.120	U
Chromium	0.400	0.800	0.400	U
Cobalt	0.200	0.400	0.200	U
Copper	0.400	0.800	0.400	U
Lead	0.200	0.400	0.200	U
Nickel	0.800	1.60	0.800	U
Selenium	0.200	0.400	0.200	U
Silver	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2295681
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388473-25
Instrument ID: ELAN-ICP
Run Time: 18:21
Method: 6020
File ID: EL.013112.182133
Analyst: JYH
Units: ug/L
Workgroup (AAB#): WG388420
Cal ID: ELAN-I - 31-JAN-12
Matrix: WATER
QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cadmium	0.120	0.240	0.120	U
Chromium	0.400	0.800	0.400	U
Cobalt	0.200	0.400	0.200	U
Copper	0.400	0.800	0.400	U
Lead	0.200	0.400	0.200	U
Nickel	0.800	1.60	0.800	U
Selenium	0.200	0.400	0.200	U
Silver	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2295681
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L12010767 Run Date: 01/31/2012 Sample ID: WG388473-05
Instrument ID: ELAN-ICP Run Time: 10:58 Method: 6020
File ID: EL.013112.105855 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG388420 Cal ID: ELAN-I - 31-JAN-12
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Antimony		50	48.8	97.5	90 - 110	
Arsenic		50	50.3	101	90 - 110	
Barium		50	49.9	99.8	90 - 110	
Cadmium		50	48.9	97.8	90 - 110	
Chromium		50	50.7	101	90 - 110	
Cobalt		50	50.9	102	90 - 110	
Copper		50	50.9	102	90 - 110	
Lead		50	49.9	99.8	90 - 110	
Nickel		50	51.3	103	90 - 110	
Selenium		50	51.6	103	90 - 110	
Silver		50	49.9	99.9	90 - 110	
Thallium		50	49.8	99.6	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2295677
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388473-11
Instrument ID: ELAN-ICP
Run Time: 11:45
Method: 6020
File ID: EL.013112.114500
Analyst: JYH
QC Key: DOD4
Workgroup (AAB#): WG388420
Cal ID: ELAN-I - 31-JAN-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		50.0	49.4	ug/L	98.8	90 - 110		
Arsenic		50.0	48.8	ug/L	97.6	90 - 110		
Barium		50.0	48.6	ug/L	97.3	90 - 110		
Cadmium		50.0	49.6	ug/L	99.2	90 - 110		
Chromium		50.0	48.7	ug/L	97.4	90 - 110		
Cobalt		50.0	50.0	ug/L	100	90 - 110		
Copper		50.0	49.6	ug/L	99.3	90 - 110		
Lead		50.0	51.7	ug/L	103	90 - 110		
Nickel		50.0	49.4	ug/L	98.8	90 - 110		
Selenium		50.0	49.5	ug/L	99.0	90 - 110		
Silver		50.0	50.9	ug/L	102	90 - 110		
Thallium		50.0	52.3	ug/L	105	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2295680
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388473-19
Instrument ID: ELAN-ICP
Run Time: 15:04
Method: 6020
File ID: EL.013112.150452
Analyst: JYH
QC Key: DOD4
Workgroup (AAB#): WG388420
Cal ID: ELAN-I - 31-JAN-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		50.0	49.5	ug/L	99.0	90 - 110		
Arsenic		50.0	48.9	ug/L	97.9	90 - 110		
Barium		50.0	49.7	ug/L	99.3	90 - 110		
Cadmium		50.0	48.4	ug/L	96.7	90 - 110		
Chromium		50.0	48.5	ug/L	97.0	90 - 110		
Cobalt		50.0	49.6	ug/L	99.2	90 - 110		
Copper		50.0	48.7	ug/L	97.4	90 - 110		
Lead		50.0	50.4	ug/L	101	90 - 110		
Nickel		50.0	49.1	ug/L	98.2	90 - 110		
Selenium		50.0	48.6	ug/L	97.2	90 - 110		
Silver		50.0	50.4	ug/L	101	90 - 110		
Thallium		50.0	50.1	ug/L	100	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2295680
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388473-21
Instrument ID: ELAN-ICP
Run Time: 16:40
Method: 6020
File ID: EL.013112.164057
Analyst: JYH
QC Key: DOD4
Workgroup (AAB#): WG388420
Cal ID: ELAN-I - 31-JAN-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		50.0	49.8	ug/L	99.5	90 - 110		
Arsenic		50.0	48.8	ug/L	97.7	90 - 110		
Barium		50.0	49.3	ug/L	98.7	90 - 110		
Cadmium		50.0	48.4	ug/L	96.7	90 - 110		
Chromium		50.0	48.2	ug/L	96.5	90 - 110		
Cobalt		50.0	49.1	ug/L	98.2	90 - 110		
Copper		50.0	48.0	ug/L	96.0	90 - 110		
Lead		50.0	49.8	ug/L	99.7	90 - 110		
Nickel		50.0	47.9	ug/L	95.7	90 - 110		
Selenium		50.0	48.2	ug/L	96.3	90 - 110		
Silver		50.0	50.4	ug/L	101	90 - 110		
Thallium		50.0	49.5	ug/L	98.9	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2295680
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388473-24
Instrument ID: ELAN-ICP
Run Time: 18:13
Method: 6020
File ID: EL.013112.181356
Analyst: JYH
QC Key: DOD4
Workgroup (AAB#): WG388420
Cal ID: ELAN-I - 31-JAN-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		50.0	49.9	ug/L	99.8	90 - 110		
Arsenic		50.0	49.5	ug/L	99.1	90 - 110		
Barium		50.0	50.4	ug/L	101	90 - 110		
Cadmium		50.0	50.3	ug/L	101	90 - 110		
Chromium		50.0	49.2	ug/L	98.5	90 - 110		
Cobalt		50.0	49.2	ug/L	98.4	90 - 110		
Copper		50.0	48.7	ug/L	97.3	90 - 110		
Lead		50.0	50.1	ug/L	100	90 - 110		
Nickel		50.0	48.8	ug/L	97.5	90 - 110		
Selenium		50.0	48.5	ug/L	97.0	90 - 110		
Silver		50.0	50.7	ug/L	101	90 - 110		
Thallium		50.0	49.7	ug/L	99.5	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2295680
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.
LOW LEVEL CALIBRATION VERIFICATION

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388473-08
Instrument ID: ELAN-ICP
Run Time: 11:22
Method: 6020
File ID: EL.013112.112204
Analyst: JYH
QC Key: DOD4
Workgroup (AAB#): WG388420
Cal ID: ELAN-I - 31-JAN-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Cadmium		0.200	0.205	ug/L	103	80 - 120		
Thallium		0.0800	0.0795	ug/L	99.4	80 - 120		

* Exceeds LIMITS Criteria

LLCCV - Modified 1/7/2010
PDF File ID: 2295840
Report generated 02/01/2012 13:42

Microbac Laboratories Inc.
LOW LEVEL CALIBRATION VERIFICATION

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388473-18
Instrument ID: ELAN-ICP
Run Time: 14:57
Method: 6020
File ID: EL.013112.145713
Analyst: JYH
QC Key: DOD4
Workgroup (AAB#): WG388420
Cal ID: ELAN-I - 31-JAN-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Cadmium		0.200	0.215	ug/L	107	80 - 120		
Thallium		0.0800	0.0857	ug/L	107	80 - 120		

* Exceeds LIMITS Criteria

LLCCV - Modified 1/7/2010
PDF File ID: 2295840
Report generated 02/01/2012 13:42

Microbac Laboratories Inc.
LOW LEVEL CALIBRATION VERIFICATION

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388473-23
Instrument ID: ELAN-ICP
Run Time: 16:56
Method: 6020
File ID: EL.013112.165612
Analyst: JYH
QC Key: DOD4
Workgroup (AAB#): WG388420
Cal ID: ELAN-I - 31-JAN-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Cadmium		0.200	0.202	ug/L	101	80 - 120		
Thallium		0.0800	0.0932	ug/L	117	80 - 120		

* Exceeds LIMITS Criteria

LLCCV - Modified 1/7/2010
PDF File ID: 2295840
Report generated 02/01/2012 13:42

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L12010767
Instrument ID: ELAN-ICP
Sol. A : WG388473-09 **File ID:** EL.013112.112943
Sol. AB : WG388473-10 **File ID:** EL.013112.113722

Workgroup (AAB#): WG388420
Method: 6020
Units: ug/L
Matrix: Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Antimony	NS	0.0503	NS	100	115	115	
Arsenic	NS	-0.0360	NS	100	108	108	
Barium	NS	0.0135	NS	100	108	108	
Cadmium	NS	0.0903	NS	100	113	113	
Chromium	NS	0.0846	NS	100	108	108	
Cobalt	NS	-0.0205	NS	100	111	111	
Copper	NS	0.147	NS	100	111	111	
Lead	NS	0.00550	NS	100	114	114	
Nickel	NS	0.441	NS	100	111	111	
Selenium	NS	-0.115	NS	100	110	110	
Silver	NS	-0.00620	NS	100	117	117	
Thallium	NS	0.000700	NS	100	111	111	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
 # = Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 2295679
Report generated 02/01/2012 10:57

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L12010767 **Analytical Method:** 6020
Analytical Workgroup: WG388420 **Matrix:** 1
Instrument: ELAN-ICP **Analyst:** JYH
ICAL Date: 31-JAN-2012 10:27

			BISMUTH	GERMANIUM	INDIUM	TERBIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec	% Rec
L12010767-01	SAMP	31-JAN-2012 17:35	100.634	100.401	99.015	104.18
L12010767-02	SAMP	31-JAN-2012 17:42	96.466	97.468	95.667	101.385
L12010767-03	SAMP	31-JAN-2012 17:50	99.374	99.569	100.666	105.994
WG388377-02	BLANK	31-JAN-2012 16:25	99.22	100.737	100.76	99.732
WG388377-03	LCS	31-JAN-2012 16:33	98.305	102.806	101.373	101.743
WG388420-01	PSPK	31-JAN-2012 17:58	96.515	96.672	97.621	99.988
WG388420-02	SERIAL	31-JAN-2012 18:06	98.701	100.645	99.584	98.476
WG388473-05	ICV	31-JAN-2012 10:58	110.762	108.561	111.558	111.935
WG388473-06	ICB	31-JAN-2012 11:06	115.259	113.835	116.399	114.494
WG388473-08	LLICV	31-JAN-2012 11:22	108.854	106.494	108.043	108.576
WG388473-09	ICS	31-JAN-2012 11:29	109.692	105.953	108.17	109.09
WG388473-10	ICS	31-JAN-2012 11:37	105.077	100.481	95.991	102.292
WG388473-11	CCV	31-JAN-2012 11:45	110.021	115.083	112.249	115.828
WG388473-13	CCB	31-JAN-2012 12:05	105.42	106.702	108.229	107.096
WG388473-18	LLCCV	31-JAN-2012 14:57	84.558	86.71	86.21	85.765
WG388473-19	CCV	31-JAN-2012 15:04	88.233	92.611	91.036	92.164
WG388473-20	CCB	31-JAN-2012 15:12	83.702	87.295	86.044	86.24
WG388473-21	CCV	31-JAN-2012 16:40	99.059	105.541	102.438	103.132
WG388473-22	CCB	31-JAN-2012 16:48	96.94	101.959	102.031	101.096
WG388473-23	LLCCV	31-JAN-2012 16:56	98.991	101.009	100.81	100.756
WG388473-24	CCV	31-JAN-2012 18:13	99.763	104.641	103.587	104.131
WG388473-25	CCB	31-JAN-2012 18:21	109.63	111.097	110.955	112.259

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 2295839
Report generated: 02/01/2012 11:36

Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L12010767 **Date:** 12/29/2011
Insturment ID: ELAN-ICP **Method:** 6020

Analyte	Integration Time (Sec.)	Concentration (ug/L)
Antimony	1.00	100.0
Arsenic	1.00	100.0
Barium	1.00	100.0
Cadmium	1.00	100.0
Chromium	1.00	100.0
Cobalt	1.00	100.0
Copper	1.00	100.0
Lead	1.00	100.0
Manganese	1.00	100.0
Nickel	1.00	100.0
Selenium	1.00	100.0
Silver	1.00	100.0
Thallium	1.00	100.0
Uranium	1.00	100.0
Vanadium	1.00	100.0
Zinc	1.00	100.0

Comments:
All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 2295674
Report generated: 02/01/2012 10:57

2.1.2.3 Raw Data

Instrument Tuning Report

File Name: 06302008.tun
File Path: C:\Elandata\Tuning\06302008.tun

Sample Information

Sample Date/Time: Tuesday, January 31, 2012 08:56:32

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	2.976	608	2060	0.656	
Li	7.016	7.029	1590	2060	0.647	
Co	58.933	58.978	14283	1970	0.706	
Ce	139.905	139.929	33994	2020	0.690	
Tl	204.975	204.976	49690	2263	0.701	

Relative Std. Dev.

Mass	Meas. Intens. RSD
2.000	2.758
3.000	3.057
4.000	15.499
5.000	22.343
6.000	4.077
7.000	3.487
8.000	50.200
9.000	5.388
58.000	2.489
59.000	2.547
60.000	13.770
139.000	3.897
140.000	2.639
141.000	12.262
204.000	3.987
205.000	2.597
206.000	2.809

Report Date/Time: Tuesday, January 31, 2012 08:57:44
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Approved: February 01, 2012

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, January 31, 2012 08:59:57
Sample Description:
Method File: C:\Elandata\Method\6020 DAILY.mth
Dataset File: C:\elandata\Dataset\Default\Sample.680
Tuning File: C:\Elandata\Tuning\06302008.tun
Optimization File: C:\elandata\Optimize\default.dac
Dual Detector Mode: Dual

Acq. Dead Time(ns): 60
Current Dead Time (ns): 60

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	67879.8	67879.774	871.588	1.3
	Rh	102.9	369924.4	369924.442	4162.501	1.1
	In	114.9	723017.0	723016.978	7127.528	1.0
	Pb	208.0	225554.3	225554.333	3311.738	1.5
	U	238.1	92.2	92.201	6.825	7.4
⌈>	Ba	137.9	336922.8	336922.835	1247.796	0.4
⌊	Ba++	69.0	5753.3	0.017	0.000	2.0
⌈>	Ce	139.9	421399.8	421399.833	6553.963	1.6
⌊	CeO	155.9	11433.2	0.027	0.000	1.8
	Bkgd	220.0	8.8	8.800	2.139	24.3
	Ar2	79.9	5388493.1	5388493.138	41288.475	0.8

Current Optimization File Data

Current Value	Description
1.02	Nebulizer Gas Flow
7.50	Lens Voltage
1500.00	ICP RF Power
-1750.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
20.00	Discriminator Threshold
-10.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	37	6.8	2819.8
Co	59	37	7.0	89082.9
Rh	103	37	7.5	153239.8
Pb	208	37	10.0	124472.4

Sample ID: Sample
Report Date/Time: Tuesday, January 31, 2012 09:02:05
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: Blank

Sample Date/Time: Tuesday, January 31, 2012 10:20:03
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12926.719					ug/L
	Be	9	7.333					ug/L
	Al	27	2783.799					ug/L
>	Sc	45	183805.171					ug/L
	Ti	49	46.671					ug/L
	V	51	2098.338					ug/L
	Cr	52	6593.006					ug/L
	Cr	53	446.724					ug/L
	Mn	55	270.007					ug/L
	Co	59	58.667					ug/L
	Ni	60	34.334					ug/L
	Cu	65	143.669					ug/L
	Zn	66	93.001					ug/L
>	Ge	72	425523.400					ug/L
	As	75	-150.898					ug/L
	Se	77	72.667					ug/L
	Se	82	4.858					ug/L
	Rb	85	29.334					mg/L
	Y	89	279926.359					ug/L
	Rh	103	9.333					ug/L
	Mo	98	25.493					ug/L
	Ag	107	71.001					ug/L
	Cd	114	2.814					ug/L
>	In	115	390429.463					ug/L
	Sn	118	278.805					ug/L
	Sb	123	19.035					ug/L
	Ba	135	38.334					ug/L
	Ce	140	53.339					ug/L
>	Tb	159	523231.531					ug/L
	Ho	165	6.667					ug/L
	Tl	203	29.667					ug/L
	Tl	205	63.340					ug/L
	Pb	206	231.672					ug/L
	Pb	207	210.338					ug/L
	Pb	208	984.700					ug/L
	U	238	42.667					ug/L
>	Bi	209	417975.199					ug/L

Sample ID: Blank
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Na	23	39661.879		mg/L
Mg	24	373.379		mg/L
K	39	490624.266		mg/L
Ca	43	156.684		mg/L
Fe	54	34636.845		mg/L
Fe	57	7477.436		mg/L
Sc-1	45	183805.171		mg/L
Cl	35	28804.376		mg/L
Kr	83	54.667		mg/L
Br	81	7175.090		mg/L
P	31	8596.445		mg/L
S	34	179500.077		mg/L
Sr	88	56.673		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72					
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115					
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159					
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209					

Sample ID: Blank
Report Date/Time: Tuesday, January 31, 2012 10:22:15
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Blank
Report Date/Time: Tuesday, January 31, 2012 10:22:15
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Tuesday, January 31, 2012 10:27:49
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14913.334	0.01				ug/L
	Be	9	9.333	0.00				ug/L
	Al	27	2700.441	-0.00				ug/L
>	Sc	45	192464.904	192464.90				ug/L
	Ti	49	70.007	0.00				ug/L
	V	51	2243.671	-0.00				ug/L
	Cr	52	6898.926	-0.00				ug/L
	Cr	53	443.390	-0.00				ug/L
	Mn	55	280.008	-0.00				ug/L
	Co	59	63.334	-0.00				ug/L
	Ni	60	35.334	-0.00				ug/L
	Cu	65	151.003	-0.00				ug/L
	Zn	66	79.335	-0.00				ug/L
>	Ge	72	470819.907	470819.91				ug/L
	As	75	-177.408	-0.00				ug/L
	Se	77	61.334	-0.00				ug/L
	Se	82	-0.444	-0.00				ug/L
	Rb	85	28.667	-0.00				mg/L
	Y	89	311164.674	31238.32				ug/L
	Rh	103	15.667	6.33				ug/L
	Mo	98	23.525	-0.00				ug/L
	Ag	107	76.334	-0.00				ug/L
	Cd	114	1.308	-0.00				ug/L
>	In	115	431278.023	431278.02				ug/L
	Sn	118	307.206	-0.00				ug/L
	Sb	123	20.366	-0.00				ug/L
	Ba	135	44.001	0.00				ug/L
	Ce	140	66.674	0.00				ug/L
>	Tb	159	588951.051	588951.05				ug/L
	Ho	165	23.336	0.00				ug/L
	Tl	203	29.667	-0.00				ug/L
	Tl	205	73.341	0.00				ug/L
	Pb	206	286.008	0.00				ug/L
	Pb	207	229.672	-0.00				ug/L
	Pb	208	1093.039	0.00				ug/L
	U	238	50.001	0.00				ug/L
>	Bi	209	457896.104	457896.10				ug/L

Sample ID: Standard 1
Report Date/Time: Tuesday, January 31, 2012 10:30:01
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Na	23	41014.894	-0.00		mg/L
Mg	24	533.404	0.00		mg/L
K	39	482980.613	-0.16		mg/L
Ca	43	183.354	0.00		mg/L
Fe	54	38167.217	0.01		mg/L
Fe	57	8281.614	0.00		mg/L
Sc-1	45	192464.904	192464.90		mg/L
Cl	35	27607.002	-1197.37		mg/L
Kr	83	51.001	-3.67		mg/L
Br	81	7837.020	661.93		mg/L
P	31	9237.135	640.69		mg/L
S	34	177610.672	-1889.41		mg/L
Sr	88	76.675	20.00		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72					
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115					
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159					
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209					

Sample ID: Standard 1
Report Date/Time: Tuesday, January 31, 2012 10:30:01
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 1
Report Date/Time: Tuesday, January 31, 2012 10:30:01
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Tuesday, January 31, 2012 10:35:35
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 2
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14579.415	0.00				ug/L
	Be	9	148.668	0.00				ug/L
	Al	27	4784.712	0.01				ug/L
>	Sc	45	203727.114	203727.11				ug/L
	Ti	49	480.062	0.00				ug/L
	V	51	6171.320	0.01				ug/L
	Cr	52	10716.327	0.01				ug/L
	Cr	53	880.135	0.00				ug/L
	Mn	55	5452.838	0.01				ug/L
	Co	59	4219.777	0.01				ug/L
	Ni	60	844.385	0.00				ug/L
	Cu	65	977.401	0.00				ug/L
	Zn	66	607.028	0.00				ug/L
>	Ge	72	474249.422	474249.42				ug/L
	As	75	332.822	0.00				ug/L
	Se	77	110.667	0.00				ug/L
	Se	82	57.914	0.00				ug/L
	Rb	85	49.334	0.00				mg/L
	Y	89	317932.868	38006.51				ug/L
	Rh	103	9.667	0.33				ug/L
	Mo	98	2527.902	0.01				ug/L
	Ag	107	2708.468	0.01				ug/L
	Cd	114	598.422	0.00				ug/L
>	In	115	456550.875	456550.88				ug/L
	Sn	118	2413.016	0.00				ug/L
	Sb	123	1862.178	0.00				ug/L
	Ba	135	724.372	0.00				ug/L
	Ce	140	43.338	-0.00				ug/L
>	Tb	159	591118.602	591118.60				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	3029.915	0.01				ug/L
	Tl	205	7660.962	0.02				ug/L
	Pb	206	2757.151	0.01				ug/L
	Pb	207	2523.074	0.00				ug/L
	Pb	208	11422.884	0.02				ug/L
	U	238	16696.881	0.03				ug/L
>	Bi	209	487730.712	487730.71				ug/L

Sample ID: Standard 2
Report Date/Time: Tuesday, January 31, 2012 10:37:47
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Na	23	236236.667	0.94		mg/L
Mg	24	133385.874	0.65		mg/L
K	39	797736.170	1.25		mg/L
Ca	43	790.117	0.00		mg/L
Fe	54	64525.215	0.13		mg/L
Fe	57	18699.493	0.05		mg/L
Sc-1	45	203727.114	203727.11		mg/L
Cl	35	30618.146	1813.77		mg/L
Kr	83	48.334	-6.33		mg/L
Br	81	7898.412	723.32		mg/L
P	31	10463.943	1867.50		mg/L
S	34	202765.748	23265.67		mg/L
Sr	88	163.351	106.68		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72					
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115					
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159					
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209					

Sample ID: Standard 2
Report Date/Time: Tuesday, January 31, 2012 10:37:47
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 2
Report Date/Time: Tuesday, January 31, 2012 10:37:47
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: Standard 3

Sample Date/Time: Tuesday, January 31, 2012 10:43:21
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 3
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14779.770	0.00				ug/L
	Be	9	16315.296	0.08	50.0000	0.999	1.999	ug/L
	Al	27	250650.582	1.24	50.0000	0.741	1.483	ug/L
>	Sc	45	199510.909	199510.91				ug/L
	Ti	49	48918.131	0.10	100.0000	5.495	5.495	ug/L
	V	51	441177.000	0.93	50.0000	1.400	2.801	ug/L
	Cr	52	398099.545	0.83	50.0000	2.543	5.087	ug/L
	Cr	53	47305.366	0.10	50.0000	1.178	2.356	ug/L
	Mn	55	604669.126	1.29	50.0000	2.204	4.409	ug/L
	Co	59	459928.990	0.98	50.0000	2.006	4.011	ug/L
	Ni	60	95914.522	0.20	50.0000	1.127	2.255	ug/L
	Cu	65	91609.091	0.19	50.0000	0.661	1.323	ug/L
	Zn	66	54615.022	0.12	50.0000	0.368	0.737	ug/L
>	Ge	72	470097.028	470097.03				ug/L
	As	75	59122.320	0.13	50.0000	1.208	2.416	ug/L
	Se	77	4466.531	0.01	50.0000	3.224	6.449	ug/L
	Se	82	5530.881	0.01	50.0000	1.252	2.504	ug/L
	Rb	85	2178.973	0.00				mg/L
	Y	89	307417.095	27490.74				ug/L
	Rh	103	28.667	19.33				ug/L
	Mo	98	290615.918	0.67	100.0000	5.260	5.260	ug/L
	Ag	107	294404.421	0.68	50.0000	1.177	2.354	ug/L
	Cd	114	69777.701	0.16	50.0000	1.746	3.492	ug/L
>	In	115	436005.552	436005.55				ug/L
	Sn	118	236480.910	0.54	50.0000	0.619	1.237	ug/L
	Sb	123	216776.581	0.50	50.0000	0.950	1.900	ug/L
	Ba	135	80868.532	0.14	50.0000	1.571	3.141	ug/L
	Ce	140	100.011	0.00				ug/L
>	Tb	159	578466.601	578466.60				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	349467.418	0.76	50.0000	1.388	2.777	ug/L
	Tl	205	852054.517	1.86	50.0000	1.497	2.994	ug/L
	Pb	206	277541.937	0.60	50.0000	1.363	2.726	ug/L
	Pb	207	261161.671	0.57	50.0000	0.182	0.363	ug/L
	Pb	208	1175368.437	2.56	50.0000	0.182	0.364	ug/L
	U	238	1913028.565	4.17	50.0000	0.929	1.858	ug/L
>	Bi	209	458448.405	458448.40				ug/L

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Na	23	23384944.355	116.96	5.0000	0.183	3.654	mg/L
Mg	24	14477375.079	72.54	5.0000	0.134	2.682	mg/L
K	39	30369837.644	149.57	5.0000	0.047	0.941	mg/L
Ca	43	66175.322	0.33	5.0000	0.289	5.785	mg/L
Fe	54	2754644.467	13.62	5.0000	0.185	3.710	mg/L
Fe	57	1230233.315	6.12	5.0000	0.061	1.225	mg/L
Sc-1	45	199510.909	199510.91				mg/L
Cl	35	28826.446	22.07				mg/L
Kr	83	42.667	-12.00				mg/L
Br	81	7042.977	-132.11				mg/L
P	31	11145.527	2549.08				mg/L
S	34	202102.358	22602.28				mg/L
Sr	88	4871.925	4815.25				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72					
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115					
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159					
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209					

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: Standard 4

Sample Date/Time: Tuesday, January 31, 2012 10:51:09
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 4
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13778.067	-0.01				ug/L
	Be	9	34399.553	0.16	99.5926	3.082	3.094	ug/L
	Al	27	536287.282	2.51	100.5886	1.973	1.962	ug/L
>	Sc	45	212149.952	212149.95				ug/L
	Ti	49	106696.417	0.22	205.5249	10.353	5.037	ug/L
	V	51	935508.238	1.92	101.4920	4.238	4.175	ug/L
	Cr	52	813034.653	1.66	99.9332	4.162	4.165	ug/L
	Cr	53	96154.542	0.20	99.5076	4.022	4.042	ug/L
	Mn	55	1265579.241	2.61	100.6817	2.120	2.106	ug/L
	Co	59	959229.306	1.98	100.5147	1.356	1.350	ug/L
	Ni	60	197268.832	0.41	99.8032	0.957	0.958	ug/L
	Cu	65	191053.621	0.39	100.5410	3.159	3.142	ug/L
	Zn	66	114330.145	0.24	100.7585	0.346	0.343	ug/L
>	Ge	72	485357.862	485357.86				ug/L
	As	75	125260.388	0.26	101.1981	1.629	1.609	ug/L
	Se	77	9498.744	0.02	101.8758	2.701	2.651	ug/L
	Se	82	11819.089	0.02	101.7583	2.382	2.341	ug/L
	Rb	85	4508.266	0.01				mg/L
	Y	89	318754.403	38828.04				ug/L
	Rh	103	46.334	37.00				ug/L
	Mo	98	620888.894	1.39	204.2640	11.222	5.494	ug/L
	Ag	107	631406.347	1.41	102.3315	2.494	2.437	ug/L
	Cd	114	142938.936	0.32	100.0472	0.541	0.541	ug/L
>	In	115	446334.812	446334.81				ug/L
	Sn	118	496512.256	1.11	101.2993	1.152	1.138	ug/L
	Sb	123	462049.274	1.04	102.0166	3.202	3.139	ug/L
	Ba	135	172292.281	0.28	100.6519	2.181	2.167	ug/L
	Ce	140	196.689	0.00				ug/L
>	Tb	159	608666.164	608666.16				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	733679.139	1.53	100.1616	2.532	2.528	ug/L
	Tl	205	1805672.753	3.76	100.6324	2.508	2.492	ug/L
	Pb	206	580610.200	1.21	100.0254	3.779	3.778	ug/L
	Pb	207	541371.973	1.13	99.5551	1.802	1.811	ug/L
	Pb	208	2471094.017	5.15	100.2555	1.419	1.415	ug/L
	U	238	3796474.864	7.91	97.3483	0.591	0.607	ug/L
>	Bi	209	479818.583	479818.58				ug/L

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Na	23	50019868.027	235.60	10.0359	0.415	4.137	mg/L
Mg	24	30408307.381	143.34	9.9427	0.441	4.431	mg/L
K	39	65339984.457	305.32	10.1028	0.255	2.525	mg/L
Ca	43	139085.281	0.65	9.9474	0.246	2.469	mg/L
Fe	54	5634483.839	26.37	9.8413	0.282	2.870	mg/L
Fe	57	2339515.777	10.99	9.4591	0.236	2.495	mg/L
Sc-1	45	212149.952	212149.95				mg/L
Cl	35	31603.818	2799.44				mg/L
Kr	83	56.334	1.67				mg/L
Br	81	7879.061	703.97				mg/L
P	31	11616.105	3019.66				mg/L
S	34	221131.717	41631.64				mg/L
Sr	88	10347.465	10290.79				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72					
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115					
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159					
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209					

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 4
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Method 6020 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Tuesday, January 31, 2012 10:58:55
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 11
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14195.440	-0.00				ug/L
	Be	9	16523.039	0.08	47.7183	1.952	4.090	ug/L
	Al	27	253122.778	1.18	47.1047	2.337	4.962	ug/L
>	Sc	45	212716.538	212716.54				ug/L
	Ti	49	52013.812	0.11	105.1271	3.773	3.589	ug/L
	V	51	454724.548	0.98	51.6615	0.848	1.642	ug/L
	Cr	52	396332.218	0.84	50.6754	0.572	1.128	ug/L
	Cr	53	45730.196	0.10	49.4035	3.489	7.062	ug/L
	Mn	55	615835.447	1.33	51.4483	0.479	0.931	ug/L
	Co	59	462352.293	1.00	50.8804	0.463	0.909	ug/L
	Ni	60	96601.259	0.21	51.3267	0.698	1.360	ug/L
	Cu	65	92182.908	0.20	50.9022	1.433	2.815	ug/L
	Zn	66	55724.782	0.12	51.5172	1.432	2.779	ug/L
>	Ge	72	461953.826	461953.83				ug/L
	As	75	59153.995	0.13	50.2850	0.902	1.795	ug/L
	Se	77	4714.000	0.01	52.7036	0.984	1.867	ug/L
	Se	82	5709.217	0.01	51.5963	1.272	2.466	ug/L
	Rb	85	2158.301	0.00				mg/L
	Y	89	309474.008	29547.65				ug/L
	Rh	103	27.000	17.67				ug/L
	Mo	98	295243.790	0.68	99.4919	3.573	3.592	ug/L
	Ag	107	300753.605	0.69	49.9291	0.943	1.889	ug/L
	Cd	114	68225.195	0.16	48.9155	1.126	2.303	ug/L
>	In	115	435553.560	435553.56				ug/L
	Sn	118	238757.027	0.55	49.8666	0.987	1.979	ug/L
	Sb	123	215660.933	0.50	48.7703	0.193	0.396	ug/L
	Ba	135	82259.253	0.14	49.9031	0.565	1.133	ug/L
	Ce	140	143.349	0.00				ug/L
>	Tb	159	585680.093	585680.09				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	352193.801	0.76	49.8143	0.704	1.413	ug/L
	Tl	205	858393.929	1.85	49.5511	1.464	2.954	ug/L
	Pb	206	280893.683	0.61	50.0900	0.088	0.176	ug/L
	Pb	207	267745.668	0.58	51.0015	2.123	4.162	ug/L
	Pb	208	1187575.467	2.56	49.9085	1.351	2.708	ug/L
	U	238	1929507.763	4.17	51.2742	1.279	2.494	ug/L
>	Bi	209	462958.431	462958.43				ug/L

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Na	23	23097679.102	108.52	4.6226	0.256	5.542	mg/L
Mg	24	14508041.257	68.26	4.7316	0.147	3.114	mg/L
K	39	31690265.368	146.41	4.8440	0.166	3.417	mg/L
Ca	43	66397.029	0.31	4.7257	0.018	0.381	mg/L
Fe	54	2930626.504	13.61	5.0760	0.314	6.190	mg/L
Fe	57	1266092.572	5.92	5.0943	0.253	4.968	mg/L
Sc-1	45	212716.538	212716.54				mg/L
Cl	35	28099.968	-704.41				mg/L
Kr	83	57.667	3.00				mg/L
Br	81	7470.015	294.92				mg/L
P	31	10254.312	1657.87				mg/L
S	34	199164.179	19664.10				mg/L
Sr	88	4771.844	4715.17				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9	95.437				
Al	27	94.209				
Sc	45					
Ti	49	105.127				
V	51	103.323				
Cr	52	101.351				
Cr	53					
Mn	55	102.897				
Co	59	101.761				
Ni	60	102.653				
Cu	65	101.804				
Zn	66	103.034				
Ge	72		108.561			
As	75	100.570				
Se	77					
Se	82	103.193				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	99.858				
Cd	114	97.831				
In	115		111.558			
Sn	118					
Sb	123	97.541				
Ba	135	99.806				
Ce	140					
Tb	159		111.935			
Ho	165					
Tl	203	99.629				
Tl	205					
Pb	206					
Pb	207					
Pb	208	99.817				
U	238	102.548				
Bi	209		110.762			

Sample ID: QC Std 1
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⌈	Na	23	92.451
|	Mg	24	94.632
|	K	39	96.879
|	Ca	43	94.514
|	Fe	54	101.519
|	Fe	57	101.886
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 1
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Method 6020 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Tuesday, January 31, 2012 11:06:31
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14345.756	-0.00				ug/L
	Be	9	6.667	-0.00	-0.0288	0.012	42.617	ug/L
	Al	27	3150.603	-0.00	0.0641	0.069	107.064	ug/L
>	Sc	45	208340.202	208340.20				ug/L
	Ti	49	63.340	0.00	-0.0248	0.041	164.882	ug/L
	V	51	2230.809	-0.00	-0.0435	0.013	30.357	ug/L
	Cr	52	7434.056	-0.00	-0.0359	0.033	92.918	ug/L
	Cr	53	456.725	-0.00	-0.0591	0.100	168.519	ug/L
	Mn	55	327.676	0.00	-0.0180	0.001	8.172	ug/L
	Co	59	80.001	0.00	-0.0444	0.002	4.115	ug/L
	Ni	60	38.667	-0.00	-0.0177	0.005	25.905	ug/L
	Cu	65	183.671	0.00	-0.0302	0.005	16.649	ug/L
	Zn	66	88.335	-0.00	-0.0702	0.006	8.975	ug/L
>	Ge	72	484392.651	484392.65				ug/L
	As	75	-150.554	0.00	0.0030	0.014	473.987	ug/L
	Se	77	79.334	-0.00	0.0365	0.129	354.510	ug/L
	Se	82	1.209	-0.00	-0.1015	0.084	82.934	ug/L
	Rb	85	23.667	-0.00				mg/L
	Y	89	312206.090	32279.73				ug/L
	Rh	103	10.333	1.00				ug/L
	Mo	98	119.381	0.00	0.0258	0.004	15.741	ug/L
	Ag	107	140.003	0.00	-0.0071	0.001	17.449	ug/L
	Cd	114	13.290	0.00	-0.0002	0.008	3351.056	ug/L
>	In	115	454456.997	454457.00				ug/L
	Sn	118	497.615	0.00	0.0180	0.005	29.867	ug/L
	Sb	123	66.996	0.00	0.0126	0.003	20.630	ug/L
	Ba	135	56.334	0.00	-0.0023	0.005	211.335	ug/L
	Ce	140	50.005	-0.00				ug/L
>	Tb	159	599069.829	599069.83				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	63.668	0.00	0.0019	0.001	29.509	ug/L
	Tl	205	156.684	0.00	-0.0112	0.003	28.944	ug/L
	Pb	206	333.677	0.00	-0.0101	0.005	51.967	ug/L
	Pb	207	269.674	0.00	-0.0072	0.001	20.180	ug/L
	Pb	208	1287.385	0.00	-0.0040	0.002	46.239	ug/L
	U	238	184.671	0.00	-0.0166	0.001	8.719	ug/L
>	Bi	209	481755.900	481755.90				ug/L

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Na	23	43903.204	-0.00	-0.0004	0.000	109.312	mg/L
Mg	24	1190.208	0.00	-0.0050	0.000	2.228	mg/L
K	39	511919.204	-0.21	-0.0082	0.002	23.693	mg/L
Ca	43	166.685	-0.00	-0.0067	0.003	48.577	mg/L
Fe	54	40523.637	0.01	-0.0056	0.005	86.834	mg/L
Fe	57	9035.823	0.00	-0.0017	0.003	179.855	mg/L
Sc-1	45	208340.202	208340.20				mg/L
Cl	35	29346.249	541.87				mg/L
Kr	83	52.667	-2.00				mg/L
Br	81	8503.014	1327.92				mg/L
P	31	11501.948	2905.50				mg/L
S	34	201968.260	22468.18				mg/L
Sr	88	63.340	6.67				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		113.835			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		116.399			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		114.494			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		115.259			

Sample ID: QC Std 2
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 2
Report Date/Time: Tuesday, January 31, 2012 11:08:43
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Method 6020 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Tuesday, January 31, 2012 11:14:09
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 9
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13711.301	0.00				ug/L
	Be	9	10.667	0.00	-0.0138	0.015	110.991	ug/L
	Al	27	3067.235	0.00	0.0962	0.039	40.187	ug/L
>	Sc	45	192814.577	192814.58				ug/L
	Ti	49	46.671	-0.00	-0.0482	0.022	44.935	ug/L
	V	51	5481.457	0.01	0.3666	0.013	3.595	ug/L
	Cr	52	12734.185	0.01	0.7715	0.063	8.221	ug/L
	Cr	53	1200.207	0.00	0.8322	0.191	23.010	ug/L
	Mn	55	6598.015	0.01	0.5321	0.042	7.961	ug/L
	Co	59	3855.932	0.01	0.3907	0.033	8.336	ug/L
	Ni	60	3181.639	0.01	1.7282	0.054	3.150	ug/L
	Cu	65	1605.838	0.00	0.8011	0.066	8.218	ug/L
	Zn	66	7036.374	0.02	6.6622	0.251	3.774	ug/L
>	Ge	72	442856.240	442856.24				ug/L
	As	75	328.066	0.00	0.4148	0.013	3.044	ug/L
	Se	77	101.334	0.00	0.3753	0.006	1.479	ug/L
	Se	82	38.572	0.00	0.2516	0.103	40.747	ug/L
	Rb	85	28.667	-0.00				mg/L
	Y	89	289844.944	9918.59				ug/L
	Rh	103	8.000	-1.33				ug/L
	Mo	98	72.974	0.00	0.0137	0.003	21.923	ug/L
	Ag	107	2564.420	0.01	0.4286	0.010	2.314	ug/L
	Cd	114	286.181	0.00	0.2114	0.014	6.689	ug/L
>	In	115	405068.989	405068.99				ug/L
	Sn	118	342.807	0.00	-0.0046	0.004	90.684	ug/L
	Sb	123	1743.652	0.00	0.4222	0.009	2.167	ug/L
	Ba	135	1241.438	0.00	0.7699	0.018	2.323	ug/L
	Ce	140	30.003	-0.00				ug/L
>	Tb	159	547835.586	547835.59				ug/L
	Ho	165	6.667	-0.00				ug/L
	Tl	203	648.365	0.00	0.0904	0.004	4.478	ug/L
	Tl	205	1366.916	0.00	0.0638	0.004	5.813	ug/L
	Pb	206	2462.722	0.01	0.3988	0.022	5.530	ug/L
	Pb	207	2259.662	0.00	0.3999	0.009	2.201	ug/L
	Pb	208	10319.320	0.02	0.4039	0.006	1.553	ug/L
	U	238	14956.561	0.03	0.3999	0.003	0.827	ug/L
>	Bi	209	436994.160	436994.16				ug/L

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Na	23	34963.394	-0.03	-0.0017	0.001	34.541	mg/L
Mg	24	1463.633	0.01	-0.0049	0.000	5.470	mg/L
K	39	488649.416	-0.12	-0.0053	0.008	153.496	mg/L
Ca	43	160.018	-0.00	-0.0063	0.003	49.748	mg/L
Fe	54	36298.174	0.00	-0.0079	0.002	21.646	mg/L
Fe	57	7874.509	0.00	-0.0037	0.003	80.008	mg/L
Sc-1	45	192814.577	192814.58				mg/L
Cl	35	26100.812	-2703.56				mg/L
Kr	83	49.334	-5.33				mg/L
Br	81	6847.493	-327.60				mg/L
P	31	8676.567	80.12				mg/L
S	34	171947.985	-7552.09				mg/L
Sr	88	83.342	26.67				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	91.642				
Cr	52	96.443				
Cr	53					
Mn	55	106.413				
Co	59	97.686				
Ni	60	108.013				
Cu	65	100.135				
Zn	66	106.596				
Ge	72		104.073			
As	75	103.712				
Se	77					
Se	82	62.899				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	107.157				
Cd	114	105.721				
In	115		103.750			
Sn	118					
Sb	123	105.556				
Ba	135	102.653				
Ce	140					
Tb	159		104.702			
Ho	165					
Tl	203	113.001				
Tl	205					
Pb	206					
Pb	207					
Pb	208	100.966				
U	238	99.970				
Bi	209		104.550			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Se	82	LLICV IS OUT OF LIMITS (+/-20%)

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Method 6020 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Tuesday, January 31, 2012 11:22:04
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 9
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14328.982	0.00				ug/L
	Be	9	8.000	-0.00	-0.0241	0.001	2.521	ug/L
	Al	27	3233.970	0.00	0.1026	0.079	77.373	ug/L
>	Sc	45	200944.800	200944.80				ug/L
	Ti	49	73.341	0.00	0.0054	0.044	826.825	ug/L
	V	51	5652.046	0.01	0.3712	0.023	6.170	ug/L
	Cr	52	13136.147	0.01	0.7848	0.012	1.531	ug/L
	Cr	53	1133.524	0.00	0.7261	0.079	10.825	ug/L
	Mn	55	6519.281	0.01	0.5117	0.009	1.801	ug/L
	Co	59	3908.289	0.01	0.3863	0.009	2.352	ug/L
	Ni	60	3259.337	0.01	1.7299	0.060	3.478	ug/L
	Cu	65	1656.181	0.00	0.8082	0.039	4.839	ug/L
	Zn	66	7087.419	0.02	6.5514	0.085	1.290	ug/L
>	Ge	72	453155.071	453155.07				ug/L
	As	75	325.020	0.00	0.4053	0.033	8.216	ug/L
	Se	77	100.001	0.00	0.3342	0.110	32.784	ug/L
	Se	82	54.929	0.00	0.3987	0.184	46.133	ug/L
	Rb	85	29.000	-0.00				mg/L
	Y	89	303655.214	23728.86				ug/L
	Rh	103	9.000	-0.33				ug/L
	Mo	98	55.526	0.00	0.0067	0.004	59.605	ug/L
	Ag	107	2606.434	0.01	0.4191	0.040	9.649	ug/L
	Cd	114	288.818	0.00	0.2054	0.024	11.755	ug/L
>	In	115	421831.330	421831.33				ug/L
	Sn	118	328.940	0.00	-0.0105	0.004	37.076	ug/L
	Sb	123	1730.192	0.00	0.4027	0.016	4.054	ug/L
	Ba	135	1231.770	0.00	0.7350	0.015	2.028	ug/L
	Ce	140	43.338	-0.00				ug/L
>	Tb	159	568102.343	568102.34				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	599.694	0.00	0.0795	0.001	1.139	ug/L
	Tl	205	1553.634	0.00	0.0715	0.002	3.182	ug/L
	Pb	206	2566.421	0.01	0.3991	0.011	2.699	ug/L
	Pb	207	2376.696	0.00	0.4045	0.019	4.686	ug/L
	Pb	208	10747.198	0.02	0.4039	0.011	2.801	ug/L
	U	238	15663.198	0.03	0.4023	0.001	0.167	ug/L
>	Bi	209	454983.983	454983.98				ug/L

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Na	23	34371.068	-0.04	-0.0021	0.000	17.004	mg/L
Mg	24	753.447	0.00	-0.0052	0.000	2.016	mg/L
K	39	502199.350	-0.17	-0.0069	0.002	26.649	mg/L
Ca	43	146.683	-0.00	-0.0078	0.001	7.705	mg/L
Fe	54	37776.925	-0.00	-0.0080	0.005	60.959	mg/L
Fe	57	7697.657	-0.00	-0.0061	0.001	17.749	mg/L
Sc-1	45	200944.800	200944.80				mg/L
Cl	35	27762.171	-1042.20				mg/L
Kr	83	46.667	-8.00				mg/L
Br	81	7023.630	-151.46				mg/L
P	31	9081.631	485.19				mg/L
S	34	182320.680	2820.60				mg/L
Sr	88	80.008	23.34				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	92.806				
Cr	52	98.094				
Cr	53					
Mn	55	102.350				
Co	59	96.569				
Ni	60	108.118				
Cu	65	101.026				
Zn	66	104.822				
Ge	72		106.494			
As	75	101.313				
Se	77					
Se	82	99.673				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	104.783				
Cd	114	102.718				
In	115		108.043			
Sn	118					
Sb	123	100.687				
Ba	135	97.996				
Ce	140					
Tb	159		108.576			
Ho	165					
Tl	203	99.396				
Tl	205					
Pb	206					
Pb	207					
Pb	208	100.980				
U	238	100.578				
Bi	209		108.854			

Sample ID: QC Std 3
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 3
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Method 6020 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Tuesday, January 31, 2012 11:29:43
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 6
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13794.843	-0.00				ug/L
	Be	9	7.333	-0.00	-0.0254	0.016	64.371	ug/L
	Al	27	23360985.699	117.57	4702.9792	387.882	8.248	ug/L
>	Sc	45	199189.144	199189.14				ug/L
	Ti	49	56634.240	0.13	117.3969	6.591	5.614	ug/L
	V	51	1705.602	-0.00	-0.0867	0.024	27.626	ug/L
	Cr	52	7826.756	0.00	0.0846	0.021	24.515	ug/L
	Cr	53	1473.612	0.00	1.1133	0.132	11.868	ug/L
	Mn	55	1846.556	0.00	0.1142	0.005	4.701	ug/L
	Co	59	286.008	0.00	-0.0205	0.001	6.551	ug/L
	Ni	60	877.055	0.00	0.4408	0.032	7.264	ug/L
	Cu	65	483.686	0.00	0.1472	0.010	6.893	ug/L
	Zn	66	580.693	0.00	0.4039	0.029	7.239	ug/L
>	Ge	72	450853.187	450853.19				ug/L
	As	75	-184.855	-0.00	-0.0360	0.052	144.276	ug/L
	Se	77	152.001	0.00	0.9448	0.232	24.546	ug/L
	Se	82	-0.487	-0.00	-0.1154	0.049	42.181	ug/L
	Rb	85	2434.380	0.01				mg/L
	Y	89	301550.636	21624.28				ug/L
	Rh	103	18.000	8.67				ug/L
	Mo	98	320836.922	0.76	111.4578	1.552	1.392	ug/L
	Ag	107	135.336	0.00	-0.0062	0.002	34.735	ug/L
	Cd	114	134.719	0.00	0.0903	0.023	25.548	ug/L
>	In	115	422328.818	422328.82				ug/L
	Sn	118	545.485	0.00	0.0360	0.004	12.454	ug/L
	Sb	123	223.954	0.00	0.0503	0.002	4.958	ug/L
	Ba	135	79.001	0.00	0.0135	0.001	10.534	ug/L
	Ce	140	846.794	0.00				ug/L
>	Tb	159	570793.776	570793.78				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	52.334	0.00	0.0007	0.000	64.660	ug/L
	Tl	205	136.682	0.00	-0.0119	0.004	32.640	ug/L
	Pb	206	349.344	0.00	-0.0042	0.006	141.874	ug/L
	Pb	207	333.343	0.00	0.0076	0.002	27.642	ug/L
	Pb	208	1447.730	0.00	0.0055	0.002	33.619	ug/L
	U	238	83.335	0.00	-0.0191	0.000	2.569	ug/L
>	Bi	209	458484.888	458484.89				ug/L

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Na	23	61796190.603	310.46	13.2252	0.606	4.583	mg/L
Mg	24	15501066.953	78.00	5.4078	0.404	7.477	mg/L
K	39	33597173.184	166.33	5.5030	0.373	6.779	mg/L
Ca	43	213734.856	1.07	16.3221	1.222	7.488	mg/L
Fe	54	7485677.198	37.44	13.9771	0.558	3.991	mg/L
Fe	57	2975812.983	14.93	12.8526	0.763	5.939	mg/L
Sc-1	45	199189.144	199189.14				mg/L
Cl	35	1898963.746	1870159.37				mg/L
Kr	83	56.001	1.33				mg/L
Br	81	7093.685	-81.41				mg/L
P	31	1698724.222	1690127.78				mg/L
S	34	350351.604	170851.53				mg/L
Sr	88	676.762	620.09				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		105.953			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		108.170			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		109.090			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		109.692			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 4
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Method 6020 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Tuesday, January 31, 2012 11:37:22
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 7
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14078.642	0.01				ug/L
	Be	9	34970.580	0.19	118.0164	3.386	2.869	ug/L
	Al	27	22427454.081	123.26	4930.7649	262.136	5.316	ug/L
>	Sc	45	182155.524	182155.52				ug/L
	Ti	49	54889.287	0.13	119.9275	7.354	6.132	ug/L
	V	51	864524.293	2.02	106.4323	3.764	3.537	ug/L
	Cr	52	774177.343	1.80	108.0255	0.275	0.255	ug/L
	Cr	53	142673.532	0.33	167.9145	9.258	5.513	ug/L
	Mn	55	1219411.682	2.85	110.1302	2.612	2.371	ug/L
	Co	59	929300.689	2.17	110.5595	1.533	1.387	ug/L
	Ni	60	192979.876	0.45	110.8293	1.370	1.236	ug/L
	Cu	65	186428.955	0.44	111.4024	0.314	0.282	ug/L
	Zn	66	109738.360	0.26	109.8152	2.436	2.218	ug/L
>	Ge	72	427569.564	427569.56				ug/L
	As	75	118285.996	0.28	108.4757	1.400	1.290	ug/L
	Se	77	11987.957	0.03	146.2171	3.617	2.473	ug/L
	Se	82	11236.869	0.03	109.8183	0.295	0.268	ug/L
	Rb	85	2176.639	0.01				mg/L
	Y	89	280794.688	868.33				ug/L
	Rh	103	84.001	74.67				ug/L
	Mo	98	304433.856	0.81	119.2076	3.591	3.013	ug/L
	Ag	107	604754.688	1.61	116.7173	2.592	2.220	ug/L
	Cd	114	135177.184	0.36	112.6927	3.318	2.945	ug/L
>	In	115	374778.855	374778.86				ug/L
	Sn	118	1541.609	0.00	0.2932	0.010	3.486	ug/L
	Sb	123	438180.015	1.17	115.2019	3.322	2.884	ug/L
	Ba	135	162281.560	0.30	107.7801	1.330	1.234	ug/L
	Ce	140	803.453	0.00				ug/L
>	Tb	159	535222.981	535222.98				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	745341.092	1.70	111.1351	2.187	1.968	ug/L
	Tl	205	1840769.148	4.19	112.0622	3.648	3.255	ug/L
	Pb	206	625980.274	1.42	117.7564	0.879	0.746	ug/L
	Pb	207	549592.634	1.25	110.4047	2.600	2.355	ug/L
	Pb	208	2568649.169	5.85	113.8394	0.859	0.755	ug/L
	U	238	3876885.879	8.83	108.6041	2.960	2.725	ug/L
>	Bi	209	439197.629	439197.63				ug/L

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Na	23	55793123.214	306.46	13.0544	0.510	3.905	mg/L
Mg	24	13909218.006	76.43	5.2992	0.190	3.578	mg/L
K	39	30157958.998	163.04	5.3941	0.153	2.842	mg/L
Ca	43	194203.410	1.07	16.2013	0.435	2.688	mg/L
Fe	54	6906458.151	37.78	14.1038	0.606	4.298	mg/L
Fe	57	2836175.632	15.55	13.3936	0.669	4.991	mg/L
Sc-1	45	182155.524	182155.52				mg/L
Cl	35	68135716.571	68106912.19				mg/L
Kr	83	65.668	11.00				mg/L
Br	81	12694.996	5519.91				mg/L
P	31	1468655.572	1460059.13				mg/L
S	34	304978.304	125478.23				mg/L
Sr	88	793.451	736.78				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	106.432				
Cr	52	108.025				
Cr	53					
Mn	55	110.130				
Co	59	110.560				
Ni	60	110.829				
Cu	65	111.402				
Zn	66	109.815				
Ge	72		100.481			
As	75	108.476				
Se	77					
Se	82	109.818				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	116.717				
Cd	114	112.693				
In	115		95.991			
Sn	118					
Sb	123	115.202				
Ba	135	107.780				
Ce	140					
Tb	159		102.292			
Ho	165					
Tl	203	111.135				
Tl	205					
Pb	206					
Pb	207					
Pb	208	113.839				
U	238	108.604				
Bi	209		105.077			

Sample ID: QC Std 5
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 5
Report Date/Time: Tuesday, January 31, 2012 11:39:36
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, January 31, 2012 11:45:00
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 5
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13410.792	-0.01				ug/L
	Be	9	16222.461	0.08	47.8341	1.708	3.571	ug/L
	Al	27	254615.269	1.21	48.3953	0.650	1.343	ug/L
>	Sc	45	208133.902	208133.90				ug/L
	Ti	49	52530.431	0.11	100.2007	5.346	5.336	ug/L
	V	51	456640.381	0.93	48.9513	2.978	6.084	ug/L
	Cr	52	403812.699	0.81	48.6987	2.276	4.675	ug/L
	Cr	53	56003.214	0.11	57.2037	2.439	4.264	ug/L
	Mn	55	618586.072	1.26	48.7681	2.090	4.286	ug/L
	Co	59	481842.310	0.98	50.0342	1.394	2.786	ug/L
	Ni	60	98506.199	0.20	49.3938	1.515	3.067	ug/L
	Cu	65	95267.835	0.19	49.6398	0.843	1.698	ug/L
	Zn	66	56719.046	0.12	49.4917	2.180	4.405	ug/L
>	Ge	72	489703.792	489703.79				ug/L
	As	75	60885.183	0.12	48.8147	0.433	0.886	ug/L
	Se	77	4804.719	0.01	50.6717	2.826	5.578	ug/L
	Se	82	5805.661	0.01	49.4852	0.691	1.397	ug/L
	Rb	85	2194.311	0.00				mg/L
	Y	89	315797.670	35871.31				ug/L
	Rh	103	34.334	25.00				ug/L
	Mo	98	298570.048	0.68	99.9756	1.660	1.660	ug/L
	Ag	107	308717.289	0.70	50.9264	0.354	0.695	ug/L
	Cd	114	69570.606	0.16	49.5898	0.374	0.753	ug/L
>	In	115	438253.721	438253.72				ug/L
	Sn	118	241500.983	0.55	50.1396	1.091	2.176	ug/L
	Sb	123	219644.779	0.50	49.3750	0.410	0.831	ug/L
	Ba	135	82980.741	0.14	48.6455	0.373	0.766	ug/L
	Ce	140	106.678	0.00				ug/L
>	Tb	159	606046.499	606046.50				ug/L
	Ho	165	3.334	-0.00				ug/L
	Tl	203	367357.932	0.80	52.3178	1.060	2.026	ug/L
	Tl	205	909764.238	1.98	52.8928	1.228	2.322	ug/L
	Pb	206	286996.389	0.62	51.5341	1.422	2.758	ug/L
	Pb	207	273529.042	0.59	52.4446	0.497	0.948	ug/L
	Pb	208	1222716.052	2.66	51.7200	0.442	0.854	ug/L
	U	238	1946361.534	4.23	52.0852	1.858	3.567	ug/L
>	Bi	209	459859.369	459859.37				ug/L

Sample ID: QC Std 6
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Na	23	24197050.988	116.02	4.9421	0.204	4.131	mg/L
Mg	24	14612629.578	70.20	4.8667	0.056	1.160	mg/L
K	39	32210639.323	152.09	5.0317	0.303	6.025	mg/L
Ca	43	67654.156	0.32	4.9224	0.279	5.670	mg/L
Fe	54	2847664.309	13.49	5.0324	0.259	5.151	mg/L
Fe	57	1285397.849	6.14	5.2808	0.086	1.625	mg/L
Sc-1	45	208133.902	208133.90				mg/L
Cl	35	113030.852	84226.48				mg/L
Kr	83	52.334	-2.33				mg/L
Br	81	7657.519	482.43				mg/L
P	31	8924.779	328.33				mg/L
S	34	202053.720	22553.64				mg/L
Sr	88	4861.906	4805.23				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	97.903				
Cr	52	97.397				
Cr	53					
Mn	55	97.536				
Co	59	100.068				
Ni	60	98.788				
Cu	65	99.280				
Zn	66	98.983				
Ge	72		115.083			
As	75	97.629				
Se	77					
Se	82	98.970				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	101.853				
Cd	114	99.180				
In	115		112.249			
Sn	118					
Sb	123	98.750				
Ba	135	97.291				
Ce	140					
Tb	159		115.828			
Ho	165					
Tl	203	104.636				
Tl	205					
Pb	206					
Pb	207					
Pb	208	103.440				
U	238	104.170				
Bi	209		110.021			

Sample ID: QC Std 6
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Tuesday, January 31, 2012 11:47:13
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, January 31, 2012 11:52:37
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12793.198	-0.00				ug/L
	Be	9	6.667	-0.00	-0.0272	0.010	38.117	ug/L
	Al	27	4534.590	0.01	0.3935	0.148	37.668	ug/L
>	Sc	45	194189.285	194189.28				ug/L
	Ti	49	66.674	0.00	0.0013	0.067	5289.871	ug/L
	V	51	1672.018	-0.00	-0.0777	0.037	47.082	ug/L
	Cr	52	6649.053	0.00	-0.0108	0.024	223.360	ug/L
	Cr	53	4945.304	0.01	5.3842	0.576	10.704	ug/L
	Mn	55	315.676	0.00	-0.0151	0.001	4.295	ug/L
	Co	59	77.334	0.00	-0.0434	0.001	2.359	ug/L
	Ni	60	45.667	0.00	-0.0106	0.004	38.832	ug/L
	Cu	65	182.337	0.00	-0.0165	0.010	62.794	ug/L
	Zn	66	91.668	-0.00	-0.0551	0.001	2.519	ug/L
>	Ge	72	421548.418	421548.42				ug/L
	As	75	-124.539	0.00	0.0085	0.047	554.316	ug/L
	Se	77	109.334	0.00	0.5371	0.204	38.042	ug/L
	Se	82	0.528	-0.00	-0.1077	0.118	109.285	ug/L
	Rb	85	24.334	-0.00				mg/L
	Y	89	277103.469	-2822.89				ug/L
	Rh	103	14.667	5.33				ug/L
	Mo	98	99.125	0.00	0.0246	0.005	19.419	ug/L
	Ag	107	112.669	0.00	-0.0085	0.002	28.369	ug/L
	Cd	114	6.943	0.00	-0.0039	0.004	114.049	ug/L
>	In	115	390106.191	390106.19				ug/L
	Sn	118	358.408	0.00	0.0019	0.003	183.298	ug/L
	Sb	123	49.952	0.00	0.0107	0.001	10.350	ug/L
	Ba	135	49.001	0.00	-0.0027	0.006	220.384	ug/L
	Ce	140	16.668	-0.00				ug/L
>	Tb	159	527406.722	527406.72				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	353.678	0.00	0.0466	0.004	8.001	ug/L
	Tl	205	766.779	0.00	0.0274	0.001	5.469	ug/L
	Pb	206	287.341	0.00	-0.0126	0.004	28.933	ug/L
	Pb	207	239.339	0.00	-0.0079	0.000	3.872	ug/L
	Pb	208	1118.707	0.00	-0.0059	0.002	33.562	ug/L
	U	238	186.337	0.00	-0.0160	0.001	6.744	ug/L
>	Bi	209	434104.769	434104.77				ug/L

Sample ID: QC Std 7
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Na	23	41691.577	-0.00	-0.0002	0.000	172.800	mg/L
Mg	24	1216.878	0.00	-0.0050	0.000	1.074	mg/L
K	39	490112.258	-0.14	-0.0060	0.003	53.604	mg/L
Ca	43	160.018	-0.00	-0.0063	0.002	27.074	mg/L
Fe	54	34795.771	-0.01	-0.0113	0.004	32.760	mg/L
Fe	57	7821.117	-0.00	-0.0043	0.002	35.325	mg/L
Sc-1	45	194189.285	194189.28				mg/L
Cl	35	54968.834	26164.46				mg/L
Kr	83	54.334	-0.33				mg/L
Br	81	6693.357	-481.73				mg/L
P	31	9099.044	502.60				mg/L
S	34	176457.520	-3042.56				mg/L
Sr	88	30.003	-26.67				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		99.066			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		99.917			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		100.798			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		103.859			

Sample ID: QC Std 7
Report Date/Time: Tuesday, January 31, 2012 11:54:49
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Tl	203	CCB IS OUT OF LIMITS (+/-1/2RL)

Sample ID: QC Std 7
Report Date/Time: Tuesday, January 31, 2012 11:54:49
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, January 31, 2012 12:05:13
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12242.332	-0.01				ug/L
	Be	9	6.667	-0.00	-0.0276	0.007	26.517	ug/L
	Al	27	3167.274	0.00	0.1055	0.061	58.108	ug/L
>	Sc	45	196064.618	196064.62				ug/L
	Ti	49	140.015	0.00	0.1418	0.015	10.591	ug/L
	V	51	1723.656	-0.00	-0.0862	0.036	42.032	ug/L
	Cr	52	6646.716	-0.00	-0.0790	0.005	6.844	ug/L
	Cr	53	3090.885	0.01	2.8963	0.237	8.198	ug/L
	Mn	55	286.008	-0.00	-0.0197	0.001	6.263	ug/L
	Co	59	83.668	0.00	-0.0434	0.001	1.854	ug/L
	Ni	60	40.334	0.00	-0.0155	0.002	13.720	ug/L
	Cu	65	178.670	0.00	-0.0266	0.005	18.972	ug/L
	Zn	66	91.001	-0.00	-0.0623	0.004	7.187	ug/L
>	Ge	72	454041.710	454041.71				ug/L
	As	75	-116.517	0.00	0.0236	0.081	344.573	ug/L
	Se	77	108.667	0.00	0.4280	0.273	63.759	ug/L
	Se	82	5.559	0.00	-0.0605	0.067	110.871	ug/L
	Rb	85	24.667	-0.00				mg/L
	Y	89	302112.736	22186.38				ug/L
	Rh	103	10.667	1.33				ug/L
	Mo	98	46.530	0.00	0.0034	0.004	112.132	ug/L
	Ag	107	96.668	0.00	-0.0129	0.001	6.221	ug/L
	Cd	114	12.826	0.00	0.0000	0.004	9848.044	ug/L
>	In	115	422558.572	422558.57				ug/L
	Sn	118	309.339	0.00	-0.0150	0.002	15.526	ug/L
	Sb	123	37.453	0.00	0.0068	0.002	26.453	ug/L
	Ba	135	41.001	-0.00	-0.0097	0.003	35.694	ug/L
	Ce	140	26.669	-0.00				ug/L
>	Tb	159	560360.143	560360.14				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	237.339	0.00	0.0285	0.002	8.695	ug/L
	Tl	205	623.419	0.00	0.0180	0.006	35.620	ug/L
	Pb	206	272.341	0.00	-0.0162	0.005	30.306	ug/L
	Pb	207	254.340	0.00	-0.0056	0.002	42.653	ug/L
	Pb	208	1088.372	0.00	-0.0079	0.003	37.919	ug/L
	U	238	146.669	0.00	-0.0172	0.001	6.864	ug/L
>	Bi	209	440629.040	440629.04				ug/L

Sample ID: QC Std 7
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Na	23	37055.970	-0.03	-0.0013	0.001	38.270	mg/L
Mg	24	1223.554	0.00	-0.0050	0.000	3.232	mg/L
K	39	500603.155	-0.11	-0.0050	0.003	52.225	mg/L
Ca	43	170.019	0.00	-0.0057	0.005	80.662	mg/L
Fe	54	35123.909	-0.01	-0.0114	0.003	23.625	mg/L
Fe	57	7854.487	-0.00	-0.0045	0.001	31.188	mg/L
Sc-1	45	196064.618	196064.62				mg/L
Cl	35	38307.194	9502.82				mg/L
Kr	83	50.667	-4.00				mg/L
Br	81	7121.048	-54.04				mg/L
P	31	8270.137	-326.31				mg/L
S	34	177174.558	-2325.52				mg/L
Sr	88	63.340	6.67				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		106.702			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		108.229			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		107.096			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		105.420			

Sample ID: QC Std 7
Report Date/Time: Tuesday, January 31, 2012 12:07:25
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Tuesday, January 31, 2012 12:07:25
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: PBW 78 WG388212-02

Sample Date/Time: Tuesday, January 31, 2012 12:12:48
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 35
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13978.413	0.01				ug/L
	Be	9	11.333	0.00	-0.0107	0.021	193.842	ug/L
	Al	27	2883.834	0.00	0.0842	0.061	71.844	ug/L
>	Sc	45	185032.426	185032.43				ug/L
	Ti	49	70.007	0.00	0.0063	0.064	1024.230	ug/L
	V	51	1913.048	-0.00	-0.0507	0.011	22.103	ug/L
	Cr	52	6468.574	-0.00	-0.0498	0.009	17.894	ug/L
	Cr	53	2343.899	0.00	2.2308	0.258	11.543	ug/L
	Mn	55	286.674	0.00	-0.0182	0.001	3.823	ug/L
	Co	59	59.001	0.00	-0.0457	0.000	0.775	ug/L
	Ni	60	119.002	0.00	0.0310	0.006	18.605	ug/L
	Cu	65	130.669	-0.00	-0.0491	0.009	17.754	ug/L
	Zn	66	233.006	0.00	0.0851	0.017	20.208	ug/L
>	Ge	72	427693.879	427693.88				ug/L
	As	75	-98.917	0.00	0.0341	0.062	183.114	ug/L
	Se	77	84.000	0.00	0.2053	0.086	41.998	ug/L
	Se	82	3.545	-0.00	-0.0770	0.087	112.717	ug/L
	Rb	85	34.000	0.00				mg/L
	Y	89	292318.432	12392.07				ug/L
	Rh	103	8.333	-1.00				ug/L
	Mo	98	30.343	0.00	-0.0017	0.001	42.073	ug/L
	Ag	107	67.668	-0.00	-0.0173	0.001	7.771	ug/L
	Cd	114	-0.268	-0.00	-0.0096	0.002	22.123	ug/L
>	In	115	403869.216	403869.22				ug/L
	Sn	118	280.671	-0.00	-0.0184	0.003	13.939	ug/L
	Sb	123	100.538	0.00	0.0226	0.001	6.120	ug/L
	Ba	135	42.667	0.00	-0.0076	0.003	34.936	ug/L
	Ce	140	40.004	-0.00				ug/L
>	Tb	159	540806.581	540806.58				ug/L
	Ho	165	0.000	-0.00				ug/L
	Tl	203	135.669	0.00	0.0140	0.002	14.303	ug/L
	Tl	205	330.040	0.00	0.0008	0.002	219.369	ug/L
	Pb	206	250.673	0.00	-0.0187	0.001	3.571	ug/L
	Pb	207	223.005	0.00	-0.0105	0.004	40.308	ug/L
	Pb	208	1009.367	0.00	-0.0100	0.002	21.452	ug/L
	U	238	67.001	0.00	-0.0194	0.000	0.874	ug/L
>	Bi	209	426493.424	426493.42				ug/L

Sample ID: PBW 78 WG388212-02
Report Date/Time: Tuesday, January 31, 2012 12:15:00
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Na	23	32245.538	-0.04	-0.0020	0.000	4.443	mg/L
Mg	24	536.738	0.00	-0.0052	0.000	0.362	mg/L
K	39	470959.326	-0.12	-0.0053	0.002	33.206	mg/L
Ca	43	163.351	0.00	-0.0055	0.001	26.095	mg/L
Fe	54	34325.601	-0.00	-0.0091	0.002	21.529	mg/L
Fe	57	6776.769	-0.00	-0.0075	0.002	22.778	mg/L
Sc-1	45	185032.426	185032.43				mg/L
Cl	35	32380.132	3575.76				mg/L
Kr	83	52.334	-2.33				mg/L
Br	81	6518.559	-656.53				mg/L
P	31	8067.905	-528.54				mg/L
S	34	162742.650	-16757.43				mg/L
Sr	88	90.010	33.34				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		100.510			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		103.442			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		103.359			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		102.038			

Sample ID: PBW 78 WG388212-02
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 78 WG388212-02
Report Date/Time: Tuesday, January 31, 2012 12:15:00
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: LCSW 78 WG388212-03

Sample Date/Time: Tuesday, January 31, 2012 12:20:34
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 36
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12442.659	-0.00				ug/L
	Be	9	7789.642	0.04	26.6411	1.522	5.714	ug/L
	Al	27	112201.156	0.61	24.4928	1.627	6.642	ug/L
>	Sc	45	179479.574	179479.57				ug/L
	Ti	49	113.346	0.00	0.0992	0.124	125.385	ug/L
	V	51	204639.050	0.47	24.8122	0.647	2.607	ug/L
	Cr	52	187691.469	0.42	25.2999	0.768	3.034	ug/L
	Cr	53	24304.487	0.06	27.9703	0.438	1.565	ug/L
	Mn	55	289563.269	0.67	25.9519	0.603	2.323	ug/L
	Co	59	220489.270	0.51	26.0249	0.388	1.490	ug/L
	Ni	60	46069.821	0.11	26.2625	0.256	0.975	ug/L
	Cu	65	44466.790	0.10	26.3063	0.389	1.481	ug/L
	Zn	66	26080.017	0.06	25.8157	0.331	1.283	ug/L
>	Ge	72	430295.661	430295.66				ug/L
	As	75	27745.157	0.06	25.3791	0.330	1.300	ug/L
	Se	77	2164.948	0.00	25.5656	0.548	2.144	ug/L
	Se	82	2537.679	0.01	24.5623	0.748	3.044	ug/L
	Rb	85	28.000	-0.00				mg/L
	Y	89	278901.911	-1024.45				ug/L
	Rh	103	20.334	11.00				ug/L
	Mo	98	69.092	0.00	0.0135	0.004	26.388	ug/L
	Ag	107	144698.990	0.37	27.0120	0.857	3.173	ug/L
	Cd	114	31403.997	0.08	25.3481	1.572	6.201	ug/L
>	In	115	387221.732	387221.73				ug/L
	Sn	118	337.607	0.00	-0.0023	0.003	125.283	ug/L
	Sb	123	102185.409	0.26	25.9945	0.124	0.475	ug/L
	Ba	135	38583.525	0.07	26.2034	0.132	0.504	ug/L
	Ce	140	26.669	-0.00				ug/L
>	Tb	159	522841.389	522841.39				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	162708.739	0.38	25.1001	0.672	2.679	ug/L
	Tl	205	408616.171	0.96	25.7274	0.852	3.313	ug/L
	Pb	206	136386.191	0.32	26.4985	0.181	0.682	ug/L
	Pb	207	121741.620	0.29	25.2592	0.195	0.770	ug/L
	Pb	208	565604.321	1.33	25.8940	0.244	0.942	ug/L
	U	238	887410.943	2.09	25.7080	0.322	1.252	ug/L
>	Bi	209	424419.818	424419.82				ug/L

Sample ID: LCSW 78 WG388212-03
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Na	23	30415.251	-0.05	-0.0022	0.001	28.778	mg/L
Mg	24	880.140	0.00	-0.0051	0.000	2.766	mg/L
K	39	481048.728	0.01	-0.0008	0.004	454.058	mg/L
Ca	43	153.350	0.00	-0.0059	0.002	27.234	mg/L
Fe	54	34584.802	0.00	-0.0063	0.003	45.313	mg/L
Fe	57	6850.167	-0.00	-0.0062	0.001	22.880	mg/L
Sc-1	45	179479.574	179479.57				mg/L
Cl	35	30976.806	2172.43				mg/L
Kr	83	47.667	-7.00				mg/L
Br	81	6427.814	-747.28				mg/L
P	31	7890.402	-706.04				mg/L
S	34	158200.410	-21299.67				mg/L
Sr	88	96.677	40.00				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		101.122			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		99.178			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		99.925			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		101.542			

Sample ID: LCSW 78 WG388212-03
Report Date/Time: Tuesday, January 31, 2012 12:22:45
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSW 78 WG388212-03
Report Date/Time: Tuesday, January 31, 2012 12:22:45
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201074001 WG388212-01

Sample Date/Time: Tuesday, January 31, 2012 12:28:19
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 37
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13427.579	-0.00				ug/L
	Be	9	15.333	0.00	0.0003	0.009	2973.337	ug/L
	Al	27	480445.914	2.48	99.4365	4.687	4.714	ug/L
>	Sc	45	192678.571	192678.57				ug/L
	Ti	49	1850.391	0.00	4.0841	0.285	6.980	ug/L
	V	51	4513.037	0.01	0.2960	0.011	3.675	ug/L
	Cr	52	8544.130	0.01	0.2986	0.038	12.763	ug/L
	Cr	53	1877.067	0.00	1.7872	0.282	15.764	ug/L
	Mn	55	27276.893	0.07	2.5337	0.091	3.576	ug/L
	Co	59	776.377	0.00	0.0440	0.006	13.267	ug/L
	Ni	60	1940.580	0.00	1.1307	0.119	10.529	ug/L
	Cu	65	979.734	0.00	0.4859	0.024	5.040	ug/L
	Zn	66	63126.999	0.15	66.0241	1.904	2.883	ug/L
>	Ge	72	408812.441	408812.44				ug/L
	As	75	230.964	0.00	0.3466	0.026	7.380	ug/L
	Se	77	113.334	0.00	0.6279	0.055	8.816	ug/L
	Se	82	84.280	0.00	0.7502	0.114	15.149	ug/L
	Rb	85	4591.311	0.01				mg/L
	Y	89	282732.356	2806.00				ug/L
	Rh	103	82.335	73.00				ug/L
	Mo	98	1835.677	0.00	0.7113	0.028	3.922	ug/L
	Ag	107	92.668	0.00	-0.0114	0.002	14.155	ug/L
	Cd	114	19.046	0.00	0.0064	0.015	239.361	ug/L
>	In	115	372250.783	372250.78				ug/L
	Sn	118	344.807	0.00	0.0026	0.006	212.024	ug/L
	Sb	123	894.302	0.00	0.2351	0.017	7.439	ug/L
	Ba	135	18220.421	0.03	12.2170	0.082	0.671	ug/L
	Ce	140	2720.722	0.01				ug/L
>	Tb	159	528695.415	528695.42				ug/L
	Ho	165	56.673	0.00				ug/L
	Tl	203	216.005	0.00	0.0276	0.006	22.480	ug/L
	Tl	205	586.746	0.00	0.0183	0.003	18.279	ug/L
	Pb	206	915.393	0.00	0.1167	0.010	8.267	ug/L
	Pb	207	808.048	0.00	0.1169	0.023	19.329	ug/L
	Pb	208	3699.695	0.01	0.1192	0.012	10.213	ug/L
	U	238	18210.395	0.04	0.5235	0.008	1.567	ug/L
>	Bi	209	411358.396	411358.40				ug/L

Sample ID: L1201074001 WG388212-01
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⌈	Na	23	239843194.223	1248.59	53.1883	3.772	7.091	mg/L
|	Mg	24	19224852.082	100.14	6.9443	0.468	6.734	mg/L
|	K	39	6802337.454	32.70	1.0808	0.045	4.146	mg/L
|	Ca	43	374516.771	1.95	29.5835	1.027	3.471	mg/L
|	Fe	54	123524.533	0.45	0.1619	0.017	10.215	mg/L
|	Fe	57	46936.651	0.20	0.1713	0.010	5.576	mg/L
⌊>	Sc-1	45	192678.571	192678.57				mg/L
	Cl	35	188778.956	159974.58				mg/L
	Kr	83	44.667	-10.00				mg/L
	Br	81	35839.735	28664.64				mg/L
	P	31	14779.899	6183.45				mg/L
	S	34	1082438.436	902938.36				mg/L
	Sr	88	1784597.312	1784540.64				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	6					
|	Be	9					
|	Al	27					
⌊>	Sc	45					
⌈	Ti	49					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Co	59					
|	Ni	60					
|	Cu	65					
|	Zn	66					
|>	Ge	72		96.073			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		95.344			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		101.044			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		98.417			

Sample ID: L1201074001 WG388212-01
Report Date/Time: Tuesday, January 31, 2012 12:30:32
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201074001 WG388212-01
Report Date/Time: Tuesday, January 31, 2012 12:30:32
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201074001S WG388212-04

Sample Date/Time: Tuesday, January 31, 2012 12:36:06
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 38
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13878.260	0.01				ug/L
	Be	9	7231.145	0.04	25.7913	1.285	4.984	ug/L
	Al	27	658027.643	3.82	152.6771	3.583	2.347	ug/L
>	Sc	45	171854.491	171854.49				ug/L
	Ti	49	2287.210	0.01	5.3769	0.375	6.968	ug/L
	V	51	195317.170	0.50	26.3370	0.467	1.772	ug/L
	Cr	52	171201.348	0.43	25.6590	0.396	1.542	ug/L
	Cr	53	21369.500	0.05	27.3221	0.299	1.094	ug/L
	Mn	55	279627.061	0.72	27.8563	0.221	0.793	ug/L
	Co	59	192628.654	0.50	25.2691	0.223	0.881	ug/L
	Ni	60	41246.574	0.11	26.1374	0.235	0.899	ug/L
	Cu	65	39074.806	0.10	25.6921	0.491	1.911	ug/L
	Zn	66	82465.940	0.21	91.1122	1.732	1.900	ug/L
>	Ge	72	387114.518	387114.52				ug/L
	As	75	24875.059	0.06	25.2920	0.490	1.937	ug/L
	Se	77	1769.521	0.00	23.1508	0.635	2.745	ug/L
	Se	82	2110.536	0.01	22.6937	0.224	0.989	ug/L
	Rb	85	4669.021	0.01				mg/L
	Y	89	260994.318	-18932.04				ug/L
	Rh	103	89.001	79.67				ug/L
	Mo	98	1660.155	0.00	0.6693	0.029	4.320	ug/L
	Ag	107	119798.940	0.34	24.2359	0.520	2.146	ug/L
	Cd	114	26662.571	0.07	23.3126	0.528	2.266	ug/L
>	In	115	357146.133	357146.13				ug/L
	Sn	118	387.876	0.00	0.0173	0.018	101.493	ug/L
	Sb	123	91780.407	0.26	25.3133	0.251	0.991	ug/L
	Ba	135	51882.937	0.10	36.2008	0.969	2.677	ug/L
	Ce	140	2427.263	0.00				ug/L
>	Tb	159	509233.867	509233.87				ug/L
	Ho	165	110.012	0.00				ug/L
	Tl	203	154456.222	0.41	26.5212	1.096	4.131	ug/L
	Tl	205	376982.585	0.99	26.4188	1.676	6.343	ug/L
	Pb	206	127881.329	0.33	27.6593	1.059	3.829	ug/L
	Pb	207	111647.531	0.29	25.7884	0.996	3.862	ug/L
	Pb	208	516109.891	1.35	26.3029	0.808	3.071	ug/L
	U	238	855340.970	2.24	27.5791	0.600	2.174	ug/L
>	Bi	209	381348.389	381348.39				ug/L

Sample ID: L1201074001S WG388212-04
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Na	23	236265577.238	1374.39	58.5474	0.698	1.192	mg/L
Mg	24	18867635.202	109.75	7.6113	0.189	2.489	mg/L
K	39	6341077.641	34.22	1.1313	0.017	1.486	mg/L
Ca	43	353908.836	2.06	31.2876	0.371	1.184	mg/L
Fe	54	118682.833	0.50	0.1799	0.016	9.059	mg/L
Fe	57	45022.616	0.22	0.1868	0.014	7.655	mg/L
Sc-1	45	171854.491	171854.49				mg/L
Cl	35	178546.841	149742.47				mg/L
Kr	83	49.667	-5.00				mg/L
Br	81	35442.017	28266.93				mg/L
P	31	13042.929	4446.48				mg/L
S	34	1019460.743	839960.67				mg/L
Sr	88	1706712.121	1706655.45				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		90.974			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		91.475			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		97.325			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		91.237			

Sample ID: L1201074001S WG388212-04
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201074001S WG388212-04
Report Date/Time: Tuesday, January 31, 2012 12:38:18
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Method 6020 - Summary Report

Sample ID: L1201074001SD WG388212-05

Sample Date/Time: Tuesday, January 31, 2012 12:43:52
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 39
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14362.381	0.01				ug/L
	Be	9	7264.501	0.04	24.2042	2.711	11.200	ug/L
	Al	27	652268.154	3.54	141.5236	21.526	15.211	ug/L
>	Sc	45	185177.068	185177.07				ug/L
	Ti	49	2000.451	0.00	4.5640	1.261	27.619	ug/L
	V	51	200112.921	0.50	26.3199	2.445	9.289	ug/L
	Cr	52	177946.836	0.43	26.0146	1.819	6.992	ug/L
	Cr	53	22442.446	0.06	27.9915	2.081	7.434	ug/L
	Mn	55	290318.956	0.73	28.1614	0.545	1.934	ug/L
	Co	59	198259.883	0.50	25.3200	0.227	0.897	ug/L
	Ni	60	41861.841	0.11	25.8079	0.478	1.853	ug/L
	Cu	65	39330.741	0.10	25.1705	0.454	1.804	ug/L
	Zn	66	84243.499	0.21	90.5999	0.426	0.470	ug/L
>	Ge	72	397724.649	397724.65				ug/L
	As	75	24936.564	0.06	24.6747	0.601	2.434	ug/L
	Se	77	1782.858	0.00	22.7014	0.997	4.391	ug/L
	Se	82	2173.220	0.01	22.7444	0.283	1.242	ug/L
	Rb	85	4697.372	0.01				mg/L
	Y	89	271065.641	-8860.72				ug/L
	Rh	103	67.668	58.33				ug/L
	Mo	98	1616.890	0.00	0.6244	0.021	3.295	ug/L
	Ag	107	119715.818	0.32	23.2350	0.794	3.417	ug/L
	Cd	114	28003.254	0.08	23.5016	1.191	5.067	ug/L
>	In	115	372388.309	372388.31				ug/L
	Sn	118	744.433	0.00	0.1004	0.005	5.135	ug/L
	Sb	123	91930.748	0.25	24.3129	0.351	1.444	ug/L
	Ba	135	52115.644	0.10	36.3194	0.856	2.356	ug/L
	Ce	140	2727.409	0.01				ug/L
>	Tb	159	509902.188	509902.19				ug/L
	Ho	165	66.674	0.00				ug/L
	Tl	203	151996.896	0.38	24.9696	0.349	1.396	ug/L
	Tl	205	370770.029	0.93	24.8597	0.958	3.855	ug/L
	Pb	206	128143.111	0.32	26.5180	0.681	2.568	ug/L
	Pb	207	113011.360	0.28	24.9772	0.730	2.921	ug/L
	Pb	208	522245.742	1.31	25.4658	0.486	1.909	ug/L
	U	238	892587.694	2.24	27.5473	1.038	3.767	ug/L
>	Bi	209	398571.246	398571.25				ug/L

Sample ID: L1201074001SD WG388212-05
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Na	23	245510860.019	1331.51	56.7206	4.609	8.126	mg/L
Mg	24	19706301.273	106.95	7.4168	0.674	9.092	mg/L
K	39	6649361.072	33.29	1.1004	0.032	2.939	mg/L
Ca	43	368508.672	1.99	30.2893	1.053	3.476	mg/L
Fe	54	127414.698	0.50	0.1797	0.018	10.070	mg/L
Fe	57	53084.885	0.25	0.2095	0.037	17.635	mg/L
Sc-1	45	185177.068	185177.07				mg/L
Cl	35	180710.788	151906.41				mg/L
Kr	83	49.667	-5.00				mg/L
Br	81	41609.190	34434.10				mg/L
P	31	15220.662	6624.22				mg/L
S	34	1097725.561	918225.48				mg/L
Sr	88	1736182.841	1736126.17				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		93.467			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.379			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		97.452			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		95.358			

Sample ID: L1201074001SD WG388212-05
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201074001SD WG388212-05
Report Date/Time: Tuesday, January 31, 2012 12:46:04
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Method 6020 - Summary Report

Sample ID: L1201072601

Sample Date/Time: Tuesday, January 31, 2012 12:51:38
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 40
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	15631.361	0.01				ug/L
	Be	9	5.333	-0.00	-0.0317	0.010	31.883	ug/L
	Al	27	193528.567	0.98	39.3407	3.503	8.904	ug/L
>	Sc	45	195110.457	195110.46				ug/L
	Ti	49	783.449	0.00	1.6319	0.270	16.534	ug/L
	V	51	22109.254	0.05	2.5303	0.131	5.178	ug/L
	Cr	52	8909.186	0.01	0.3384	0.036	10.779	ug/L
	Cr	53	3017.515	0.01	3.1582	0.299	9.453	ug/L
	Mn	55	79101.010	0.19	7.3467	0.030	0.404	ug/L
	Co	59	415.681	0.00	-0.0015	0.003	192.895	ug/L
	Ni	60	718.038	0.00	0.3898	0.013	3.454	ug/L
	Cu	65	968.066	0.00	0.4712	0.015	3.162	ug/L
	Zn	66	2061.609	0.00	1.9901	0.056	2.816	ug/L
>	Ge	72	413395.675	413395.68				ug/L
	As	75	1618.548	0.00	1.6573	0.039	2.357	ug/L
	Se	77	210.003	0.00	1.8411	0.153	8.300	ug/L
	Se	82	99.234	0.00	0.8891	0.119	13.393	ug/L
	Rb	85	5783.402	0.01				mg/L
	Y	89	279673.027	-253.33				ug/L
	Rh	103	45.667	36.33				ug/L
	Mo	98	3798.211	0.01	1.4742	0.030	2.052	ug/L
	Ag	107	111.002	0.00	-0.0080	0.001	8.113	ug/L
	Cd	114	17.856	0.00	0.0054	0.004	75.452	ug/L
>	In	115	374618.999	374619.00				ug/L
	Sn	118	426.678	0.00	0.0220	0.003	15.224	ug/L
	Sb	123	371.341	0.00	0.0959	0.008	8.112	ug/L
	Ba	135	21858.567	0.04	14.7152	0.224	1.525	ug/L
	Ce	140	1700.345	0.00				ug/L
>	Tb	159	526974.425	526974.43				ug/L
	Ho	165	46.671	0.00				ug/L
	Tl	203	96.002	0.00	0.0091	0.002	19.461	ug/L
	Tl	205	216.691	0.00	-0.0051	0.001	15.241	ug/L
	Pb	206	675.034	0.00	0.0742	0.007	9.637	ug/L
	Pb	207	577.359	0.00	0.0725	0.007	9.306	ug/L
	Pb	208	2622.186	0.00	0.0733	0.002	2.552	ug/L
	U	238	234735.821	0.59	7.2953	0.154	2.108	ug/L
>	Bi	209	394572.451	394572.45				ug/L

Sample ID: L1201072601
Report Date/Time: Tuesday, January 31, 2012 12:53:51
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⌈	Na	23	S	S	S	S	S	mg/L
|	Mg	24	4406695.430	22.71	1.5705	0.114	7.255	mg/L
|	K	39	5341619.582	24.81	0.8199	0.049	5.965	mg/L
|	Ca	43	41079.279	0.21	3.1830	0.094	2.966	mg/L
|	Fe	54	82459.517	0.24	0.0804	0.014	17.997	mg/L
|	Fe	57	16421.173	0.04	0.0338	0.006	17.907	mg/L
⌊>	Sc-1	45	195110.457	195110.46				mg/L
	Cl	35	1520873.256	1492068.88				mg/L
	Kr	83	50.001	-4.67				mg/L
	Br	81	59904.311	52729.22				mg/L
	P	31	18862.714	10266.27				mg/L
	S	34	860303.854	680803.78				mg/L
	Sr	88	978301.533	978244.86				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	6					
|	Be	9					
|	Al	27					
⌊>	Sc	45					
⌈	Ti	49					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Co	59					
|	Ni	60					
|	Cu	65					
|	Zn	66					
|>	Ge	72		97.150			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		95.950			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		100.715			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		94.401			

Sample ID: L1201072601
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201072601
Report Date/Time: Tuesday, January 31, 2012 12:53:51
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Method 6020 - Summary Report

Sample ID: L1201072602

Sample Date/Time: Tuesday, January 31, 2012 12:59:25
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 41
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14579.454	0.01				ug/L
	Be	9	6.000	-0.00	-0.0292	0.006	22.118	ug/L
	Al	27	75458.414	0.38	15.3071	1.222	7.981	ug/L
>	Sc	45	190400.724	190400.72				ug/L
	Ti	49	390.048	0.00	0.6987	0.036	5.083	ug/L
	V	51	2430.219	0.00	0.0107	0.027	253.021	ug/L
	Cr	52	7515.130	0.00	0.0881	0.002	2.204	ug/L
	Cr	53	1253.553	0.00	0.9303	0.118	12.690	ug/L
	Mn	55	4446.898	0.01	0.3539	0.008	2.221	ug/L
	Co	59	124.336	0.00	-0.0381	0.001	3.638	ug/L
	Ni	60	186.004	0.00	0.0687	0.015	21.146	ug/L
	Cu	65	195.004	0.00	-0.0117	0.008	66.461	ug/L
	Zn	66	456.017	0.00	0.3045	0.038	12.558	ug/L
>	Ge	72	431514.000	431514.00				ug/L
	As	75	-117.107	0.00	0.0181	0.040	221.344	ug/L
	Se	77	80.667	0.00	0.1546	0.222	143.351	ug/L
	Se	82	6.275	0.00	-0.0524	0.169	323.027	ug/L
	Rb	85	336.677	0.00				mg/L
	Y	89	289554.155	9627.80				ug/L
	Rh	103	9.667	0.33				ug/L
	Mo	98	27.347	0.00	-0.0027	0.001	27.856	ug/L
	Ag	107	80.335	0.00	-0.0149	0.002	14.334	ug/L
	Cd	114	9.595	0.00	-0.0018	0.010	547.839	ug/L
>	In	115	399649.369	399649.37				ug/L
	Sn	118	342.674	0.00	-0.0035	0.005	147.052	ug/L
	Sb	123	109.121	0.00	0.0250	0.002	6.800	ug/L
	Ba	135	200.004	0.00	0.0930	0.011	11.412	ug/L
	Ce	140	826.791	0.00				ug/L
>	Tb	159	553178.802	553178.80				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	63.334	0.00	0.0029	0.001	42.423	ug/L
	Tl	205	206.690	0.00	-0.0069	0.003	36.919	ug/L
	Pb	206	301.008	0.00	-0.0090	0.001	7.200	ug/L
	Pb	207	280.674	0.00	0.0014	0.006	454.491	ug/L
	Pb	208	1236.715	0.00	0.0003	0.002	685.996	ug/L
	U	238	138.669	0.00	-0.0173	0.001	3.293	ug/L
>	Bi	209	427199.539	427199.54				ug/L

Sample ID: L1201072602
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⌈	Na	23	178544.542	0.72	0.0305	0.001	4.262	mg/L
|	Mg	24	37993.574	0.20	0.0084	0.000	2.595	mg/L
|	K	39	484137.619	-0.13	-0.0054	0.001	23.948	mg/L
|	Ca	43	470.061	0.00	0.0186	0.007	37.219	mg/L
|	Fe	54	73627.654	0.20	0.0661	0.002	2.972	mg/L
|	Fe	57	10447.604	0.01	0.0082	0.002	29.046	mg/L
⌊>	Sc-1	45	190400.724	190400.72				mg/L
	Cl	35	28909.394	105.02				mg/L
	Kr	83	45.001	-9.67				mg/L
	Br	81	8369.538	1194.45				mg/L
	P	31	14783.786	6187.34				mg/L
	S	34	168044.335	-11455.74				mg/L
	Sr	88	1580.308	1523.64				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	6					
|	Be	9					
|	Al	27					
⌊>	Sc	45					
⌈	Ti	49					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Co	59					
|	Ni	60					
|	Cu	65					
|	Zn	66					
|>	Ge	72		101.408			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		102.361			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		105.724			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		102.207			

Sample ID: L1201072602
Report Date/Time: Tuesday, January 31, 2012 13:01:38
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201072602
Report Date/Time: Tuesday, January 31, 2012 13:01:38
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201068508

Sample Date/Time: Tuesday, January 31, 2012 13:07:13
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 42
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14679.592	0.00				ug/L
	Be	9	13.333	0.00	-0.0066	0.005	79.184	ug/L
	Al	27	92166.257	0.45	18.2414	2.873	15.751	ug/L
>	Sc	45	196151.181	196151.18				ug/L
	Ti	49	240.028	0.00	0.3714	0.112	30.280	ug/L
	V	51	2449.143	0.00	0.0110	0.012	111.269	ug/L
	Cr	52	7593.868	0.00	0.0933	0.012	12.924	ug/L
	Cr	53	1270.224	0.00	0.9400	0.123	13.122	ug/L
	Mn	55	12394.006	0.03	1.0596	0.044	4.157	ug/L
	Co	59	187.004	0.00	-0.0308	0.002	5.617	ug/L
	Ni	60	505.687	0.00	0.2490	0.011	4.584	ug/L
	Cu	65	486.686	0.00	0.1596	0.014	8.905	ug/L
	Zn	66	870.721	0.00	0.7116	0.025	3.565	ug/L
>	Ge	72	433886.009	433886.01				ug/L
	As	75	-139.939	0.00	-0.0017	0.072	4144.411	ug/L
	Se	77	72.000	-0.00	0.0455	0.043	94.340	ug/L
	Se	82	2.209	-0.00	-0.0907	0.172	189.665	ug/L
	Rb	85	521.022	0.00				mg/L
	Y	89	312861.186	32934.83				ug/L
	Rh	103	6.333	-3.00				ug/L
	Mo	98	83.864	0.00	0.0174	0.002	9.907	ug/L
	Ag	107	69.334	-0.00	-0.0171	0.000	1.994	ug/L
	Cd	114	11.190	0.00	-0.0009	0.001	113.435	ug/L
>	In	115	407479.301	407479.30				ug/L
	Sn	118	528.417	0.00	0.0365	0.006	15.787	ug/L
	Sb	123	92.120	0.00	0.0204	0.004	21.219	ug/L
	Ba	135	746.041	0.00	0.4362	0.014	3.129	ug/L
	Ce	140	806.787	0.00				ug/L
>	Tb	159	562032.788	562032.79				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	61.001	0.00	0.0022	0.001	26.153	ug/L
	Tl	205	163.351	0.00	-0.0101	0.003	31.500	ug/L
	Pb	206	464.351	0.00	0.0191	0.009	45.585	ug/L
	Pb	207	393.680	0.00	0.0215	0.002	10.837	ug/L
	Pb	208	1835.765	0.00	0.0243	0.001	5.613	ug/L
	U	238	97.335	0.00	-0.0186	0.000	0.892	ug/L
>	Bi	209	445197.596	445197.60				ug/L

Sample ID: L1201068508
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Na	23	251517.922	1.07	0.0453	0.003	7.043	mg/L
Mg	24	13051.517	0.06	-0.0008	0.000	28.789	mg/L
K	39	517563.754	-0.03	-0.0022	0.003	139.920	mg/L
Ca	43	390.048	0.00	0.0113	0.001	4.865	mg/L
Fe	54	86574.181	0.25	0.0868	0.011	12.570	mg/L
Fe	57	12433.871	0.02	0.0155	0.003	18.456	mg/L
Sc-1	45	196151.181	196151.18				mg/L
Cl	35	27440.442	-1363.93				mg/L
Kr	83	52.667	-2.00				mg/L
Br	81	7439.996	264.91				mg/L
P	31	16219.793	7623.35				mg/L
S	34	166398.888	-13101.19				mg/L
Sr	88	973.488	916.82				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		101.965			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		104.367			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		107.416			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		106.513			

Sample ID: L1201068508
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201068508
Report Date/Time: Tuesday, January 31, 2012 13:09:26
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Method 6020 - Summary Report

Sample ID: L1201068508PS WG388245-01

Sample Date/Time: Tuesday, January 31, 2012 13:15:00
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 43
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14212.110	0.00				ug/L
	Be	9	16800.941	0.09	52.4803	1.723	3.282	ug/L
	Al	27	361550.439	1.83	73.1072	3.962	5.420	ug/L
>	Sc	45	196542.327	196542.33				ug/L
	Ti	49	233.360	0.00	0.3476	0.121	34.760	ug/L
	V	51	465596.576	1.05	55.2582	1.201	2.174	ug/L
	Cr	52	415270.198	0.92	55.5458	0.531	0.956	ug/L
	Cr	53	49578.713	0.11	56.0313	1.758	3.138	ug/L
	Mn	55	646367.021	1.46	56.3975	0.959	1.700	ug/L
	Co	59	478246.254	1.08	54.9661	0.818	1.489	ug/L
	Ni	60	98545.928	0.22	54.6940	1.044	1.910	ug/L
	Cu	65	96549.077	0.22	55.7045	0.923	1.657	ug/L
	Zn	66	51167.120	0.12	49.4049	0.613	1.240	ug/L
>	Ge	72	442381.150	442381.15				ug/L
	As	75	57594.590	0.13	51.1255	1.353	2.647	ug/L
	Se	77	4131.691	0.01	48.1735	1.389	2.883	ug/L
	Se	82	5011.113	0.01	47.2828	2.289	4.841	ug/L
	Rb	85	438.349	0.00				mg/L
	Y	89	288901.221	8974.86				ug/L
	Rh	103	21.334	12.00				ug/L
	Mo	98	145.678	0.00	0.0405	0.006	13.854	ug/L
	Ag	107	313968.426	0.78	56.5309	0.856	1.514	ug/L
	Cd	114	67300.636	0.17	52.3571	1.430	2.730	ug/L
>	In	115	401528.961	401528.96				ug/L
	Sn	118	549.751	0.00	0.0430	0.005	10.520	ug/L
	Sb	123	216959.532	0.54	53.2220	0.869	1.633	ug/L
	Ba	135	85864.287	0.15	54.5359	1.079	1.979	ug/L
	Ce	140	736.773	0.00				ug/L
>	Tb	159	559571.127	559571.13				ug/L
	Ho	165	23.336	0.00				ug/L
	Tl	203	365106.207	0.84	55.3271	1.129	2.040	ug/L
	Tl	205	901263.955	2.09	55.7526	1.612	2.892	ug/L
	Pb	206	306951.004	0.71	58.6736	1.890	3.220	ug/L
	Pb	207	272355.863	0.63	55.5877	1.572	2.828	ug/L
	Pb	208	1265325.023	2.93	56.9754	1.217	2.136	ug/L
	U	238	1936080.343	4.48	55.1434	2.806	5.089	ug/L
>	Bi	209	432191.533	432191.53				ug/L

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Na	23	212620.150	0.87	0.0367	0.002	4.820	mg/L
Mg	24	13549.097	0.07	-0.0007	0.000	60.002	mg/L
K	39	499429.414	-0.13	-0.0054	0.003	54.924	mg/L
Ca	43	360.044	0.00	0.0089	0.003	30.847	mg/L
Fe	54	79714.094	0.22	0.0733	0.011	15.382	mg/L
Fe	57	12624.160	0.02	0.0163	0.001	7.333	mg/L
Sc-1	45	196542.327	196542.33				mg/L
Cl	35	26093.459	-2710.92				mg/L
Kr	83	55.001	0.33				mg/L
Br	81	7139.745	-35.35				mg/L
P	31	15879.909	7283.46				mg/L
S	34	165981.994	-13518.08				mg/L
Sr	88	780.115	723.44				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		103.962			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		102.843			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		106.945			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		103.401			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201068508PS WG388245-01
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Method 6020 - Summary Report

Sample ID: L1201068508SDL WG388245-02

Sample Date/Time: Tuesday, January 31, 2012 13:22:48
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 44
Method File: C:\elandata\Method\6020a.mth
Sample Description: 5

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14512.644	0.01				ug/L
	Be	9	9.333	0.00	-0.0169	0.015	86.498	ug/L
	Al	27	24123.467	0.12	4.7731	2.623	54.960	ug/L
>	Sc	45	182733.059	182733.06				ug/L
	Ti	49	113.345	0.00	0.0977	0.041	41.892	ug/L
	V	51	2092.256	-0.00	-0.0318	0.014	44.904	ug/L
	Cr	52	6598.013	-0.00	-0.0434	0.038	87.849	ug/L
	Cr	53	986.824	0.00	0.6139	0.157	25.603	ug/L
	Mn	55	3689.854	0.01	0.2849	0.007	2.551	ug/L
	Co	59	112.669	0.00	-0.0396	0.001	3.726	ug/L
	Ni	60	204.005	0.00	0.0784	0.005	6.891	ug/L
	Cu	65	193.004	0.00	-0.0133	0.012	93.192	ug/L
	Zn	66	455.684	0.00	0.3020	0.030	10.006	ug/L
>	Ge	72	433254.066	433254.07				ug/L
	As	75	-139.109	0.00	-0.0009	0.045	5002.334	ug/L
	Se	77	59.334	-0.00	-0.1086	0.199	183.146	ug/L
	Se	82	-1.099	-0.00	-0.1221	0.137	112.216	ug/L
	Rb	85	136.336	0.00				mg/L
	Y	89	281701.131	1774.77				ug/L
	Rh	103	6.000	-3.33				ug/L
	Mo	98	27.379	0.00	-0.0027	0.001	30.861	ug/L
	Ag	107	92.668	0.00	-0.0127	0.002	12.061	ug/L
	Cd	114	9.688	0.00	-0.0019	0.003	174.711	ug/L
>	In	115	401565.164	401565.16				ug/L
	Sn	118	362.141	0.00	0.0004	0.004	883.642	ug/L
	Sb	123	403.214	0.00	0.0969	0.011	11.453	ug/L
	Ba	135	139.669	0.00	0.0552	0.008	14.665	ug/L
	Ce	140	133.348	0.00				ug/L
>	Tb	159	546282.356	546282.36				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	74.001	0.00	0.0045	0.000	9.545	ug/L
	Tl	205	133.348	0.00	-0.0115	0.001	12.224	ug/L
	Pb	206	338.010	0.00	-0.0022	0.007	304.141	ug/L
	Pb	207	310.009	0.00	0.0071	0.005	69.862	ug/L
	Pb	208	1392.060	0.00	0.0071	0.001	19.154	ug/L
	U	238	138.669	0.00	-0.0173	0.000	2.366	ug/L
>	Bi	209	429539.862	429539.86				ug/L

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Na	23	102898.291	0.35	0.0146	0.001	4.590	mg/L
Mg	24	2917.472	0.01	-0.0043	0.000	2.280	mg/L
K	39	473705.331	-0.08	-0.0038	0.002	51.248	mg/L
Ca	43	223.359	0.00	-0.0003	0.003	1029.687	mg/L
Fe	54	41495.309	0.04	0.0065	0.003	47.964	mg/L
Fe	57	8488.505	0.01	0.0010	0.002	220.620	mg/L
Sc-1	45	182733.059	182733.06				mg/L
Cl	35	24821.583	-3982.79				mg/L
Kr	83	49.667	-5.00				mg/L
Br	81	6315.059	-860.03				mg/L
P	31	9087.037	490.59				mg/L
S	34	170566.879	-8933.20				mg/L
Sr	88	313.371	256.70				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		101.817			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		102.852			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		104.405			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		102.767			

Sample ID: L1201068508SDL WG388245-02
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201068508SDL WG388245-02
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, January 31, 2012 13:30:36
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 5
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13410.801	0.00				ug/L
	Be	9	15344.117	0.08	50.6160	2.510	4.959	ug/L
	Al	27	231062.870	1.23	49.1381	3.182	6.476	ug/L
>	Sc	45	186346.460	186346.46				ug/L
	Ti	49	47285.161	0.11	100.9203	1.394	1.381	ug/L
	V	51	412302.993	0.94	49.4449	0.897	1.814	ug/L
	Cr	52	361932.395	0.81	48.8465	0.911	1.865	ug/L
	Cr	53	43842.751	0.10	50.0561	1.552	3.100	ug/L
	Mn	55	563987.416	1.29	49.7532	0.243	0.489	ug/L
	Co	59	431606.066	0.99	50.1610	0.826	1.647	ug/L
	Ni	60	89853.720	0.21	50.4295	0.943	1.870	ug/L
	Cu	65	84707.700	0.19	49.3970	0.468	0.948	ug/L
	Zn	66	51112.843	0.12	49.9003	0.493	0.988	ug/L
>	Ge	72	437467.317	437467.32				ug/L
	As	75	55480.751	0.13	49.8113	1.514	3.040	ug/L
	Se	77	4345.800	0.01	51.2874	1.685	3.286	ug/L
	Se	82	5096.910	0.01	48.6340	1.031	2.121	ug/L
	Rb	85	2038.603	0.00				mg/L
	Y	89	289157.901	9231.54				ug/L
	Rh	103	22.667	13.33				ug/L
	Mo	98	275623.444	0.69	101.9199	2.804	2.751	ug/L
	Ag	107	277195.908	0.70	50.5008	1.022	2.023	ug/L
	Cd	114	62474.535	0.16	49.2220	3.151	6.401	ug/L
>	In	115	396933.663	396933.66				ug/L
	Sn	118	216540.779	0.55	49.6689	2.162	4.352	ug/L
	Sb	123	200298.920	0.50	49.7240	1.035	2.081	ug/L
	Ba	135	76958.185	0.14	50.3023	0.845	1.679	ug/L
	Ce	140	100.011	0.00				ug/L
>	Tb	159	543628.111	543628.11				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	323424.154	0.78	51.2286	1.261	2.462	ug/L
	Tl	205	786531.959	1.90	50.8757	1.678	3.298	ug/L
	Pb	206	261547.347	0.63	52.2881	3.193	6.106	ug/L
	Pb	207	246262.976	0.60	52.5425	1.397	2.659	ug/L
	Pb	208	1090826.115	2.64	51.3502	1.395	2.716	ug/L
	U	238	1787078.229	4.32	53.1673	0.334	0.628	ug/L
>	Bi	209	413417.006	413417.01				ug/L

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Na	23	21849239.841	117.19	4.9918	0.239	4.781	mg/L
Mg	24	13567383.202	72.88	5.0523	0.176	3.487	mg/L
K	39	29768102.289	157.19	5.2008	0.144	2.775	mg/L
Ca	43	62251.266	0.33	5.0628	0.125	2.460	mg/L
Fe	54	2568134.234	13.60	5.0720	0.079	1.550	mg/L
Fe	57	1151030.651	6.14	5.2864	0.164	3.098	mg/L
Sc-1	45	186346.460	186346.46				mg/L
Cl	35	25882.807	-2921.57				mg/L
Kr	83	45.334	-9.33				mg/L
Br	81	6311.726	-863.36				mg/L
P	31	8791.369	194.92				mg/L
S	34	167034.776	-12465.30				mg/L
Sr	88	4645.093	4588.42				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	98.890				
Cr	52	97.693				
Cr	53					
Mn	55	99.506				
Co	59	100.322				
Ni	60	100.859				
Cu	65	98.794				
Zn	66	99.801				
Ge	72		102.807			
As	75	99.623				
Se	77					
Se	82	97.268				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	101.002				
Cd	114	98.444				
In	115		101.666			
Sn	118					
Sb	123	99.448				
Ba	135	100.605				
Ce	140					
Tb	159		103.898			
Ho	165					
Tl	203	102.457				
Tl	205					
Pb	206					
Pb	207					
Pb	208	102.700				
U	238	106.335				
Bi	209		98.909			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, January 31, 2012 13:38:13
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13427.585	0.01				ug/L
	Be	9	14.667	0.00	0.0028	0.039	1397.178	ug/L
	Al	27	2900.519	0.00	0.1184	0.139	117.235	ug/L
>	Sc	45	176278.359	176278.36				ug/L
	Ti	49	50.005	0.00	-0.0368	0.022	60.631	ug/L
	V	51	1988.676	-0.00	-0.0410	0.008	19.513	ug/L
	Cr	52	6367.496	-0.00	-0.0627	0.026	41.567	ug/L
	Cr	53	973.488	0.00	0.6142	0.128	20.842	ug/L
	Mn	55	336.344	0.00	-0.0137	0.005	34.966	ug/L
	Co	59	99.002	0.00	-0.0410	0.001	2.751	ug/L
	Ni	60	46.001	0.00	-0.0109	0.005	44.406	ug/L
	Cu	65	172.337	0.00	-0.0240	0.008	31.766	ug/L
	Zn	66	89.335	-0.00	-0.0586	0.008	12.828	ug/L
>	Ge	72	427089.841	427089.84				ug/L
	As	75	-133.928	0.00	0.0020	0.021	1039.636	ug/L
	Se	77	66.000	-0.00	-0.0144	0.130	905.238	ug/L
	Se	82	3.232	-0.00	-0.0795	0.054	67.890	ug/L
	Rb	85	28.000	-0.00				mg/L
	Y	89	279593.367	-332.99				ug/L
	Rh	103	10.667	1.33				ug/L
	Mo	98	83.307	0.00	0.0183	0.003	15.629	ug/L
	Ag	107	127.669	0.00	-0.0059	0.002	30.433	ug/L
	Cd	114	13.241	0.00	0.0011	0.005	458.683	ug/L
>	In	115	393542.460	393542.46				ug/L
	Sn	118	331.740	0.00	-0.0049	0.004	78.557	ug/L
	Sb	123	88.701	0.00	0.0203	0.003	14.422	ug/L
	Ba	135	54.334	0.00	0.0011	0.004	422.620	ug/L
	Ce	140	13.335	-0.00				ug/L
>	Tb	159	526130.236	526130.24				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	87.335	0.00	0.0070	0.003	48.396	ug/L
	Tl	205	210.024	0.00	-0.0064	0.003	54.782	ug/L
	Pb	206	288.008	0.00	-0.0102	0.006	59.441	ug/L
	Pb	207	256.340	0.00	-0.0023	0.002	94.109	ug/L
	Pb	208	1154.043	0.00	-0.0021	0.001	64.966	ug/L
	U	238	231.006	0.00	-0.0145	0.001	7.239	ug/L
>	Bi	209	416825.832	416825.83				ug/L

Sample ID: QC Std 7
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Na	23	50369.981	0.07	0.0028	0.002	74.495	mg/L
Mg	24	1860.413	0.01	-0.0047	0.000	5.663	mg/L
K	39	457635.821	-0.07	-0.0037	0.000	9.496	mg/L
Ca	43	193.355	0.00	-0.0022	0.002	98.308	mg/L
Fe	54	34910.897	0.01	-0.0044	0.002	48.327	mg/L
Fe	57	7077.047	-0.00	-0.0045	0.001	28.250	mg/L
Sc-1	45	176278.359	176278.36				mg/L
Cl	35	24522.698	-4281.68				mg/L
Kr	83	50.001	-4.67				mg/L
Br	81	6286.378	-888.71				mg/L
P	31	8938.856	342.41				mg/L
S	34	163973.991	-15526.09				mg/L
Sr	88	80.008	23.34				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		100.368			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		100.797			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		100.554			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		99.725			

Sample ID: QC Std 7
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1201068509

Sample Date/Time: Tuesday, January 31, 2012 13:45:50
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 45
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14028.484	0.00				ug/L
	Be	9	10.667	0.00	-0.0142	0.013	93.675	ug/L
	Al	27	12159.065	0.05	2.0115	0.460	22.884	ug/L
>	Sc	45	190640.531	190640.53				ug/L
	Ti	49	93.343	0.00	0.0533	0.023	44.019	ug/L
	V	51	2157.467	0.00	-0.0260	0.018	70.063	ug/L
	Cr	52	7875.800	0.00	0.1252	0.026	20.648	ug/L
	Cr	53	893.471	0.00	0.4964	0.096	19.320	ug/L
	Mn	55	4921.836	0.01	0.3912	0.008	1.930	ug/L
	Co	59	120.002	0.00	-0.0388	0.001	3.706	ug/L
	Ni	60	217.338	0.00	0.0850	0.013	15.271	ug/L
	Cu	65	299.342	0.00	0.0480	0.006	13.046	ug/L
	Zn	66	615.029	0.00	0.4551	0.029	6.453	ug/L
>	Ge	72	436812.150	436812.15				ug/L
	As	75	-118.150	0.00	0.0192	0.048	249.160	ug/L
	Se	77	63.334	-0.00	-0.0647	0.082	127.520	ug/L
	Se	82	17.942	0.00	0.0615	0.145	236.240	ug/L
	Rb	85	70.334	0.00				mg/L
	Y	89	297943.214	18016.86				ug/L
	Rh	103	8.000	-1.33				ug/L
	Mo	98	155.199	0.00	0.0432	0.001	1.986	ug/L
	Ag	107	87.668	0.00	-0.0138	0.002	16.940	ug/L
	Cd	114	7.859	0.00	-0.0034	0.003	85.969	ug/L
>	In	115	407346.673	407346.67				ug/L
	Sn	118	1483.332	0.00	0.2501	0.007	2.661	ug/L
	Sb	123	200.997	0.00	0.0467	0.003	5.639	ug/L
	Ba	135	101.668	0.00	0.0286	0.012	41.105	ug/L
	Ce	140	83.342	0.00				ug/L
>	Tb	159	561303.858	561303.86				ug/L
	Ho	165	6.667	-0.00				ug/L
	Tl	203	51.667	0.00	0.0011	0.001	113.939	ug/L
	Tl	205	133.348	0.00	-0.0116	0.001	10.895	ug/L
	Pb	206	321.009	0.00	-0.0054	0.006	103.403	ug/L
	Pb	207	281.341	0.00	0.0013	0.005	349.444	ug/L
	Pb	208	1307.387	0.00	0.0034	0.004	111.344	ug/L
	U	238	118.002	0.00	-0.0179	0.001	3.475	ug/L
>	Bi	209	429128.693	429128.69				ug/L

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Na	23	177800.267	0.72	0.0304	0.003	8.285	mg/L
Mg	24	13943.063	0.07	-0.0004	0.000	97.286	mg/L
K	39	473981.642	-0.18	-0.0072	0.004	48.509	mg/L
Ca	43	393.382	0.00	0.0126	0.008	61.506	mg/L
Fe	54	70577.729	0.18	0.0600	0.005	9.022	mg/L
Fe	57	8935.713	0.01	0.0014	0.005	358.720	mg/L
Sc-1	45	190640.531	190640.53				mg/L
Cl	35	26477.334	-2327.04				mg/L
Kr	83	45.001	-9.67				mg/L
Br	81	6772.087	-403.00				mg/L
P	31	14323.081	5726.64				mg/L
S	34	160227.689	-19272.39				mg/L
Sr	88	860.131	803.46				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		102.653			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		104.333			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		107.276			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		102.668			

Sample ID: L1201068509
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201068509
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Method 6020 - Summary Report

Sample ID: L1201068601

Sample Date/Time: Tuesday, January 31, 2012 13:53:39
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 46
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14162.252	0.00				ug/L
	Be	9	10.000	0.00	-0.0182	0.008	42.601	ug/L
	Al	27	76181.098	0.37	14.7123	0.583	3.965	ug/L
>	Sc	45	200015.953	200015.95				ug/L
	Ti	49	613.418	0.00	1.2159	0.240	19.734	ug/L
	V	51	19062.675	0.04	2.0928	0.060	2.878	ug/L
	Cr	52	19528.762	0.03	1.8202	0.014	0.744	ug/L
	Cr	53	2837.434	0.01	2.8533	0.110	3.869	ug/L
	Mn	55	9576.271	0.02	0.8310	0.012	1.426	ug/L
	Co	59	567.692	0.00	0.0156	0.002	10.829	ug/L
	Ni	60	2254.995	0.01	1.2730	0.019	1.501	ug/L
	Cu	65	912.059	0.00	0.4257	0.032	7.624	ug/L
	Zn	66	3232.993	0.01	3.1309	0.087	2.791	ug/L
>	Ge	72	422692.989	422692.99				ug/L
	As	75	1617.589	0.00	1.6269	0.118	7.245	ug/L
	Se	77	122.668	0.00	0.6878	0.300	43.614	ug/L
	Se	82	510.259	0.00	4.9540	0.546	11.027	ug/L
	Rb	85	8272.854	0.02				mg/L
	Y	89	296113.783	16187.42				ug/L
	Rh	103	83.335	74.00				ug/L
	Mo	98	3650.887	0.01	1.3884	0.024	1.697	ug/L
	Ag	107	86.335	0.00	-0.0131	0.002	15.767	ug/L
	Cd	114	19.859	0.00	0.0068	0.007	97.444	ug/L
>	In	115	382352.238	382352.24				ug/L
	Sn	118	567.753	0.00	0.0535	0.004	7.565	ug/L
	Sb	123	303.169	0.00	0.0763	0.005	6.225	ug/L
	Ba	135	59115.878	0.11	39.4465	0.849	2.153	ug/L
	Ce	140	1046.837	0.00				ug/L
>	Tb	159	532461.047	532461.05				ug/L
	Ho	165	23.336	0.00				ug/L
	Tl	203	106.002	0.00	0.0092	0.001	12.122	ug/L
	Tl	205	263.364	0.00	-0.0036	0.002	42.360	ug/L
	Pb	206	521.688	0.00	0.0323	0.005	16.424	ug/L
	Pb	207	445.683	0.00	0.0343	0.009	25.559	ug/L
	Pb	208	2078.123	0.00	0.0374	0.002	5.211	ug/L
	U	238	29177.435	0.07	0.8066	0.028	3.529	ug/L
>	Bi	209	433317.508	433317.51				ug/L

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Na	23	56176661.146	281.22	11.9795	0.523	4.366	mg/L
Mg	24	13099895.450	65.60	4.5477	0.168	3.704	mg/L
K	39	7939807.967	37.12	1.2272	0.070	5.700	mg/L
Ca	43	393900.444	1.97	29.9417	0.948	3.167	mg/L
Fe	54	99929.065	0.31	0.1085	0.004	3.711	mg/L
Fe	57	39125.886	0.16	0.1305	0.023	17.719	mg/L
Sc-1	45	200015.953	200015.95				mg/L
Cl	35	390941.838	362137.46				mg/L
Kr	83	49.667	-5.00				mg/L
Br	81	323750.521	316575.43				mg/L
P	31	16815.807	8219.36				mg/L
S	34	579533.993	400033.92				mg/L
Sr	88	2394568.713	2394512.04				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		99.335			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		97.931			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		101.764			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		103.671			

Sample ID: L1201068601
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201068601
Report Date/Time: Tuesday, January 31, 2012 13:55:52
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Method 6020 - Summary Report

Sample ID: L1201068602

Sample Date/Time: Tuesday, January 31, 2012 14:01:26
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 47
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14028.509	0.00				ug/L
	Be	9	6.000	-0.00	-0.0296	0.006	18.884	ug/L
	Al	27	148318.406	0.75	30.0745	2.946	9.795	ug/L
>	Sc	45	193746.395	193746.39				ug/L
	Ti	49	773.447	0.00	1.5916	0.287	18.054	ug/L
	V	51	9501.549	0.02	0.9214	0.070	7.547	ug/L
	Cr	52	11299.771	0.01	0.6793	0.109	15.986	ug/L
	Cr	53	1920.413	0.00	1.8019	0.203	11.251	ug/L
	Mn	55	9468.817	0.02	0.8366	0.060	7.177	ug/L
	Co	59	833.050	0.00	0.0490	0.004	7.650	ug/L
	Ni	60	2947.219	0.01	1.7036	0.041	2.396	ug/L
	Cu	65	766.710	0.00	0.3444	0.019	5.537	ug/L
	Zn	66	5350.776	0.01	5.3622	0.080	1.487	ug/L
>	Ge	72	415999.287	415999.29				ug/L
	As	75	1144.063	0.00	1.2005	0.034	2.822	ug/L
	Se	77	102.667	0.00	0.4756	0.180	37.858	ug/L
	Se	82	437.946	0.00	4.2935	0.070	1.621	ug/L
	Rb	85	5052.919	0.01				mg/L
	Y	89	271607.283	-8319.08				ug/L
	Rh	103	69.668	60.33				ug/L
	Mo	98	1024.717	0.00	0.3759	0.013	3.413	ug/L
	Ag	107	79.001	0.00	-0.0146	0.001	9.073	ug/L
	Cd	114	22.192	0.00	0.0085	0.004	46.312	ug/L
>	In	115	386693.588	386693.59				ug/L
	Sn	118	465.080	0.00	0.0279	0.004	12.934	ug/L
	Sb	123	211.664	0.00	0.0521	0.007	13.048	ug/L
	Ba	135	30599.455	0.06	19.9480	0.279	1.401	ug/L
	Ce	140	1586.978	0.00				ug/L
>	Tb	159	544310.967	544310.97				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	95.335	0.00	0.0081	0.001	10.144	ug/L
	Tl	205	220.025	0.00	-0.0057	0.003	49.681	ug/L
	Pb	206	595.027	0.00	0.0499	0.004	8.121	ug/L
	Pb	207	521.688	0.00	0.0532	0.004	7.353	ug/L
	Pb	208	2342.152	0.00	0.0526	0.003	5.299	ug/L
	U	238	29148.027	0.07	0.8328	0.018	2.121	ug/L
>	Bi	209	419821.029	419821.03				ug/L

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Na	23	66925039.952	345.90	14.7348	1.231	8.353	mg/L
Mg	24	17266184.703	89.31	6.1925	0.580	9.367	mg/L
K	39	7287751.433	35.03	1.1581	0.116	10.015	mg/L
Ca	43	419446.388	2.17	32.9695	2.915	8.842	mg/L
Fe	54	98360.292	0.32	0.1115	0.015	13.617	mg/L
Fe	57	38044.160	0.16	0.1304	0.018	13.919	mg/L
Sc-1	45	193746.395	193746.39				mg/L
Cl	35	354652.247	325847.87				mg/L
Kr	83	46.667	-8.00				mg/L
Br	81	303935.153	296760.06				mg/L
P	31	15521.858	6925.41				mg/L
S	34	614808.269	435308.19				mg/L
Sr	88	2178583.804	2178527.13				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		97.762			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		99.043			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		104.029			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		100.442			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201068602
Report Date/Time: Tuesday, January 31, 2012 14:03:38
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Method 6020 - Summary Report

Sample ID: L1201068603

Sample Date/Time: Tuesday, January 31, 2012 14:09:12
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 48
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13544.396	0.01				ug/L
	Be	9	15.333	0.00	0.0033	0.009	260.530	ug/L
	Al	27	300971.970	1.66	66.5972	2.436	3.658	ug/L
>	Sc	45	179730.512	179730.51				ug/L
	Ti	49	2647.354	0.01	6.3008	0.523	8.297	ug/L
	V	51	11512.659	0.03	1.2957	0.124	9.581	ug/L
	Cr	52	14275.039	0.02	1.2779	0.061	4.760	ug/L
	Cr	53	2800.752	0.01	3.1460	0.207	6.569	ug/L
	Mn	55	28453.256	0.07	2.8179	0.148	5.241	ug/L
	Co	59	974.734	0.00	0.0764	0.010	12.592	ug/L
	Ni	60	3395.063	0.01	2.1342	0.188	8.810	ug/L
	Cu	65	1218.435	0.00	0.6845	0.013	1.864	ug/L
	Zn	66	2490.397	0.01	2.6323	0.111	4.230	ug/L
>	Ge	72	383862.538	383862.54				ug/L
	As	75	310.204	0.00	0.4415	0.032	7.207	ug/L
	Se	77	303.339	0.00	3.3192	0.226	6.815	ug/L
	Se	82	284.931	0.00	2.9934	0.011	0.353	ug/L
	Rb	85	2201.313	0.01				mg/L
	Y	89	256472.397	-23453.96				ug/L
	Rh	103	179.337	170.00				ug/L
	Mo	98	1619.110	0.00	0.6703	0.006	0.931	ug/L
	Ag	107	72.668	0.00	-0.0143	0.001	9.776	ug/L
	Cd	114	18.248	0.00	0.0069	0.006	82.787	ug/L
>	In	115	347896.013	347896.01				ug/L
	Sn	118	343.874	0.00	0.0083	0.003	39.579	ug/L
	Sb	123	131.079	0.00	0.0352	0.001	2.448	ug/L
	Ba	135	31037.535	0.06	21.8244	0.539	2.470	ug/L
	Ce	140	4341.570	0.01				ug/L
>	Tb	159	504492.200	504492.20				ug/L
	Ho	165	56.673	0.00				ug/L
	Tl	203	56.001	0.00	0.0028	0.002	77.023	ug/L
	Tl	205	100.011	0.00	-0.0129	0.001	7.517	ug/L
	Pb	206	747.041	0.00	0.0926	0.006	6.250	ug/L
	Pb	207	725.039	0.00	0.1092	0.027	24.770	ug/L
	Pb	208	3075.918	0.01	0.0991	0.006	6.445	ug/L
	U	238	7395.362	0.02	0.2144	0.005	2.153	ug/L
>	Bi	209	385988.270	385988.27				ug/L

Sample ID: L1201068603
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Na	23	76561624.591	428.40	18.2493	1.800	9.866	mg/L
Mg	24	45708084.680	255.20	17.7056	0.995	5.617	mg/L
K	39	8134153.655	42.71	1.4122	0.089	6.305	mg/L
Ca	43	881815.455	4.92	74.7591	3.985	5.331	mg/L
Fe	54	96378.819	0.35	0.1220	0.002	1.818	mg/L
Fe	57	55155.927	0.27	0.2249	0.006	2.492	mg/L
Sc-1	45	179730.512	179730.51				mg/L
Cl	35	888016.193	859211.82				mg/L
Kr	83	47.334	-7.33				mg/L
Br	81	78595.741	71420.65				mg/L
P	31	11961.398	3364.95				mg/L
S	34	1729928.401	1550428.32				mg/L
Sr	88	4749979.610	4749922.94				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		90.210			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		89.106			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.419			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		92.347			

Sample ID: L1201068603
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201068603
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Method 6020 - Summary Report

Sample ID: L1201071336

Sample Date/Time: Tuesday, January 31, 2012 14:16:58
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 49
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10940.581	0.00				ug/L
	Be	9	8.667	0.00	-0.0133	0.019	143.090	ug/L
	Al	27	12576.150	0.07	2.8464	0.156	5.494	ug/L
>	Sc	45	148767.916	148767.92				ug/L
	Ti	49	103.344	0.00	0.1281	0.021	16.020	ug/L
	V	51	2018.728	0.00	0.0156	0.006	37.544	ug/L
	Cr	52	6876.572	0.00	0.2148	0.044	20.467	ug/L
	Cr	53	936.815	0.00	0.8032	0.286	35.585	ug/L
	Mn	55	2589.762	0.01	0.2398	0.009	3.630	ug/L
	Co	59	63.668	0.00	-0.0436	0.002	4.969	ug/L
	Ni	60	134.002	0.00	0.0561	0.006	10.656	ug/L
	Cu	65	159.336	0.00	-0.0116	0.003	24.258	ug/L
	Zn	66	456.017	0.00	0.4054	0.056	13.727	ug/L
>	Ge	72	352418.984	352418.98				ug/L
	As	75	-62.688	0.00	0.0547	0.045	81.943	ug/L
	Se	77	45.333	-0.00	-0.1493	0.105	70.221	ug/L
	Se	82	9.565	0.00	0.0006	0.144	25573.104	ug/L
	Rb	85	99.002	0.00				mg/L
	Y	89	233019.326	-46907.03				ug/L
	Rh	103	11.000	1.67				ug/L
	Mo	98	29.644	0.00	0.0008	0.004	434.476	ug/L
	Ag	107	76.668	0.00	-0.0121	0.008	62.755	ug/L
	Cd	114	4.806	0.00	-0.0047	0.008	170.677	ug/L
>	In	115	319755.788	319755.79				ug/L
	Sn	118	274.805	0.00	-0.0034	0.002	69.067	ug/L
	Sb	123	95.994	0.00	0.0277	0.005	16.245	ug/L
	Ba	135	267.340	0.00	0.1807	0.025	13.988	ug/L
	Ce	140	96.677	0.00				ug/L
>	Tb	159	439743.843	439743.84				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	29.667	0.00	-0.0011	0.001	140.953	ug/L
	Tl	205	60.006	0.00	-0.0151	0.001	5.066	ug/L
	Pb	206	230.339	0.00	-0.0114	0.004	36.129	ug/L
	Pb	207	211.671	0.00	-0.0017	0.004	216.697	ug/L
	Pb	208	960.032	0.00	-0.0011	0.001	124.952	ug/L
	U	238	92.668	0.00	-0.0179	0.001	5.541	ug/L
>	Bi	209	340112.898	340112.90				ug/L

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Na	23	838723.496	5.42	0.2309	0.004	1.544	mg/L
Mg	24	66477.971	0.45	0.0256	0.002	7.218	mg/L
K	39	482388.262	0.58	0.0178	0.004	24.947	mg/L
Ca	43	560.075	0.00	0.0383	0.007	18.099	mg/L
Fe	54	51984.152	0.16	0.0525	0.010	19.908	mg/L
Fe	57	5889.338	-0.00	-0.0049	0.002	47.038	mg/L
Sc-1	45	148767.916	148767.92				mg/L
Cl	35	33103.623	4299.25				mg/L
Kr	83	50.001	-4.67				mg/L
Br	81	11250.924	4075.83				mg/L
P	31	10606.750	2010.31				mg/L
S	34	148937.881	-30562.20				mg/L
Sr	88	7003.642	6946.97				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		82.820			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		81.898			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		84.044			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		81.372			

Sample ID: L1201071336
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201071336
Report Date/Time: Tuesday, January 31, 2012 14:19:10
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201071338

Sample Date/Time: Tuesday, January 31, 2012 14:26:25
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 50
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10256.325	-0.00				ug/L
	Be	9	2.667	-0.00	-0.0376	0.012	32.511	ug/L
	Al	27	18854.665	0.11	4.6079	0.385	8.347	ug/L
>	Sc	45	146765.501	146765.50				ug/L
	Ti	49	120.013	0.00	0.2010	0.099	49.015	ug/L
	V	51	2001.432	0.00	0.0407	0.008	18.786	ug/L
	Cr	52	6568.320	0.00	0.2653	0.019	7.134	ug/L
	Cr	53	790.117	0.00	0.6996	0.088	12.609	ug/L
	Mn	55	4091.379	0.01	0.4457	0.013	2.922	ug/L
	Co	59	74.668	0.00	-0.0410	0.001	1.508	ug/L
	Ni	60	250.340	0.00	0.1534	0.011	7.208	ug/L
	Cu	65	153.670	0.00	-0.0054	0.006	101.571	ug/L
	Zn	66	1524.488	0.00	1.8759	0.029	1.530	ug/L
>	Ge	72	322632.565	322632.56				ug/L
	As	75	-44.695	0.00	0.0704	0.057	81.368	ug/L
	Se	77	66.000	0.00	0.2484	0.146	58.772	ug/L
	Se	82	12.893	0.00	0.0552	0.172	312.545	ug/L
	Rb	85	83.668	0.00				mg/L
	Y	89	212658.115	-67268.24				ug/L
	Rh	103	7.000	-2.33				ug/L
	Mo	98	21.827	0.00	-0.0020	0.001	31.317	ug/L
	Ag	107	60.334	0.00	-0.0148	0.003	17.042	ug/L
	Cd	114	-6.015	-0.00	-0.0157	0.009	55.641	ug/L
>	In	115	298729.066	298729.07				ug/L
	Sn	118	3844.754	0.01	1.0910	0.001	0.103	ug/L
	Sb	123	84.577	0.00	0.0260	0.002	7.276	ug/L
	Ba	135	175.670	0.00	0.1171	0.006	5.382	ug/L
	Ce	140	120.013	0.00				ug/L
>	Tb	159	408804.203	408804.20				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	24.667	0.00	-0.0016	0.001	61.814	ug/L
	Tl	205	76.675	0.00	-0.0134	0.005	33.717	ug/L
	Pb	206	230.339	0.00	-0.0063	0.001	15.976	ug/L
	Pb	207	206.338	0.00	0.0018	0.002	129.930	ug/L
	Pb	208	949.031	0.00	0.0031	0.001	37.872	ug/L
	U	238	41.334	0.00	-0.0197	0.000	1.969	ug/L
>	Bi	209	312265.213	312265.21				ug/L

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Na	23	61730.659	0.21	0.0085	0.001	7.767	mg/L
Mg	24	23876.582	0.16	0.0059	0.000	8.383	mg/L
K	39	435479.215	0.30	0.0087	0.004	46.654	mg/L
Ca	43	370.045	0.00	0.0195	0.004	19.100	mg/L
Fe	54	49014.457	0.15	0.0464	0.004	8.123	mg/L
Fe	57	6142.884	0.00	-0.0030	0.002	51.256	mg/L
Sc-1	45	146765.501	146765.50				mg/L
Cl	35	24106.824	-4697.55				mg/L
Kr	83	50.667	-4.00				mg/L
Br	81	7489.365	314.27				mg/L
P	31	9175.061	578.62				mg/L
S	34	140120.263	-39379.81				mg/L
Sr	88	1060.174	1003.50				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		75.820			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		76.513			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		78.131			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		74.709			

Sample ID: L1201071338
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201071338
Report Date/Time: Tuesday, January 31, 2012 14:28:37
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201068505

Sample Date/Time: Tuesday, January 31, 2012 14:34:11
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 51
Method File: C:\elandata\Method\6020a.mth
Sample Description: 10

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10423.190	0.01				ug/L
	Be	9	37.333	0.00	0.1187	0.013	11.288	ug/L
	Al	27	4571581.495	33.30	1331.9835	61.868	4.645	ug/L
>	Sc	45	137340.185	137340.18				ug/L
	Ti	49	606.750	0.00	1.6448	0.193	11.746	ug/L
	V	51	17758.357	0.05	2.6742	0.065	2.422	ug/L
	Cr	52	15509.575	0.03	1.9893	0.027	1.358	ug/L
	Cr	53	1977.100	0.01	2.6168	0.255	9.761	ug/L
	Mn	55	1356510.330	4.29	165.5018	1.691	1.022	ug/L
	Co	59	13300.075	0.04	2.0855	0.043	2.084	ug/L
	Ni	60	4894.153	0.02	3.7608	0.092	2.448	ug/L
	Cu	65	4175.754	0.01	3.2476	0.056	1.734	ug/L
	Zn	66	9195.830	0.03	12.2977	0.042	0.344	ug/L
>	Ge	72	316519.382	316519.38				ug/L
	As	75	750.631	0.00	1.0535	0.042	3.997	ug/L
	Se	77	57.334	0.00	0.1254	0.074	59.349	ug/L
	Se	82	-4.525	-0.00	-0.1717	0.152	88.764	ug/L
	Rb	85	14082.363	0.04				mg/L
	Y	89	224335.006	-55591.35				ug/L
	Rh	103	9.667	0.33				ug/L
	Mo	98	168.126	0.00	0.0725	0.005	6.724	ug/L
	Ag	107	82.335	0.00	-0.0088	0.002	21.903	ug/L
	Cd	114	22.039	0.00	0.0143	0.012	85.034	ug/L
>	In	115	289398.200	289398.20				ug/L
	Sn	118	223.870	0.00	-0.0112	0.000	2.876	ug/L
	Sb	123	75.950	0.00	0.0240	0.004	16.582	ug/L
	Ba	135	45200.042	0.11	40.3650	0.175	0.434	ug/L
	Ce	140	60783.799	0.15				ug/L
>	Tb	159	397806.081	397806.08				ug/L
	Ho	165	1463.610	0.00				ug/L
	Tl	203	119.669	0.00	0.0187	0.000	2.563	ug/L
	Tl	205	306.703	0.00	0.0068	0.004	60.968	ug/L
	Pb	206	8748.344	0.03	2.2868	0.007	0.311	ug/L
	Pb	207	7391.018	0.02	2.0668	0.041	1.961	ug/L
	Pb	208	34959.448	0.11	2.1599	0.010	0.455	ug/L
	U	238	2887.863	0.01	0.0944	0.000	0.025	ug/L
>	Bi	209	307213.655	307213.66				ug/L

Sample ID: L1201068505
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Na	23	118049.102	0.64	0.0272	0.000	1.141	mg/L
Mg	24	635517.702	4.63	0.3158	0.006	2.032	mg/L
K	39	900525.357	3.89	0.1276	0.008	6.660	mg/L
Ca	43	3451.061	0.02	0.3637	0.033	8.991	mg/L
Fe	54	1473211.363	10.55	3.9333	0.205	5.219	mg/L
Fe	57	602410.995	4.35	3.7416	0.100	2.665	mg/L
Sc-1	45	137340.185	137340.18				mg/L
Cl	35	22363.304	-6441.07				mg/L
Kr	83	60.334	5.67				mg/L
Br	81	6426.477	-748.61				mg/L
P	31	31744.356	23147.91				mg/L
S	34	127841.215	-51658.86				mg/L
Sr	88	20213.171	20156.50				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		74.384			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		74.123			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		76.029			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		73.500			

Sample ID: L1201068505
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

Sample ID: L1201068505
Report Date/Time: Tuesday, January 31, 2012 14:36:23
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, January 31, 2012 14:41:58
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 5
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10540.005	0.01				ug/L
	Be	9	11152.125	0.08	49.4669	2.648	5.353	ug/L
	Al	27	167925.105	1.20	47.9979	2.447	5.097	ug/L
>	Sc	45	138628.808	138628.81				ug/L
	Ti	49	34216.869	0.11	101.2422	2.162	2.136	ug/L
	V	51	300862.635	0.95	50.0273	0.617	1.234	ug/L
	Cr	52	261166.146	0.81	48.8619	0.699	1.430	ug/L
	Cr	53	32145.131	0.10	50.8807	1.854	3.645	ug/L
	Mn	55	406019.790	1.29	49.6616	0.795	1.601	ug/L
	Co	59	310695.653	0.98	50.0575	0.435	0.870	ug/L
	Ni	60	63309.557	0.20	49.2553	0.758	1.539	ug/L
	Cu	65	63116.442	0.20	51.0415	0.862	1.689	ug/L
	Zn	66	37656.934	0.12	50.9802	0.505	0.991	ug/L
>	Ge	72	315531.527	315531.53				ug/L
	As	75	41102.668	0.13	51.1502	1.818	3.554	ug/L
	Se	77	3005.209	0.01	49.1354	2.438	4.963	ug/L
	Se	82	3720.069	0.01	49.2056	0.329	0.668	ug/L
	Rb	85	1499.483	0.00				mg/L
	Y	89	203764.577	-76161.78				ug/L
	Rh	103	18.334	9.00				ug/L
	Mo	98	196300.134	0.68	99.3928	2.630	2.646	ug/L
	Ag	107	201640.879	0.70	50.3113	1.259	2.503	ug/L
	Cd	114	45954.138	0.16	49.5405	1.201	2.425	ug/L
>	In	115	289802.707	289802.71				ug/L
	Sn	118	159866.375	0.55	50.1926	0.940	1.873	ug/L
	Sb	123	153072.084	0.53	52.0429	1.521	2.922	ug/L
	Ba	135	55400.094	0.14	50.3276	0.450	0.895	ug/L
	Ce	140	90.009	0.00				ug/L
>	Tb	159	391135.416	391135.42				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	229968.558	0.76	49.5886	1.841	3.713	ug/L
	Tl	205	559119.223	1.84	49.2175	2.605	5.293	ug/L
	Pb	206	187067.875	0.62	50.8636	1.342	2.638	ug/L
	Pb	207	173742.914	0.57	50.4508	0.702	1.391	ug/L
	Pb	208	780263.248	2.57	49.9862	0.393	0.787	ug/L
	U	238	1269465.905	4.18	51.4291	0.909	1.768	ug/L
>	Bi	209	303645.379	303645.38				ug/L

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Na	23	15068493.978	108.65	4.6281	0.217	4.684	mg/L
Mg	24	9710205.099	70.14	4.8626	0.239	4.908	mg/L
K	39	21998088.572	156.24	5.1693	0.237	4.587	mg/L
Ca	43	45250.402	0.33	4.9485	0.167	3.380	mg/L
Fe	54	1866680.394	13.30	4.9608	0.296	5.974	mg/L
Fe	57	823669.310	5.92	5.0910	0.369	7.245	mg/L
Sc-1	45	138628.808	138628.81				mg/L
Cl	35	21690.191	-7114.18				mg/L
Kr	83	56.334	1.67				mg/L
Br	81	5333.708	-1841.38				mg/L
P	31	4942.807	-3653.64				mg/L
S	34	129040.252	-50459.82				mg/L
Sr	88	3270.969	3214.30				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	100.055				
Cr	52	97.724				
Cr	53					
Mn	55	99.323				
Co	59	100.115				
Ni	60	98.511				
Cu	65	102.083				
Zn	66	101.960				
Ge	72		74.151			
As	75	102.300				
Se	77					
Se	82	98.411				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	100.623				
Cd	114	99.081				
In	115		74.227			
Sn	118					
Sb	123	104.086				
Ba	135	100.655				
Ce	140					
Tb	159		74.754			
Ho	165					
Tl	203	99.177				
Tl	205					
Pb	206					
Pb	207					
Pb	208	99.972				
U	238	102.858				
Bi	209		72.647			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ge 72 Int Std for QC S	Ge	72	Rerun for AFCEE QC
In 115 Int Std for QC S	In	115	Rerun for AFCEE QC
Tb 159 Int Std for QC	Tb	159	Rerun for AFCEE QC
Bi 209 Int Std for QC S	Bi	209	Rerun for AFCee QC

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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, January 31, 2012 14:49:35
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10673.528	0.01				ug/L
	Be	9	5.333	-0.00	-0.0252	0.018	73.237	ug/L
	Al	27	3150.596	0.01	0.3577	0.035	9.706	ug/L
>	Sc	45	140440.755	140440.75				ug/L
	Ti	49	56.673	0.00	0.0090	0.052	570.234	ug/L
	V	51	1663.827	-0.00	-0.0270	0.008	30.059	ug/L
	Cr	52	5419.818	0.00	0.0043	0.017	404.997	ug/L
	Cr	53	656.758	0.00	0.4458	0.102	22.946	ug/L
	Mn	55	230.005	0.00	-0.0178	0.001	7.499	ug/L
	Co	59	63.334	0.00	-0.0432	0.001	1.708	ug/L
	Ni	60	29.667	0.00	-0.0158	0.002	10.836	ug/L
	Cu	65	135.002	0.00	-0.0250	0.014	57.807	ug/L
	Zn	66	77.334	0.00	-0.0505	0.007	14.637	ug/L
>	Ge	72	338344.077	338344.08				ug/L
	As	75	-114.268	0.00	-0.0086	0.049	570.657	ug/L
	Se	77	54.667	-0.00	0.0199	0.077	388.301	ug/L
	Se	82	4.212	0.00	-0.0598	0.100	166.615	ug/L
	Rb	85	24.667	0.00				mg/L
	Y	89	214408.222	-65518.14				ug/L
	Rh	103	12.333	3.00				ug/L
	Mo	98	50.713	0.00	0.0116	0.007	56.614	ug/L
	Ag	107	72.334	0.00	-0.0123	0.001	10.881	ug/L
	Cd	114	3.347	0.00	-0.0059	0.007	118.531	ug/L
>	In	115	306437.586	306437.59				ug/L
	Sn	118	265.071	0.00	-0.0029	0.001	24.568	ug/L
	Sb	123	40.868	0.00	0.0112	0.000	0.602	ug/L
	Ba	135	38.667	0.00	-0.0022	0.004	167.887	ug/L
	Ce	140	26.669	-0.00				ug/L
>	Tb	159	412031.979	412031.98				ug/L
	Ho	165	3.334	-0.00				ug/L
	Tl	203	43.001	0.00	0.0020	0.001	69.050	ug/L
	Tl	205	93.343	0.00	-0.0120	0.002	16.092	ug/L
	Pb	206	214.338	0.00	-0.0121	0.006	51.086	ug/L
	Pb	207	188.671	0.00	-0.0049	0.006	119.360	ug/L
	Pb	208	848.025	0.00	-0.0047	0.001	31.114	ug/L
	U	238	106.668	0.00	-0.0172	0.001	4.322	ug/L
>	Bi	209	321399.757	321399.76				ug/L

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Na	23	31047.572	0.01	0.0000	0.000	2518.372	mg/L
Mg	24	836.794	0.00	-0.0050	0.000	2.160	mg/L
K	39	425589.511	0.36	0.0108	0.004	33.345	mg/L
Ca	43	126.680	0.00	-0.0052	0.003	63.820	mg/L
Fe	54	28127.810	0.01	-0.0035	0.003	89.593	mg/L
Fe	57	5328.903	-0.00	-0.0064	0.001	19.991	mg/L
Sc-1	45	140440.755	140440.75				mg/L
Cl	35	20937.604	-7866.77				mg/L
Kr	83	52.334	-2.33				mg/L
Br	81	5680.609	-1494.48				mg/L
P	31	5289.690	-3306.75				mg/L
S	34	128218.791	-51281.29				mg/L
Sr	88	56.673	0.00				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		79.512			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		78.487			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		78.748			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		76.894			

Sample ID: QC Std 7
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ge 72 Int Std for QC S	Ge	72	Rerun for AFCEE QC
In 115 Int Std for QC S	In	115	Rerun for AFCEE QC
Tb 159 Int Std for QC	Tb	159	Rerun for AFCEE QC
Bi 209 Int Std for QC S	Bi	209	Rerun for AFCee QC

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, January 31, 2012 14:57:13
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 9
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11741.678	0.00				ug/L
	Be	9	4.667	-0.00	-0.0306	0.019	63.161	ug/L
	Al	27	3417.375	0.01	0.3227	0.121	37.508	ug/L
>	Sc	45	158611.969	158611.97				ug/L
	Ti	49	56.673	0.00	-0.0025	0.082	3236.545	ug/L
	V	51	4759.504	0.01	0.3939	0.016	4.101	ug/L
	Cr	52	10892.557	0.01	0.8168	0.016	1.906	ug/L
	Cr	53	1233.548	0.00	1.1500	0.108	9.409	ug/L
	Mn	55	5317.750	0.01	0.5127	0.014	2.665	ug/L
	Co	59	3163.632	0.01	0.3837	0.019	4.997	ug/L
	Ni	60	2588.761	0.01	1.6867	0.056	3.317	ug/L
	Cu	65	1292.780	0.00	0.7690	0.026	3.409	ug/L
	Zn	66	5771.390	0.02	6.5537	0.198	3.015	ug/L
>	Ge	72	368972.572	368972.57				ug/L
	As	75	272.580	0.00	0.4144	0.036	8.617	ug/L
	Se	77	80.000	0.00	0.3133	0.331	105.659	ug/L
	Se	82	43.192	0.00	0.3792	0.120	31.641	ug/L
	Rb	85	28.667	0.00				mg/L
	Y	89	243064.959	-36861.40				ug/L
	Rh	103	8.333	-1.00				ug/L
	Mo	98	38.603	0.00	0.0041	0.001	25.265	ug/L
	Ag	107	2055.607	0.01	0.4123	0.006	1.498	ug/L
	Cd	114	241.495	0.00	0.2147	0.006	2.768	ug/L
>	In	115	336587.522	336587.52				ug/L
	Sn	118	260.271	0.00	-0.0113	0.004	38.966	ug/L
	Sb	123	1485.767	0.00	0.4329	0.004	0.924	ug/L
	Ba	135	1000.403	0.00	0.7572	0.034	4.541	ug/L
	Ce	140	30.003	-0.00				ug/L
>	Tb	159	448750.337	448750.34				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	499.020	0.00	0.0857	0.002	1.829	ug/L
	Tl	205	1113.519	0.00	0.0644	0.003	4.766	ug/L
	Pb	206	2059.608	0.01	0.4144	0.004	1.032	ug/L
	Pb	207	1886.232	0.00	0.4145	0.006	1.490	ug/L
	Pb	208	8539.819	0.02	0.4145	0.001	0.257	ug/L
	U	238	12155.648	0.03	0.4019	0.007	1.733	ug/L
>	Bi	209	353432.491	353432.49				ug/L

Sample ID: QC Std 8
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Na	23	30545.648	-0.02	-0.0012	0.000	20.710	mg/L
Mg	24	353.377	0.00	-0.0053	0.000	0.798	mg/L
K	39	434148.278	0.07	0.0010	0.000	13.878	mg/L
Ca	43	153.350	0.00	-0.0042	0.005	115.000	mg/L
Fe	54	28876.593	-0.01	-0.0103	0.005	44.827	mg/L
Fe	57	5825.952	-0.00	-0.0074	0.000	4.025	mg/L
Sc-1	45	158611.969	158611.97				mg/L
Cl	35	22003.704	-6800.67				mg/L
Kr	83	54.667	0.00				mg/L
Br	81	6369.100	-805.99				mg/L
P	31	6120.916	-2475.53				mg/L
S	34	142859.956	-36640.12				mg/L
Sr	88	80.008	23.34				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	98.474				
Cr	52	102.103				
Cr	53					
Mn	55	102.535				
Co	59	95.924				
Ni	60	105.419				
Cu	65	96.123				
Zn	66	104.859				
Ge	72		86.710			
As	75	103.588				
Se	77					
Se	82	94.802				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	103.076				
Cd	114	107.357				
In	115		86.210			
Sn	118					
Sb	123	108.228				
Ba	135	100.955				
Ce	140					
Tb	159		85.765			
Ho	165					
Tl	203	107.084				
Tl	205					
Pb	206					
Pb	207					
Pb	208	103.618				
U	238	100.484				
Bi	209		84.558			

Sample ID: QC Std 8
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 8
Report Date/Time: Tuesday, January 31, 2012 14:59:27
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, January 31, 2012 15:04:52
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 5
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12008.702	-0.00				ug/L
	Be	9	13581.066	0.08	48.6544	2.680	5.507	ug/L
	Al	27	210990.839	1.22	48.7691	4.030	8.263	ug/L
>	Sc	45	171549.750	171549.75				ug/L
	Ti	49	44037.225	0.11	104.3081	2.783	2.668	ug/L
	V	51	373773.872	0.94	49.7616	0.852	1.712	ug/L
	Cr	52	323923.057	0.81	48.5159	0.483	0.995	ug/L
	Cr	53	38033.740	0.10	48.1692	0.300	0.622	ug/L
	Mn	55	501944.304	1.27	49.1522	0.522	1.062	ug/L
	Co	59	384422.145	0.98	49.5950	0.688	1.387	ug/L
	Ni	60	78853.126	0.20	49.1204	0.430	0.874	ug/L
	Cu	65	75221.435	0.19	48.7013	0.735	1.510	ug/L
	Zn	66	46735.494	0.12	50.6634	0.830	1.639	ug/L
>	Ge	72	394082.059	394082.06				ug/L
	As	75	49119.349	0.13	48.9436	0.623	1.272	ug/L
	Se	77	3923.590	0.01	51.4160	1.641	3.191	ug/L
	Se	82	4587.503	0.01	48.5943	1.548	3.186	ug/L
	Rb	85	1849.224	0.00				mg/L
	Y	89	252008.610	-27917.75				ug/L
	Rh	103	24.667	15.33				ug/L
	Mo	98	240647.569	0.68	99.3504	2.951	2.970	ug/L
	Ag	107	247532.715	0.70	50.3637	2.024	4.019	ug/L
	Cd	114	55005.314	0.15	48.3506	1.255	2.596	ug/L
>	In	115	355429.782	355429.78				ug/L
	Sn	118	195024.939	0.55	49.9235	0.828	1.658	ug/L
	Sb	123	178687.865	0.50	49.5230	0.303	0.612	ug/L
	Ba	135	67408.891	0.14	49.6701	0.732	1.475	ug/L
	Ce	140	86.676	0.00				ug/L
>	Tb	159	482229.845	482229.84				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	282145.873	0.77	50.0964	0.892	1.780	ug/L
	Tl	205	704638.219	1.91	51.0724	0.670	1.313	ug/L
	Pb	206	227756.452	0.62	50.9905	0.433	0.850	ug/L
	Pb	207	214654.944	0.58	51.3213	0.532	1.036	ug/L
	Pb	208	955595.082	2.59	50.4080	0.513	1.017	ug/L
	U	238	1551122.113	4.21	51.7318	0.608	1.175	ug/L
>	Bi	209	368791.411	368791.41				ug/L

Sample ID: QC Std 6
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Na	23	20062348.068	116.90	4.9797	0.298	5.980	mg/L
Mg	24	12340760.591	72.06	4.9957	0.336	6.727	mg/L
K	39	26259391.906	150.65	4.9844	0.332	6.653	mg/L
Ca	43	55952.810	0.33	4.9465	0.264	5.339	mg/L
Fe	54	2344031.913	13.51	5.0378	0.453	8.986	mg/L
Fe	57	1020813.956	5.92	5.0924	0.244	4.796	mg/L
Sc-1	45	171549.750	171549.75				mg/L
Cl	35	24135.574	-4668.80				mg/L
Kr	83	58.001	3.33				mg/L
Br	81	7075.009	-100.08				mg/L
P	31	7123.718	-1472.73				mg/L
S	34	153553.800	-25946.28				mg/L
Sr	88	3991.355	3934.68				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	99.523				
Cr	52	97.032				
Cr	53					
Mn	55	98.304				
Co	59	99.190				
Ni	60	98.241				
Cu	65	97.403				
Zn	66	101.327				
Ge	72		92.611			
As	75	97.887				
Se	77					
Se	82	97.189				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	100.727				
Cd	114	96.701				
In	115		91.036			
Sn	118					
Sb	123	99.046				
Ba	135	99.340				
Ce	140					
Tb	159		92.164			
Ho	165					
Tl	203	100.193				
Tl	205					
Pb	206					
Pb	207					
Pb	208	100.816				
U	238	103.464				
Bi	209		88.233			

Sample ID: QC Std 6
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Tuesday, January 31, 2012 15:07:05
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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, January 31, 2012 15:12:28
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11307.743	0.00				ug/L
	Be	9	4.000	-0.00	-0.0329	0.008	23.026	ug/L
	Al	27	2467.049	0.00	0.0935	0.164	175.779	ug/L
>	Sc	45	155776.385	155776.38				ug/L
	Ti	49	60.006	0.00	0.0043	0.066	1538.182	ug/L
	V	51	1990.859	0.00	-0.0039	0.003	80.544	ug/L
	Cr	52	6226.054	0.00	0.0487	0.010	21.391	ug/L
	Cr	53	590.080	0.00	0.2658	0.096	36.167	ug/L
	Mn	55	266.340	0.00	-0.0164	0.002	9.749	ug/L
	Co	59	69.668	0.00	-0.0432	0.001	1.453	ug/L
	Ni	60	37.334	0.00	-0.0126	0.004	28.902	ug/L
	Cu	65	140.336	0.00	-0.0306	0.006	21.045	ug/L
	Zn	66	79.668	-0.00	-0.0564	0.005	8.613	ug/L
>	Ge	72	371459.366	371459.37				ug/L
	As	75	-101.968	0.00	0.0174	0.010	57.658	ug/L
	Se	77	70.000	0.00	0.1634	0.149	91.279	ug/L
	Se	82	15.609	0.00	0.0647	0.014	21.258	ug/L
	Rb	85	28.667	0.00				mg/L
	Y	89	237843.904	-42082.45				ug/L
	Rh	103	13.333	4.00				ug/L
	Mo	98	65.978	0.00	0.0160	0.001	6.791	ug/L
	Ag	107	74.334	0.00	-0.0134	0.002	14.612	ug/L
	Cd	114	6.572	0.00	-0.0033	0.001	22.924	ug/L
>	In	115	335940.070	335940.07				ug/L
	Sn	118	296.805	0.00	-0.0012	0.003	212.703	ug/L
	Sb	123	31.865	0.00	0.0075	0.001	8.975	ug/L
	Ba	135	46.334	0.00	0.0008	0.004	513.789	ug/L
	Ce	140	33.337	-0.00				ug/L
>	Tb	159	451233.199	451233.20				ug/L
	Ho	165	0.000	-0.00				ug/L
	Tl	203	49.667	0.00	0.0025	0.000	14.489	ug/L
	Tl	205	83.342	0.00	-0.0135	0.002	17.580	ug/L
	Pb	206	231.672	0.00	-0.0125	0.005	43.107	ug/L
	Pb	207	220.005	0.00	-0.0011	0.005	406.275	ug/L
	Pb	208	950.364	0.00	-0.0032	0.001	35.506	ug/L
	U	238	131.669	0.00	-0.0167	0.001	3.511	ug/L
>	Bi	209	349852.724	349852.72				ug/L

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Na	23	32275.667	-0.01	-0.0006	0.001	91.010	mg/L
Mg	24	1003.494	0.00	-0.0050	0.000	0.517	mg/L
K	39	430503.575	0.09	0.0019	0.002	80.803	mg/L
Ca	43	183.354	0.00	-0.0010	0.004	371.448	mg/L
Fe	54	32387.824	0.02	-0.0007	0.003	391.531	mg/L
Fe	57	5982.754	-0.00	-0.0060	0.003	42.666	mg/L
Sc-1	45	155776.385	155776.38				mg/L
Cl	35	22402.751	-6401.62				mg/L
Kr	83	45.001	-9.67				mg/L
Br	81	6602.615	-572.48				mg/L
P	31	6553.914	-2042.53				mg/L
S	34	136595.107	-42904.97				mg/L
Sr	88	46.671	-10.00				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		87.295			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		86.044			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		86.240			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		83.702			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1201068509

Sample Date/Time: Tuesday, January 31, 2012 15:21:15
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 45
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12759.826	-0.00				ug/L
	Be	9	10.667	0.00	-0.0124	0.005	37.365	ug/L
	Al	27	12609.535	0.05	2.2376	0.107	4.790	ug/L
>	Sc	45	181710.378	181710.38				ug/L
	Ti	49	100.011	0.00	0.0789	0.114	145.160	ug/L
	V	51	2243.198	0.00	0.0003	0.027	8624.284	ug/L
	Cr	52	8386.973	0.00	0.2629	0.023	8.714	ug/L
	Cr	53	743.441	0.00	0.3745	0.128	34.268	ug/L
	Mn	55	4864.804	0.01	0.4111	0.013	3.066	ug/L
	Co	59	91.335	0.00	-0.0415	0.001	1.807	ug/L
	Ni	60	184.337	0.00	0.0725	0.005	7.020	ug/L
	Cu	65	322.343	0.00	0.0725	0.014	19.840	ug/L
	Zn	66	481.019	0.00	0.3516	0.034	9.681	ug/L
>	Ge	72	412648.555	412648.55				ug/L
	As	75	-133.469	0.00	-0.0020	0.025	1232.060	ug/L
	Se	77	72.667	0.00	0.0995	0.074	74.150	ug/L
	Se	82	-1.829	-0.00	-0.1294	0.083	64.157	ug/L
	Rb	85	77.334	0.00				mg/L
	Y	89	277310.415	-2615.94				ug/L
	Rh	103	10.667	1.33				ug/L
	Mo	98	143.053	0.00	0.0432	0.005	11.380	ug/L
	Ag	107	73.668	0.00	-0.0152	0.002	11.654	ug/L
	Cd	114	0.369	-0.00	-0.0094	0.009	90.909	ug/L
>	In	115	376064.135	376064.14				ug/L
	Sn	118	1560.146	0.00	0.2966	0.011	3.660	ug/L
	Sb	123	80.369	0.00	0.0193	0.005	24.536	ug/L
	Ba	135	88.668	0.00	0.0262	0.012	45.031	ug/L
	Ce	140	116.679	0.00				ug/L
>	Tb	159	511108.840	511108.84				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	30.000	0.00	-0.0017	0.001	66.436	ug/L
	Tl	205	53.339	-0.00	-0.0162	0.001	6.398	ug/L
	Pb	206	264.007	0.00	-0.0111	0.001	5.081	ug/L
	Pb	207	239.339	0.00	-0.0022	0.004	169.704	ug/L
	Pb	208	1100.373	0.00	-0.0008	0.002	251.049	ug/L
	U	238	29.000	-0.00	-0.0204	0.000	1.211	ug/L
>	Bi	209	388117.843	388117.84				ug/L

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Na	23	165551.452	0.70	0.0294	0.001	3.202	mg/L
Mg	24	12697.606	0.07	-0.0006	0.000	38.674	mg/L
K	39	464479.488	-0.11	-0.0050	0.001	29.062	mg/L
Ca	43	346.709	0.00	0.0102	0.004	43.905	mg/L
Fe	54	71329.799	0.20	0.0684	0.006	8.566	mg/L
Fe	57	9042.483	0.01	0.0038	0.003	83.808	mg/L
Sc-1	45	181710.378	181710.38				mg/L
Cl	35	27256.520	-1547.86				mg/L
Kr	83	57.001	2.33				mg/L
Br	81	7829.678	654.59				mg/L
P	31	13634.504	5038.06				mg/L
S	34	159477.767	-20022.31				mg/L
Sr	88	700.100	643.43				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		96.974			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		96.321			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		97.683			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		92.857			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201068509
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Method 6020 - Summary Report

Sample ID: L1201068601

Sample Date/Time: Tuesday, January 31, 2012 15:29:03
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 46
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12292.435	0.00				ug/L
	Be	9	6.667	-0.00	-0.0244	0.015	59.419	ug/L
	Al	27	66313.517	0.38	15.3563	0.745	4.849	ug/L
>	Sc	45	166890.100	166890.10				ug/L
	Ti	49	610.083	0.00	1.4567	0.226	15.505	ug/L
	V	51	16246.882	0.04	2.1171	0.102	4.835	ug/L
	Cr	52	17894.388	0.03	2.0574	0.075	3.625	ug/L
	Cr	53	2133.821	0.00	2.4877	0.318	12.796	ug/L
	Mn	55	8149.066	0.02	0.8379	0.022	2.654	ug/L
	Co	59	466.351	0.00	0.0137	0.001	3.921	ug/L
	Ni	60	1814.883	0.00	1.2107	0.018	1.500	ug/L
	Cu	65	775.711	0.00	0.4285	0.011	2.486	ug/L
	Zn	66	2780.492	0.01	3.1888	0.119	3.742	ug/L
>	Ge	72	357218.233	357218.23				ug/L
	As	75	3594.219	0.01	4.0682	0.103	2.529	ug/L
	Se	77	114.667	0.00	0.8700	0.309	35.511	ug/L
	Se	82	1266.351	0.00	14.7310	0.381	2.588	ug/L
	Rb	85	6886.583	0.02				mg/L
	Y	89	242224.921	-37701.44				ug/L
	Rh	103	61.668	52.33				ug/L
	Mo	98	3036.150	0.01	1.3458	0.034	2.490	ug/L
	Ag	107	59.001	-0.00	-0.0164	0.002	10.338	ug/L
	Cd	114	15.071	0.00	0.0052	0.010	200.528	ug/L
>	In	115	328024.765	328024.76				ug/L
	Sn	118	481.747	0.00	0.0521	0.001	1.478	ug/L
	Sb	123	201.874	0.00	0.0586	0.007	11.847	ug/L
	Ba	135	52619.819	0.11	40.7227	0.560	1.376	ug/L
	Ce	140	1013.496	0.00				ug/L
>	Tb	159	459151.936	459151.94				ug/L
	Ho	165	30.003	0.00				ug/L
	Tl	203	63.001	0.00	0.0047	0.001	21.526	ug/L
	Tl	205	166.685	0.00	-0.0074	0.003	44.377	ug/L
	Pb	206	434.016	0.00	0.0329	0.004	13.365	ug/L
	Pb	207	367.678	0.00	0.0339	0.003	10.260	ug/L
	Pb	208	1706.086	0.00	0.0366	0.002	4.768	ug/L
	U	238	23957.370	0.07	0.8007	0.022	2.789	ug/L
>	Bi	209	358443.517	358443.52				ug/L

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Na	23	46981067.489	281.45	11.9891	0.231	1.924	mg/L
Mg	24	11665247.403	69.84	4.8415	0.155	3.193	mg/L
K	39	6988155.027	39.23	1.2970	0.034	2.610	mg/L
Ca	43	338098.780	2.03	30.8208	1.462	4.745	mg/L
Fe	54	87911.016	0.34	0.1184	0.001	0.696	mg/L
Fe	57	33202.745	0.16	0.1323	0.004	2.654	mg/L
Sc-1	45	166890.100	166890.10				mg/L
Cl	35	334353.980	305549.60				mg/L
Kr	83	49.667	-5.00				mg/L
Br	81	1034217.379	1027042.29				mg/L
P	31	14110.639	5514.19				mg/L
S	34	492029.325	312529.25				mg/L
Sr	88	1961235.190	1961178.52				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		83.948			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		84.016			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		87.753			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		85.757			

Sample ID: L1201068601
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201068601
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Method 6020 - Summary Report

Sample ID: L1201068602

Sample Date/Time: Tuesday, January 31, 2012 15:36:50
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 47
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	15497.753	0.01				ug/L
	Be	9	8.000	0.00	-0.0227	0.001	4.402	ug/L
	Al	27	108877.608	0.56	22.4368	3.075	13.704	ug/L
>	Sc	45	190180.976	190180.98				ug/L
	Ti	49	703.434	0.00	1.5033	0.259	17.251	ug/L
	V	51	10078.800	0.02	1.0448	0.025	2.427	ug/L
	Cr	52	13649.306	0.02	1.0973	0.077	6.986	ug/L
	Cr	53	1630.323	0.00	1.5236	0.139	9.094	ug/L
	Mn	55	9313.298	0.02	0.8562	0.012	1.434	ug/L
	Co	59	784.378	0.00	0.0472	0.006	13.064	ug/L
	Ni	60	2583.760	0.01	1.5508	0.042	2.710	ug/L
	Cu	65	715.705	0.00	0.3309	0.003	1.008	ug/L
	Zn	66	5233.697	0.01	5.4629	0.165	3.015	ug/L
>	Ge	72	399553.611	399553.61				ug/L
	As	75	3235.104	0.01	3.2970	0.059	1.794	ug/L
	Se	77	127.334	0.00	0.8489	0.164	19.358	ug/L
	Se	82	1216.058	0.00	12.6222	0.166	1.317	ug/L
	Rb	85	5035.573	0.01				mg/L
	Y	89	271946.956	-7979.40				ug/L
	Rh	103	66.668	57.33				ug/L
	Mo	98	978.821	0.00	0.3868	0.002	0.600	ug/L
	Ag	107	64.001	-0.00	-0.0165	0.001	8.851	ug/L
	Cd	114	13.043	0.00	0.0019	0.005	244.186	ug/L
>	In	115	359412.223	359412.22				ug/L
	Sn	118	406.410	0.00	0.0213	0.005	22.023	ug/L
	Sb	123	118.953	0.00	0.0307	0.003	10.220	ug/L
	Ba	135	28614.685	0.06	19.9150	0.354	1.776	ug/L
	Ce	140	1430.268	0.00				ug/L
>	Tb	159	510009.401	510009.40				ug/L
	Ho	165	33.337	0.00				ug/L
	Tl	203	74.001	0.00	0.0054	0.002	29.282	ug/L
	Tl	205	126.680	0.00	-0.0113	0.002	15.658	ug/L
	Pb	206	511.354	0.00	0.0392	0.002	4.548	ug/L
	Pb	207	459.351	0.00	0.0456	0.007	15.921	ug/L
	Pb	208	2108.461	0.00	0.0474	0.001	2.154	ug/L
	U	238	27312.302	0.07	0.8255	0.026	3.157	ug/L
>	Bi	209	396968.068	396968.07				ug/L

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Na	23	61648676.013	324.28	13.8139	0.658	4.761	mg/L
Mg	24	16192746.018	85.18	5.9059	0.110	1.868	mg/L
K	39	6983626.121	34.06	1.1259	0.016	1.435	mg/L
Ca	43	398230.217	2.09	31.8196	0.340	1.067	mg/L
Fe	54	98137.055	0.33	0.1145	0.005	4.255	mg/L
Fe	57	35023.660	0.14	0.1197	0.007	5.520	mg/L
Sc-1	45	190180.976	190180.98				mg/L
Cl	35	336758.052	307953.68				mg/L
Kr	83	44.001	-10.67				mg/L
Br	81	917051.483	909876.39				mg/L
P	31	12723.723	4127.28				mg/L
S	34	586324.601	406824.52				mg/L
Sr	88	2073513.575	2073456.90				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		93.897			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		92.056			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		97.473			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.974			

Sample ID: L1201068602
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201068602
Report Date/Time: Tuesday, January 31, 2012 15:39:02
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Method 6020 - Summary Report

Sample ID: L1201068603

Sample Date/Time: Tuesday, January 31, 2012 15:44:36
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 48
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11074.048	-0.00				ug/L
	Be	9	5.333	-0.00	-0.0288	0.012	40.670	ug/L
	Al	27	298772.235	1.76	70.3978	13.382	19.009	ug/L
>	Sc	45	169373.258	169373.26				ug/L
	Ti	49	2147.161	0.01	5.4734	0.832	15.192	ug/L
	V	51	10532.490	0.02	1.2666	0.055	4.352	ug/L
	Cr	52	13697.720	0.02	1.3445	0.006	0.451	ug/L
	Cr	53	2270.536	0.01	2.6663	0.066	2.474	ug/L
	Mn	55	27043.080	0.07	2.8761	0.034	1.198	ug/L
	Co	59	881.055	0.00	0.0726	0.001	1.560	ug/L
	Ni	60	3040.919	0.01	2.0508	0.062	3.029	ug/L
	Cu	65	1225.769	0.00	0.7496	0.035	4.697	ug/L
	Zn	66	6131.650	0.02	7.1939	0.057	0.788	ug/L
>	Ge	72	357745.872	357745.87				ug/L
	As	75	290.365	0.00	0.4438	0.151	34.038	ug/L
	Se	77	272.004	0.00	3.1627	0.345	10.897	ug/L
	Se	82	313.593	0.00	3.5594	0.445	12.512	ug/L
	Rb	85	2088.616	0.01				mg/L
	Y	89	243528.662	-36397.70				ug/L
	Rh	103	140.336	131.00				ug/L
	Mo	98	1563.843	0.00	0.7092	0.018	2.555	ug/L
	Ag	107	61.668	0.00	-0.0154	0.000	0.804	ug/L
	Cd	114	18.515	0.00	0.0087	0.006	66.572	ug/L
>	In	115	317771.922	317771.92				ug/L
	Sn	118	329.207	0.00	0.0127	0.003	26.529	ug/L
	Sb	123	83.411	0.00	0.0240	0.004	17.529	ug/L
	Ba	135	29233.149	0.06	22.2918	0.449	2.013	ug/L
	Ce	140	4094.750	0.01				ug/L
>	Tb	159	465740.279	465740.28				ug/L
	Ho	165	83.342	0.00				ug/L
	Tl	203	47.334	0.00	0.0020	0.001	47.813	ug/L
	Tl	205	80.008	0.00	-0.0138	0.002	13.840	ug/L
	Pb	206	709.371	0.00	0.0986	0.008	7.873	ug/L
	Pb	207	612.362	0.00	0.0961	0.006	6.746	ug/L
	Pb	208	2836.219	0.01	0.1001	0.006	6.460	ug/L
	U	238	6819.192	0.02	0.2159	0.010	4.546	ug/L
>	Bi	209	354002.280	354002.28				ug/L

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Na	23	71136193.278	420.77	17.9241	1.326	7.398	mg/L
Mg	24	41975628.763	248.27	17.2246	0.959	5.569	mg/L
K	39	7551884.650	41.97	1.3875	0.052	3.729	mg/L
Ca	43	801936.257	4.74	72.0334	2.418	3.356	mg/L
Fe	54	87971.781	0.33	0.1158	0.007	5.803	mg/L
Fe	57	50393.624	0.26	0.2177	0.015	6.961	mg/L
Sc-1	45	169373.258	169373.26				mg/L
Cl	35	825600.877	796796.50				mg/L
Kr	83	48.001	-6.67				mg/L
Br	81	108271.589	101096.50				mg/L
P	31	11218.887	2622.44				mg/L
S	34	1612538.786	1433038.71				mg/L
Sr	88	4452854.248	4452797.58				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		84.072			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		81.390			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		89.012			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		84.695			

Sample ID: L1201068603
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201068603
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Method 6020 - Summary Report

Sample ID: L1201071336

Sample Date/Time: Tuesday, January 31, 2012 15:52:22
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 49
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14930.059	0.00				ug/L
	Be	9	4.000	-0.00	-0.0370	0.005	14.020	ug/L
	Al	27	18721.072	0.07	3.0214	0.084	2.779	ug/L
>	Sc	45	210241.846	210241.85				ug/L
	Ti	49	100.011	0.00	0.0511	0.049	96.907	ug/L
	V	51	2704.384	0.00	0.0156	0.032	205.877	ug/L
	Cr	52	9122.750	0.00	0.2026	0.027	13.391	ug/L
	Cr	53	773.447	0.00	0.2900	0.080	27.426	ug/L
	Mn	55	3422.737	0.01	0.2359	0.006	2.741	ug/L
	Co	59	76.334	0.00	-0.0445	0.001	2.684	ug/L
	Ni	60	130.669	0.00	0.0307	0.002	7.220	ug/L
	Cu	65	222.005	0.00	-0.0070	0.009	128.995	ug/L
	Zn	66	566.692	0.00	0.3657	0.012	3.307	ug/L
>	Ge	72	472303.649	472303.65				ug/L
	As	75	-64.664	0.00	0.0719	0.058	80.873	ug/L
	Se	77	71.334	-0.00	-0.0325	0.042	130.767	ug/L
	Se	82	22.864	0.00	0.0927	0.126	135.503	ug/L
	Rb	85	143.669	0.00				mg/L
	Y	89	306703.096	26776.74				ug/L
	Rh	103	9.000	-0.33				ug/L
	Mo	98	33.420	0.00	-0.0015	0.004	261.284	ug/L
	Ag	107	84.001	0.00	-0.0154	0.001	6.097	ug/L
	Cd	114	7.026	0.00	-0.0044	0.002	51.170	ug/L
>	In	115	434684.627	434684.63				ug/L
	Sn	118	404.010	0.00	0.0030	0.003	114.973	ug/L
	Sb	123	70.078	0.00	0.0140	0.002	16.572	ug/L
	Ba	135	302.675	0.00	0.1464	0.002	1.453	ug/L
	Ce	140	123.347	0.00				ug/L
>	Tb	159	591045.231	591045.23				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	33.000	0.00	-0.0021	0.001	33.308	ug/L
	Tl	205	50.005	-0.00	-0.0170	0.001	5.623	ug/L
	Pb	206	296.675	0.00	-0.0140	0.000	1.095	ug/L
	Pb	207	258.340	0.00	-0.0071	0.004	56.837	ug/L
	Pb	208	1171.044	0.00	-0.0065	0.001	20.506	ug/L
	U	238	101.668	0.00	-0.0186	0.000	1.365	ug/L
>	Bi	209	460359.833	460359.83				ug/L

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⌈	Na	23	1204035.256	5.52	0.2348	0.008	3.300	mg/L
|	Mg	24	93410.214	0.44	0.0254	0.001	3.678	mg/L
|	K	39	500226.304	-0.29	-0.0107	0.004	33.503	mg/L
|	Ca	43	643.423	0.00	0.0279	0.006	21.443	mg/L
|	Fe	54	77390.690	0.18	0.0593	0.003	4.922	mg/L
|	Fe	57	7907.876	-0.00	-0.0066	0.001	15.649	mg/L
⌊>	Sc-1	45	210241.846	210241.85				mg/L
	Cl	35	38391.572	9587.20				mg/L
	Kr	83	54.001	-0.67				mg/L
	Br	81	22110.646	14935.56				mg/L
	P	31	17042.192	8445.75				mg/L
	S	34	201702.334	22202.26				mg/L
	Sr	88	9249.394	9192.72				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	6					
|	Be	9					
|	Al	27					
⌊>	Sc	45					
⌈	Ti	49					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Co	59					
|	Ni	60					
|	Cu	65					
|	Zn	66					
|>	Ge	72		110.994			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		111.335			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		112.961			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		110.140			

Sample ID: L1201071336
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201071336
Report Date/Time: Tuesday, January 31, 2012 15:54:34
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201071338

Sample Date/Time: Tuesday, January 31, 2012 16:09:49
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 50
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14278.902	-0.00				ug/L
	Be	9	4.000	-0.00	-0.0370	0.010	27.242	ug/L
	Al	27	48272.778	0.21	8.4795	0.420	4.949	ug/L
>	Sc	45	214446.174	214446.17				ug/L
	Ti	49	213.357	0.00	0.2654	0.052	19.767	ug/L
	V	51	2762.237	0.00	0.0137	0.016	116.521	ug/L
	Cr	52	9493.166	0.00	0.2178	0.023	10.422	ug/L
	Cr	53	710.102	0.00	0.2041	0.159	78.011	ug/L
	Mn	55	31271.240	0.06	2.4453	0.034	1.401	ug/L
	Co	59	86.335	0.00	-0.0437	0.002	3.446	ug/L
	Ni	60	609.028	0.00	0.2712	0.017	6.094	ug/L
	Cu	65	205.338	0.00	-0.0190	0.004	21.076	ug/L
	Zn	66	580.026	0.00	0.3639	0.012	3.288	ug/L
>	Ge	72	485160.093	485160.09				ug/L
	As	75	-189.791	-0.00	-0.0287	0.045	158.194	ug/L
	Se	77	66.667	-0.00	-0.1047	0.122	116.530	ug/L
	Se	82	10.194	0.00	-0.0234	0.047	201.611	ug/L
	Rb	85	113.669	0.00				mg/L
	Y	89	323231.499	43305.14				ug/L
	Rh	103	9.333	0.00				ug/L
	Mo	98	22.790	-0.00	-0.0053	0.001	20.622	ug/L
	Ag	107	76.001	-0.00	-0.0171	0.001	8.147	ug/L
	Cd	114	5.313	0.00	-0.0057	0.001	11.500	ug/L
>	In	115	448104.427	448104.43				ug/L
	Sn	118	377.609	0.00	-0.0049	0.002	34.644	ug/L
	Sb	123	81.456	0.00	0.0160	0.003	18.790	ug/L
	Ba	135	786.045	0.00	0.4300	0.029	6.850	ug/L
	Ce	140	390.048	0.00				ug/L
>	Tb	159	600064.598	600064.60				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	31.334	-0.00	-0.0023	0.001	51.567	ug/L
	Tl	205	76.675	0.00	-0.0154	0.001	4.471	ug/L
	Pb	206	313.676	0.00	-0.0106	0.002	17.398	ug/L
	Pb	207	294.675	0.00	0.0003	0.003	1286.513	ug/L
	Pb	208	1345.391	0.00	0.0012	0.004	299.592	ug/L
	U	238	52.001	0.00	-0.0199	0.000	2.299	ug/L
>	Bi	209	457364.917	457364.92				ug/L

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Na	23	83147.916	0.17	0.0071	0.001	13.287	mg/L
Mg	24	44720.813	0.21	0.0091	0.001	9.104	mg/L
K	39	483142.756	-0.41	-0.0148	0.005	34.641	mg/L
Ca	43	583.412	0.00	0.0225	0.002	7.059	mg/L
Fe	54	80971.287	0.19	0.0628	0.003	4.571	mg/L
Fe	57	8345.012	-0.00	-0.0055	0.002	34.537	mg/L
Sc-1	45	214446.174	214446.17				mg/L
Cl	35	28307.999	-496.38				mg/L
Kr	83	54.334	-0.33				mg/L
Br	81	13268.565	6093.47				mg/L
P	31	17865.824	9269.38				mg/L
S	34	198861.525	19361.45				mg/L
Sr	88	2293.879	2237.21				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		114.015			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		114.772			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		114.684			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		109.424			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201071338
Report Date/Time: Tuesday, January 31, 2012 16:12:01
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201068505

Sample Date/Time: Tuesday, January 31, 2012 16:17:35
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 51
Method File: C:\elandata\Method\6020a.mth
Sample Description: 10

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12709.740	-0.00				ug/L
	Be	9	58.000	0.00	0.1358	0.017	12.790	ug/L
	Al	27	6709979.150	34.67	1386.7641	57.924	4.177	ug/L
>	Sc	45	193624.654	193624.65				ug/L
	Ti	49	886.803	0.00	1.6746	0.080	4.788	ug/L
	V	51	24558.500	0.05	2.5592	0.076	2.974	ug/L
	Cr	52	21585.469	0.03	1.8927	0.042	2.228	ug/L
	Cr	53	2273.872	0.00	1.9839	0.167	8.417	ug/L
	Mn	55	1935640.135	4.25	164.1097	1.416	0.863	ug/L
	Co	59	18544.466	0.04	2.0193	0.035	1.739	ug/L
	Ni	60	6320.793	0.01	3.3719	0.034	1.002	ug/L
	Cu	65	5710.681	0.01	3.0794	0.031	0.998	ug/L
	Zn	66	11290.091	0.02	10.4735	0.330	3.146	ug/L
>	Ge	72	455483.033	455483.03				ug/L
	As	75	1208.197	0.00	1.1636	0.018	1.544	ug/L
	Se	77	66.667	-0.00	-0.0578	0.103	178.019	ug/L
	Se	82	28.525	0.00	0.1516	0.084	55.117	ug/L
	Rb	85	19537.417	0.04				mg/L
	Y	89	307463.183	27536.82				ug/L
	Rh	103	11.333	2.00				ug/L
	Mo	98	238.828	0.00	0.0728	0.006	8.269	ug/L
	Ag	107	104.002	0.00	-0.0111	0.002	15.376	ug/L
	Cd	114	46.700	0.00	0.0262	0.007	27.399	ug/L
>	In	115	409800.900	409800.90				ug/L
	Sn	118	446.812	0.00	0.0176	0.004	22.713	ug/L
	Sb	123	130.618	0.00	0.0295	0.001	3.880	ug/L
	Ba	135	62230.869	0.11	40.8309	1.137	2.786	ug/L
	Ce	140	86249.960	0.16				ug/L
>	Tb	159	541485.973	541485.97				ug/L
	Ho	165	1967.096	0.00				ug/L
	Tl	203	196.004	0.00	0.0236	0.005	20.715	ug/L
	Tl	205	486.730	0.00	0.0110	0.005	50.028	ug/L
	Pb	206	12227.420	0.03	2.3283	0.030	1.306	ug/L
	Pb	207	10180.986	0.02	2.0733	0.067	3.216	ug/L
	Pb	208	48573.347	0.11	2.1858	0.034	1.544	ug/L
	U	238	3928.966	0.01	0.0933	0.002	2.542	ug/L
>	Bi	209	421987.003	421987.00				ug/L

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Na	23	165991.507	0.64	0.0272	0.002	8.505	mg/L
Mg	24	921474.031	4.76	0.3251	0.017	5.176	mg/L
K	39	1134987.632	3.19	0.1045	0.004	3.956	mg/L
Ca	43	4538.358	0.02	0.3379	0.028	8.294	mg/L
Fe	54	1929399.413	9.78	3.6464	0.141	3.853	mg/L
Fe	57	854892.952	4.38	3.7665	0.159	4.214	mg/L
Sc-1	45	193624.654	193624.65				mg/L
Cl	35	25648.747	-3155.63				mg/L
Kr	83	54.667	0.00				mg/L
Br	81	10600.755	3425.66				mg/L
P	31	43842.365	35245.92				mg/L
S	34	179380.687	-119.39				mg/L
Sr	88	28274.054	28217.38				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		107.041			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		104.962			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		103.489			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		100.960			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: PBW 1P WG388377-02

Sample Date/Time: Tuesday, January 31, 2012 16:25:22
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 52
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12859.941	-0.00				ug/L
	Be	9	7.333	-0.00	-0.0247	0.013	53.757	ug/L
	Al	27	6252.380	0.02	0.7911	0.212	26.806	ug/L
>	Sc	45	188133.453	188133.45				ug/L
	Ti	49	60.006	0.00	-0.0156	0.057	365.790	ug/L
	V	51	2007.466	-0.00	-0.0396	0.010	24.636	ug/L
	Cr	52	6484.922	-0.00	-0.0497	0.020	39.548	ug/L
	Cr	53	610.083	0.00	0.1819	0.016	8.836	ug/L
	Mn	55	1648.846	0.00	0.1045	0.001	1.316	ug/L
	Co	59	98.668	0.00	-0.0411	0.001	2.087	ug/L
	Ni	60	676.701	0.00	0.3505	0.003	0.970	ug/L
	Cu	65	165.003	0.00	-0.0288	0.013	44.014	ug/L
	Zn	66	370.679	0.00	0.2222	0.006	2.608	ug/L
>	Ge	72	428661.396	428661.40				ug/L
	As	75	-134.559	0.00	0.0018	0.033	1857.307	ug/L
	Se	77	74.667	0.00	0.0889	0.067	74.876	ug/L
	Se	82	7.189	0.00	-0.0415	0.143	344.034	ug/L
	Rb	85	40.000	0.00				mg/L
	Y	89	281059.124	1132.77				ug/L
	Rh	103	8.667	-0.67				ug/L
	Mo	98	17.343	-0.00	-0.0063	0.001	18.738	ug/L
	Ag	107	62.668	-0.00	-0.0179	0.001	5.843	ug/L
	Cd	114	5.666	0.00	-0.0049	0.003	54.565	ug/L
>	In	115	393398.483	393398.48				ug/L
	Sn	118	272.671	-0.00	-0.0186	0.003	17.163	ug/L
	Sb	123	50.660	0.00	0.0108	0.003	25.791	ug/L
	Ba	135	56.334	0.00	0.0027	0.005	173.355	ug/L
	Ce	140	36.670	-0.00				ug/L
>	Tb	159	521827.647	521827.65				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	21.000	-0.00	-0.0035	0.000	4.613	ug/L
	Tl	205	53.339	-0.00	-0.0164	0.002	13.073	ug/L
	Pb	206	263.673	0.00	-0.0147	0.000	0.503	ug/L
	Pb	207	229.005	0.00	-0.0079	0.001	18.536	ug/L
	Pb	208	1018.034	0.00	-0.0082	0.001	9.246	ug/L
	U	238	20.334	-0.00	-0.0207	0.000	1.377	ug/L
>	Bi	209	414715.654	414715.65				ug/L

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Na	23	41296.201	0.00	-0.0001	0.000	36.638	mg/L
Mg	24	1020.165	0.00	-0.0051	0.000	0.550	mg/L
K	39	462758.997	-0.21	-0.0082	0.002	27.245	mg/L
Ca	43	196.689	0.00	-0.0030	0.005	178.767	mg/L
Fe	54	36313.687	0.00	-0.0062	0.002	25.953	mg/L
Fe	57	6356.393	-0.01	-0.0100	0.001	6.742	mg/L
Sc-1	45	188133.453	188133.45				mg/L
Cl	35	24503.318	-4301.06				mg/L
Kr	83	55.001	0.33				mg/L
Br	81	8757.267	1582.18				mg/L
P	31	7728.253	-868.19				mg/L
S	34	167361.886	-12138.19				mg/L
Sr	88	120.013	63.34				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		100.737			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		100.760			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		99.732			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		99.220			

Sample ID: PBW 1P WG388377-02
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 1P WG388377-02
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Method 6020 - Summary Report

Sample ID: LCSW 1P WG388377-03

Sample Date/Time: Tuesday, January 31, 2012 16:33:09
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 53
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12642.922	-0.00				ug/L
	Be	9	7348.574	0.04	23.7787	0.720	3.027	ug/L
	Al	27	115748.482	0.60	23.8960	0.645	2.699	ug/L
>	Sc	45	189514.166	189514.17				ug/L
	Ti	49	53.339	0.00	-0.0324	0.012	35.840	ug/L
	V	51	203582.988	0.46	24.2694	0.134	0.553	ug/L
	Cr	52	183942.766	0.40	24.3490	0.152	0.624	ug/L
	Cr	53	21884.234	0.05	24.7073	0.652	2.640	ug/L
	Mn	55	281161.448	0.64	24.7813	0.270	1.089	ug/L
	Co	59	207045.967	0.47	24.0324	0.157	0.651	ug/L
	Ni	60	43356.932	0.10	24.3104	0.200	0.824	ug/L
	Cu	65	41854.941	0.10	24.3455	0.208	0.855	ug/L
	Zn	66	25202.305	0.06	24.5318	0.142	0.577	ug/L
>	Ge	72	437464.783	437464.78				ug/L
	As	75	26675.376	0.06	24.0063	0.243	1.011	ug/L
	Se	77	2109.600	0.00	24.4695	0.147	0.600	ug/L
	Se	82	2462.624	0.01	23.4351	0.450	1.919	ug/L
	Rb	85	43.334	0.00				mg/L
	Y	89	279511.417	-414.94				ug/L
	Rh	103	19.334	10.00				ug/L
	Mo	98	51.896	0.00	0.0065	0.002	23.827	ug/L
	Ag	107	135487.135	0.34	24.7365	0.628	2.539	ug/L
	Cd	114	31751.870	0.08	25.0609	0.736	2.935	ug/L
>	In	115	395789.695	395789.70				ug/L
	Sn	118	333.473	0.00	-0.0050	0.003	60.405	ug/L
	Sb	123	96874.720	0.24	24.1143	0.501	2.080	ug/L
	Ba	135	37130.915	0.07	24.7690	0.371	1.497	ug/L
	Ce	140	46.671	-0.00				ug/L
>	Tb	159	532350.121	532350.12				ug/L
	Ho	165	0.000	-0.00				ug/L
	Tl	203	154422.647	0.38	24.6037	0.108	0.439	ug/L
	Tl	205	383615.914	0.93	24.9435	0.651	2.611	ug/L
	Pb	206	130319.083	0.32	26.1539	0.351	1.343	ug/L
	Pb	207	115886.773	0.28	24.8382	0.360	1.450	ug/L
	Pb	208	534486.767	1.30	25.2774	0.310	1.227	ug/L
	U	238	832746.823	2.03	24.9191	0.328	1.318	ug/L
>	Bi	209	410888.593	410888.59				ug/L

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Na	23	46933.147	0.03	0.0011	0.000	6.916	mg/L
Mg	24	1156.863	0.00	-0.0050	0.000	0.552	mg/L
K	39	460405.969	-0.24	-0.0092	0.002	25.642	mg/L
Ca	43	183.354	0.00	-0.0042	0.001	26.320	mg/L
Fe	54	36215.056	0.00	-0.0069	0.006	84.062	mg/L
Fe	57	6496.514	-0.01	-0.0095	0.000	5.224	mg/L
Sc-1	45	189514.166	189514.17				mg/L
Cl	35	23086.603	-5717.77				mg/L
Kr	83	51.334	-3.33				mg/L
Br	81	8157.325	982.23				mg/L
P	31	8001.841	-594.60				mg/L
S	34	166730.160	-12769.92				mg/L
Sr	88	173.353	116.68				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		102.806			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		101.373			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		101.743			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		98.305			

Sample ID: LCSW 1P WG388377-03
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSW 1P WG388377-03
Report Date/Time: Tuesday, January 31, 2012 16:35:22
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, January 31, 2012 16:40:57
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 5
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12042.079	-0.01				ug/L
	Be	9	14980.788	0.08	48.2501	0.981	2.033	ug/L
	Al	27	236766.585	1.23	49.1562	0.922	1.875	ug/L
>	Sc	45	190605.297	190605.30				ug/L
	Ti	49	47627.151	0.11	99.0152	0.902	0.911	ug/L
	V	51	417059.759	0.92	48.7249	0.569	1.168	ug/L
	Cr	52	367049.696	0.80	48.2451	0.743	1.541	ug/L
	Cr	53	43769.017	0.10	48.6572	0.673	1.384	ug/L
	Mn	55	572203.594	1.27	49.1835	1.908	3.879	ug/L
	Co	59	433723.799	0.97	49.1032	0.638	1.300	ug/L
	Ni	60	87545.324	0.19	47.8684	1.180	2.465	ug/L
	Cu	65	84436.138	0.19	47.9836	1.291	2.691	ug/L
	Zn	66	52279.687	0.12	49.7298	0.660	1.327	ug/L
>	Ge	72	449102.380	449102.38				ug/L
	As	75	55838.754	0.12	48.8280	0.569	1.165	ug/L
	Se	77	4337.129	0.01	49.8256	1.188	2.385	ug/L
	Se	82	5181.549	0.01	48.1708	1.391	2.887	ug/L
	Rb	85	2019.598	0.00				mg/L
	Y	89	285921.790	5995.43				ug/L
	Rh	103	25.334	16.00				ug/L
	Mo	98	268651.993	0.67	98.5385	1.211	1.229	ug/L
	Ag	107	278759.473	0.70	50.3841	0.503	0.999	ug/L
	Cd	114	61929.830	0.15	48.3651	1.444	2.985	ug/L
>	In	115	399949.771	399949.77				ug/L
	Sn	118	219792.830	0.55	49.9954	1.147	2.293	ug/L
	Sb	123	202039.019	0.51	49.7613	1.065	2.141	ug/L
	Ba	135	74910.969	0.14	49.3318	1.073	2.174	ug/L
	Ce	140	113.345	0.00				ug/L
>	Tb	159	539620.467	539620.47				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	312686.863	0.76	49.4551	1.108	2.240	ug/L
	Tl	205	773627.914	1.87	49.9453	0.730	1.462	ug/L
	Pb	206	252331.942	0.61	50.3159	0.265	0.527	ug/L
	Pb	207	233028.039	0.56	49.6278	1.293	2.606	ug/L
	Pb	208	1061013.693	2.56	49.8495	0.334	0.669	ug/L
	U	238	1722188.089	4.16	51.1632	0.263	0.513	ug/L
>	Bi	209	414041.135	414041.14				ug/L

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Na	23	22083710.399	115.67	4.9271	0.161	3.273	mg/L
Mg	24	13699233.069	71.88	4.9831	0.108	2.161	mg/L
K	39	29857938.835	153.98	5.0942	0.024	0.478	mg/L
Ca	43	62701.378	0.33	4.9828	0.186	3.740	mg/L
Fe	54	2634316.515	13.63	5.0848	0.175	3.434	mg/L
Fe	57	1158752.478	6.04	5.1988	0.223	4.286	mg/L
Sc-1	45	190605.297	190605.30				mg/L
Cl	35	24490.602	-4313.77				mg/L
Kr	83	55.334	0.67				mg/L
Br	81	8515.691	1340.60				mg/L
P	31	8677.854	81.41				mg/L
S	34	176160.700	-3339.38				mg/L
Sr	88	4424.952	4368.28				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	97.450				
Cr	52	96.490				
Cr	53					
Mn	55	98.367				
Co	59	98.206				
Ni	60	95.737				
Cu	65	95.967				
Zn	66	99.460				
Ge	72		105.541			
As	75	97.656				
Se	77					
Se	82	96.342				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	100.768				
Cd	114	96.730				
In	115		102.438			
Sn	118					
Sb	123	99.523				
Ba	135	98.664				
Ce	140					
Tb	159		103.132			
Ho	165					
Tl	203	98.910				
Tl	205					
Pb	206					
Pb	207					
Pb	208	99.699				
U	238	102.326				
Bi	209		99.059			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Tuesday, January 31, 2012 16:43:10
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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, January 31, 2012 16:48:34
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12843.226	-0.00				ug/L
	Be	9	8.667	0.00	-0.0208	0.019	90.346	ug/L
	Al	27	3083.909	0.00	0.1171	0.103	87.954	ug/L
>	Sc	45	188511.522	188511.52				ug/L
	Ti	49	73.341	0.00	0.0118	0.026	219.160	ug/L
	V	51	2210.768	0.00	-0.0178	0.005	29.966	ug/L
	Cr	52	6903.595	0.00	-0.0025	0.007	300.400	ug/L
	Cr	53	600.083	0.00	0.1621	0.180	111.280	ug/L
	Mn	55	316.676	0.00	-0.0159	0.001	8.158	ug/L
	Co	59	93.001	0.00	-0.0419	0.000	0.995	ug/L
	Ni	60	38.000	0.00	-0.0158	0.002	14.949	ug/L
	Cu	65	152.336	0.00	-0.0375	0.004	10.293	ug/L
	Zn	66	85.335	-0.00	-0.0640	0.003	3.969	ug/L
>	Ge	72	433861.203	433861.20				ug/L
	As	75	-85.958	0.00	0.0470	0.032	68.530	ug/L
	Se	77	72.667	-0.00	0.0542	0.122	224.453	ug/L
	Se	82	14.574	0.00	0.0290	0.066	226.599	ug/L
	Rb	85	29.667	-0.00				mg/L
	Y	89	278856.336	-1070.02				ug/L
	Rh	103	7.667	-1.67				ug/L
	Mo	98	81.640	0.00	0.0173	0.005	26.628	ug/L
	Ag	107	115.669	0.00	-0.0084	0.001	16.850	ug/L
	Cd	114	9.993	0.00	-0.0016	0.004	259.312	ug/L
>	In	115	398360.006	398360.01				ug/L
	Sn	118	335.473	0.00	-0.0050	0.004	86.555	ug/L
	Sb	123	108.121	0.00	0.0248	0.003	12.917	ug/L
	Ba	135	47.334	0.00	-0.0038	0.010	252.395	ug/L
	Ce	140	23.336	-0.00				ug/L
>	Tb	159	528965.193	528965.19				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	73.668	0.00	0.0051	0.002	32.791	ug/L
	Tl	205	163.351	0.00	-0.0091	0.001	7.157	ug/L
	Pb	206	296.008	0.00	-0.0069	0.002	21.824	ug/L
	Pb	207	239.006	0.00	-0.0045	0.002	42.268	ug/L
	Pb	208	1133.041	0.00	-0.0016	0.000	27.532	ug/L
	U	238	218.672	0.00	-0.0147	0.000	2.100	ug/L
>	Bi	209	405183.072	405183.07				ug/L

Sample ID: QC Std 7
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Na	23	32111.750	-0.04	-0.0021	0.001	34.229	mg/L
Mg	24	1757.030	0.01	-0.0048	0.000	1.439	mg/L
K	39	466581.901	-0.19	-0.0076	0.004	53.064	mg/L
Ca	43	136.682	-0.00	-0.0080	0.004	46.871	mg/L
Fe	54	36720.413	0.01	-0.0055	0.004	64.732	mg/L
Fe	57	6943.595	-0.00	-0.0072	0.004	51.651	mg/L
Sc-1	45	188511.522	188511.52				mg/L
Cl	35	24206.441	-4597.93				mg/L
Kr	83	49.001	-5.67				mg/L
Br	81	8007.848	832.76				mg/L
P	31	7486.715	-1109.73				mg/L
S	34	168931.651	-10568.43				mg/L
Sr	88	90.010	33.34				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		101.959			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		102.031			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		101.096			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.940			

Sample ID: QC Std 7
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, January 31, 2012 16:56:12
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 9
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13410.867	0.00				ug/L
	Be	9	9.333	0.00	-0.0185	0.004	19.079	ug/L
	Al	27	3417.375	0.00	0.1776	0.098	55.353	ug/L
>	Sc	45	190605.586	190605.59				ug/L
	Ti	49	80.008	0.00	0.0265	0.073	275.454	ug/L
	V	51	5564.480	0.01	0.3964	0.018	4.426	ug/L
	Cr	52	12918.143	0.01	0.8487	0.022	2.575	ug/L
	Cr	53	1300.232	0.00	0.9890	0.088	8.947	ug/L
	Mn	55	6368.832	0.01	0.5283	0.013	2.406	ug/L
	Co	59	3794.902	0.01	0.3967	0.012	3.073	ug/L
	Ni	60	3063.594	0.01	1.7138	0.006	0.366	ug/L
	Cu	65	1525.155	0.00	0.7806	0.041	5.228	ug/L
	Zn	66	6857.891	0.02	6.6878	0.102	1.530	ug/L
>	Ge	72	429815.158	429815.16				ug/L
	As	75	299.783	0.00	0.3987	0.041	10.338	ug/L
	Se	77	77.334	0.00	0.1206	0.164	136.171	ug/L
	Se	82	44.888	0.00	0.3242	0.107	33.064	ug/L
	Rb	85	25.667	-0.00				mg/L
	Y	89	284431.609	4505.25				ug/L
	Rh	103	7.000	-2.33				ug/L
	Mo	98	59.083	0.00	0.0093	0.004	43.311	ug/L
	Ag	107	2505.402	0.01	0.4310	0.006	1.289	ug/L
	Cd	114	265.886	0.00	0.2016	0.026	12.728	ug/L
>	In	115	393590.732	393590.73				ug/L
	Sn	118	336.273	0.00	-0.0039	0.002	42.351	ug/L
	Sb	123	1752.694	0.00	0.4368	0.008	1.829	ug/L
	Ba	135	1238.771	0.00	0.7998	0.036	4.517	ug/L
	Ce	140	30.003	-0.00				ug/L
>	Tb	159	527188.310	527188.31				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	631.697	0.00	0.0932	0.004	3.848	ug/L
	Tl	205	1553.634	0.00	0.0805	0.006	7.783	ug/L
	Pb	206	2412.373	0.01	0.4147	0.014	3.366	ug/L
	Pb	207	2187.642	0.00	0.4101	0.014	3.483	ug/L
	Pb	208	9879.741	0.02	0.4089	0.003	0.791	ug/L
	U	238	14391.564	0.03	0.4067	0.010	2.532	ug/L
>	Bi	209	413759.830	413759.83				ug/L

Sample ID: QC Std 8
Report Date/Time: Tuesday, January 31, 2012 16:58:26
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Na	23	34094.513	-0.04	-0.0018	0.001	81.397	mg/L
Mg	24	1830.387	0.01	-0.0048	0.000	2.148	mg/L
K	39	472492.335	-0.19	-0.0075	0.002	28.252	mg/L
Ca	43	136.682	-0.00	-0.0080	0.004	55.319	mg/L
Fe	54	36517.354	0.00	-0.0067	0.005	71.950	mg/L
Fe	57	6639.979	-0.01	-0.0090	0.002	21.227	mg/L
Sc-1	45	190605.586	190605.59				mg/L
Cl	35	24800.858	-4003.52				mg/L
Kr	83	51.334	-3.33				mg/L
Br	81	7956.464	781.37				mg/L
P	31	9002.222	405.78				mg/L
S	34	169116.323	-10383.75				mg/L
Sr	88	126.680	70.01				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	99.094				
Cr	52	106.087				
Cr	53					
Mn	55	105.651				
Co	59	99.180				
Ni	60	107.112				
Cu	65	97.578				
Zn	66	107.004				
Ge	72		101.009			
As	75	99.680				
Se	77					
Se	82	81.057				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	107.758				
Cd	114	100.800				
In	115		100.810			
Sn	118					
Sb	123	109.191				
Ba	135	106.642				
Ce	140					
Tb	159		100.756			
Ho	165					
Tl	203	116.491				
Tl	205					
Pb	206					
Pb	207					
Pb	208	102.236				
U	238	101.682				
Bi	209		98.991			

Sample ID: QC Std 8
Report Date/Time: Tuesday, January 31, 2012 16:58:26
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 8
Report Date/Time: Tuesday, January 31, 2012 16:58:26
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: F BLANK WG388312-01

Sample Date/Time: Tuesday, January 31, 2012 17:03:50
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 54
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12259.048	0.00				ug/L
	Be	9	9.333	0.00	-0.0150	0.016	109.120	ug/L
	Al	27	2683.780	0.00	0.0837	0.168	200.861	ug/L
>	Sc	45	173370.086	173370.09				ug/L
	Ti	49	80.008	0.00	0.0323	0.037	114.967	ug/L
	V	51	2103.284	0.00	-0.0214	0.013	61.490	ug/L
	Cr	52	6697.758	0.00	0.0040	0.025	622.564	ug/L
	Cr	53	496.731	0.00	0.0635	0.079	124.449	ug/L
	Mn	55	702.703	0.00	0.0208	0.002	10.577	ug/L
	Co	59	78.334	0.00	-0.0432	0.001	1.229	ug/L
	Ni	60	283.008	0.00	0.1291	0.021	16.414	ug/L
	Cu	65	132.336	-0.00	-0.0463	0.004	9.135	ug/L
	Zn	66	408.014	0.00	0.2698	0.020	7.485	ug/L
>	Ge	72	418219.665	418219.67				ug/L
	As	75	-146.680	0.00	-0.0123	0.026	210.495	ug/L
	Se	77	62.667	-0.00	-0.0382	0.114	299.480	ug/L
	Se	82	-0.122	-0.00	-0.1122	0.057	51.209	ug/L
	Rb	85	27.000	-0.00				mg/L
	Y	89	265713.405	-14212.95				ug/L
	Rh	103	9.333	-0.00				ug/L
	Mo	98	30.123	0.00	-0.0012	0.001	75.683	ug/L
	Ag	107	71.668	0.00	-0.0159	0.001	9.150	ug/L
	Cd	114	3.408	0.00	-0.0067	0.002	37.368	ug/L
>	In	115	383515.666	383515.67				ug/L
	Sn	118	263.871	-0.00	-0.0191	0.003	16.053	ug/L
	Sb	123	125.370	0.00	0.0303	0.003	11.236	ug/L
	Ba	135	43.667	0.00	-0.0057	0.003	57.485	ug/L
	Ce	140	20.002	-0.00				ug/L
>	Tb	159	517734.289	517734.29				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	35.000	0.00	-0.0010	0.001	81.367	ug/L
	Tl	205	80.008	0.00	-0.0144	0.002	14.419	ug/L
	Pb	206	246.339	0.00	-0.0157	0.004	27.025	ug/L
	Pb	207	204.005	0.00	-0.0110	0.005	42.421	ug/L
	Pb	208	972.366	0.00	-0.0081	0.002	18.793	ug/L
	U	238	59.667	0.00	-0.0194	0.000	1.279	ug/L
>	Bi	209	394942.342	394942.34				ug/L

Sample ID: F BLANK WG388312-01
Report Date/Time: Tuesday, January 31, 2012 17:06:03
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Na	23	34009.330	-0.02	-0.0010	0.000	46.946	mg/L
Mg	24	1040.171	0.00	-0.0050	0.000	2.073	mg/L
K	39	461813.456	-0.00	-0.0013	0.004	324.341	mg/L
Ca	43	156.684	0.00	-0.0052	0.001	17.111	mg/L
Fe	54	34734.169	0.01	-0.0034	0.003	85.260	mg/L
Fe	57	6446.471	-0.00	-0.0070	0.002	31.963	mg/L
Sc-1	45	173370.086	173370.09				mg/L
Cl	35	23240.366	-5564.01				mg/L
Kr	83	52.334	-2.33				mg/L
Br	81	7483.363	308.27				mg/L
P	31	7031.651	-1564.79				mg/L
S	34	155062.091	-24437.99				mg/L
Sr	88	120.013	63.34				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		98.284			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		98.229			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.949			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.489			

Sample ID: F BLANK WG388312-01
Report Date/Time: Tuesday, January 31, 2012 17:06:03
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: F BLANK WG388312-01
Report Date/Time: Tuesday, January 31, 2012 17:06:03
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201051501

Sample Date/Time: Tuesday, January 31, 2012 17:11:38
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 55
Method File: C:\elandata\Method\6020a.mth
Sample Description: 10

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12826.606	-0.00				ug/L
	Be	9	5.333	-0.00	-0.0310	0.004	12.789	ug/L
	Al	27	4584.598	0.01	0.4407	0.083	18.766	ug/L
>	Sc	45	187179.082	187179.08				ug/L
	Ti	49	63.340	0.00	-0.0048	0.123	2540.763	ug/L
	V	51	2042.917	-0.00	-0.0288	0.012	41.821	ug/L
	Cr	52	6612.022	0.00	-0.0080	0.005	59.646	ug/L
	Cr	53	526.736	0.00	0.0997	0.062	61.867	ug/L
	Mn	55	1065.412	0.00	0.0544	0.003	5.380	ug/L
	Co	59	58.334	0.00	-0.0457	0.001	2.199	ug/L
	Ni	60	423.348	0.00	0.2115	0.008	3.812	ug/L
	Cu	65	159.670	0.00	-0.0296	0.005	17.231	ug/L
	Zn	66	570.359	0.00	0.4363	0.034	7.786	ug/L
>	Ge	72	417950.682	417950.68				ug/L
	As	75	-143.598	0.00	-0.0098	0.064	657.542	ug/L
	Se	77	62.000	-0.00	-0.0470	0.115	244.341	ug/L
	Se	82	4.890	0.00	-0.0625	0.186	296.872	ug/L
	Rb	85	67.668	0.00				mg/L
	Y	89	269379.842	-10546.52				ug/L
	Rh	103	11.333	2.00				ug/L
	Mo	98	25.082	0.00	-0.0032	0.001	45.197	ug/L
	Ag	107	64.668	-0.00	-0.0172	0.002	12.728	ug/L
	Cd	114	12.338	0.00	0.0007	0.020	2838.933	ug/L
>	In	115	383628.819	383628.82				ug/L
	Sn	118	548.554	0.00	0.0482	0.054	111.410	ug/L
	Sb	123	397.551	0.00	0.0999	0.047	47.422	ug/L
	Ba	135	49.001	0.00	-0.0016	0.004	227.856	ug/L
	Ce	140	60.006	0.00				ug/L
>	Tb	159	510238.675	510238.68				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	29.334	0.00	-0.0019	0.000	2.567	ug/L
	Tl	205	43.338	-0.00	-0.0169	0.001	6.157	ug/L
	Pb	206	262.673	0.00	-0.0125	0.006	46.695	ug/L
	Pb	207	228.005	0.00	-0.0059	0.004	68.440	ug/L
	Pb	208	1037.369	0.00	-0.0051	0.003	64.785	ug/L
	U	238	219243.285	0.55	6.7765	0.090	1.329	ug/L
>	Bi	209	396861.664	396861.66				ug/L

Sample ID: L1201051501
Report Date/Time: Tuesday, January 31, 2012 17:13:51
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Na	23	57493.390	0.09	0.0037	0.000	8.260	mg/L
Mg	24	1100.183	0.00	-0.0050	0.000	0.622	mg/L
K	39	483555.884	-0.08	-0.0041	0.003	79.591	mg/L
Ca	43	223.359	0.00	-0.0008	0.001	128.896	mg/L
Fe	54	39953.882	0.03	0.0014	0.003	220.391	mg/L
Fe	57	6750.078	-0.00	-0.0080	0.002	23.597	mg/L
Sc-1	45	187179.082	187179.08				mg/L
Cl	35	23827.356	-4977.02				mg/L
Kr	83	51.001	-3.67				mg/L
Br	81	7287.186	112.10				mg/L
P	31	8668.509	72.06				mg/L
S	34	161318.865	-18181.21				mg/L
Sr	88	156.684	100.01				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		98.220			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		98.258			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		97.517			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.949			

Sample ID: L1201051501
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201051501
Report Date/Time: Tuesday, January 31, 2012 17:13:51
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201051501

Sample Date/Time: Tuesday, January 31, 2012 17:19:26
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 56
Method File: C:\elandata\Method\6020a.mth
Sample Description: 50

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11507.956	-0.00				ug/L
	Be	9	8.667	0.00	-0.0169	0.015	89.196	ug/L
	Al	27	4918.124	0.01	0.6322	0.091	14.423	ug/L
>	Sc	45	167806.477	167806.48				ug/L
	Ti	49	60.006	0.00	-0.0044	0.072	1619.815	ug/L
	V	51	2059.550	0.00	-0.0124	0.008	66.916	ug/L
	Cr	52	6511.942	0.00	0.0291	0.022	77.311	ug/L
	Cr	53	496.732	0.00	0.0961	0.139	144.421	ug/L
	Mn	55	616.696	0.00	0.0160	0.002	11.834	ug/L
	Co	59	59.001	0.00	-0.0452	0.001	2.700	ug/L
	Ni	60	497.020	0.00	0.2709	0.013	4.974	ug/L
	Cu	65	147.003	0.00	-0.0324	0.005	16.578	ug/L
	Zn	66	403.680	0.00	0.2883	0.017	5.875	ug/L
>	Ge	72	396257.018	396257.02				ug/L
	As	75	-111.896	0.00	0.0143	0.061	429.799	ug/L
	Se	77	62.000	-0.00	-0.0044	0.094	2164.774	ug/L
	Se	82	4.180	-0.00	-0.0669	0.243	362.886	ug/L
	Rb	85	41.334	0.00				mg/L
	Y	89	256005.547	-23920.81				ug/L
	Rh	103	9.000	-0.33				ug/L
	Mo	98	16.489	-0.00	-0.0062	0.003	51.276	ug/L
	Ag	107	67.001	-0.00	-0.0164	0.001	3.293	ug/L
	Cd	114	6.197	0.00	-0.0043	0.002	57.456	ug/L
>	In	115	372272.759	372272.76				ug/L
	Sn	118	250.004	-0.00	-0.0205	0.006	28.717	ug/L
	Sb	123	99.661	0.00	0.0245	0.001	4.018	ug/L
	Ba	135	39.334	0.00	-0.0072	0.004	59.898	ug/L
	Ce	140	40.004	-0.00				ug/L
>	Tb	159	490987.401	490987.40				ug/L
	Ho	165	0.000	-0.00				ug/L
	Tl	203	21.000	-0.00	-0.0032	0.000	13.199	ug/L
	Tl	205	56.673	-0.00	-0.0159	0.001	6.264	ug/L
	Pb	206	232.339	0.00	-0.0168	0.002	9.945	ug/L
	Pb	207	195.671	0.00	-0.0112	0.004	31.878	ug/L
	Pb	208	907.028	0.00	-0.0096	0.002	22.865	ug/L
	U	238	41502.510	0.11	1.3205	0.018	1.368	ug/L
>	Bi	209	380687.545	380687.55				ug/L

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Na	23	37139.670	0.01	0.0000	0.000	1544.735	mg/L
Mg	24	586.746	0.00	-0.0052	0.000	0.612	mg/L
K	39	460455.590	0.08	0.0013	0.003	223.938	mg/L
Ca	43	166.685	0.00	-0.0038	0.003	75.878	mg/L
Fe	54	33433.995	0.01	-0.0039	0.003	76.721	mg/L
Fe	57	6486.508	-0.00	-0.0058	0.001	14.584	mg/L
Sc-1	45	167806.477	167806.48				mg/L
Cl	35	23202.925	-5601.45				mg/L
Kr	83	56.001	1.33				mg/L
Br	81	6876.839	-298.25				mg/L
P	31	7338.588	-1257.86				mg/L
S	34	156782.067	-22718.01				mg/L
Sr	88	103.344	46.67				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		93.122			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.350			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		93.838			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		91.079			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201051501
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Method 6020 - Summary Report

Sample ID: L1201076902

Sample Date/Time: Tuesday, January 31, 2012 17:27:14
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 57
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12860.025	0.01				ug/L
	Be	9	7.333	0.00	-0.0200	0.019	95.985	ug/L
	Al	27	30540.295	0.17	6.9045	1.254	18.168	ug/L
>	Sc	45	164930.576	164930.58				ug/L
	Ti	49	1046.839	0.00	2.4396	0.410	16.804	ug/L
	V	51	3102.633	0.00	0.1490	0.032	21.379	ug/L
	Cr	52	13582.927	0.02	1.2139	0.016	1.352	ug/L
	Cr	53	1213.543	0.00	1.0968	0.103	9.419	ug/L
	Mn	55	2753.489	0.01	0.2380	0.026	10.851	ug/L
	Co	59	591.027	0.00	0.0269	0.005	20.192	ug/L
	Ni	60	2872.197	0.01	1.8337	0.119	6.516	ug/L
	Cu	65	7923.542	0.02	5.2571	0.138	2.624	ug/L
	Zn	66	1076.747	0.00	1.0791	0.013	1.169	ug/L
>	Ge	72	375908.297	375908.30				ug/L
	As	75	346.505	0.00	0.4914	0.097	19.655	ug/L
	Se	77	90.667	0.00	0.4391	0.018	4.028	ug/L
	Se	82	45.253	0.00	0.3976	0.095	23.833	ug/L
	Rb	85	2969.563	0.01				mg/L
	Y	89	258182.614	-21743.74				ug/L
	Rh	103	54.334	45.00				ug/L
	Mo	98	1609.588	0.00	0.6663	0.021	3.142	ug/L
	Ag	107	77.668	0.00	-0.0134	0.002	11.373	ug/L
	Cd	114	32.021	0.00	0.0192	0.007	37.082	ug/L
>	In	115	348536.666	348536.67				ug/L
	Sn	118	259.204	0.00	-0.0141	0.003	22.935	ug/L
	Sb	123	695.446	0.00	0.1946	0.004	1.874	ug/L
	Ba	135	82134.427	0.17	59.6437	1.072	1.797	ug/L
	Ce	140	630.105	0.00				ug/L
>	Tb	159	489379.195	489379.20				ug/L
	Ho	165	23.336	0.00				ug/L
	Tl	203	41.667	0.00	0.0006	0.001	104.997	ug/L
	Tl	205	56.673	-0.00	-0.0159	0.002	13.778	ug/L
	Pb	206	871.722	0.00	0.1257	0.011	8.625	ug/L
	Pb	207	796.380	0.00	0.1320	0.002	1.857	ug/L
	Pb	208	3648.358	0.01	0.1345	0.003	2.386	ug/L
	U	238	3976.327	0.01	0.1101	0.001	0.640	ug/L
>	Bi	209	372395.177	372395.18				ug/L

Sample ID: L1201076902
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⌈	Na	23	21257628.699	128.95	5.4930	0.155	2.821	mg/L
|	Mg	24	5067806.293	30.84	2.1353	0.108	5.036	mg/L
|	K	39	8034358.813	46.11	1.5245	0.063	4.150	mg/L
|	Ca	43	756472.555	4.58	69.6823	1.981	2.843	mg/L
|	Fe	54	62364.072	0.19	0.0628	0.002	3.927	mg/L
|	Fe	57	35882.132	0.18	0.1478	0.013	8.899	mg/L
⌊>	Sc-1	45	164930.576	164930.58				mg/L
	Cl	35	34022.755	5218.38				mg/L
	Kr	83	47.667	-7.00				mg/L
	Br	81	9087.657	1912.57				mg/L
	P	31	18014.867	9418.42				mg/L
	S	34	1550315.227	1370815.15				mg/L
	Sr	88	1232908.708	1232852.04				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	6					
|	Be	9					
|	Al	27					
⌊>	Sc	45					
⌈	Ti	49					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Co	59					
|	Ni	60					
|	Cu	65					
|	Zn	66					
|>	Ge	72		88.340			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		89.270			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		93.530			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		89.095			

Sample ID: L1201076902
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201076902
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201076701 WG388377-01

Sample Date/Time: Tuesday, January 31, 2012 17:35:02
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 58
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14045.313	0.00				ug/L
	Be	9	7.333	-0.00	-0.0257	0.007	25.899	ug/L
	Al	27	25973.761	0.12	4.7620	0.286	6.002	ug/L
>	Sc	45	196393.054	196393.05				ug/L
	Ti	49	286.700	0.00	0.4806	0.099	20.669	ug/L
	V	51	29697.897	0.06	3.3814	0.044	1.290	ug/L
	Cr	52	20414.178	0.03	1.9160	0.025	1.306	ug/L
	Cr	53	2073.799	0.00	1.9137	0.119	6.211	ug/L
	Mn	55	5129.964	0.01	0.4197	0.008	2.016	ug/L
	Co	59	225.005	0.00	-0.0260	0.002	7.287	ug/L
	Ni	60	990.402	0.00	0.5322	0.017	3.277	ug/L
	Cu	65	1095.083	0.00	0.5285	0.029	5.478	ug/L
	Zn	66	8652.243	0.02	8.5274	0.083	0.973	ug/L
>	Ge	72	427231.358	427231.36				ug/L
	As	75	956.353	0.00	1.0018	0.060	5.979	ug/L
	Se	77	96.001	0.00	0.3533	0.232	65.764	ug/L
	Se	82	60.227	0.00	0.4789	0.102	21.281	ug/L
	Rb	85	6724.447	0.02				mg/L
	Y	89	277378.412	-2547.95				ug/L
	Rh	103	47.001	37.67				ug/L
	Mo	98	4717.835	0.01	1.7777	0.029	1.646	ug/L
	Ag	107	82.335	0.00	-0.0140	0.001	6.969	ug/L
	Cd	114	19.269	0.00	0.0061	0.014	227.682	ug/L
>	In	115	386585.380	386585.38				ug/L
	Sn	118	685.095	0.00	0.0797	0.008	10.532	ug/L
	Sb	123	182.290	0.00	0.0445	0.001	3.074	ug/L
	Ba	135	34836.688	0.06	22.6880	0.342	1.508	ug/L
	Ce	140	376.713	0.00				ug/L
>	Tb	159	545103.263	545103.26				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	27.667	-0.00	-0.0025	0.001	24.563	ug/L
	Tl	205	56.673	-0.00	-0.0162	0.001	8.238	ug/L
	Pb	206	729.039	0.00	0.0760	0.006	8.386	ug/L
	Pb	207	640.031	0.00	0.0778	0.004	4.861	ug/L
	Pb	208	2908.561	0.00	0.0786	0.001	1.003	ug/L
	U	238	12585.629	0.03	0.3469	0.004	1.214	ug/L
>	Bi	209	420625.555	420625.56				ug/L

Sample ID: L1201076701 WG388377-01
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Na	23	36765293.990	187.61	7.9916	0.652	8.157	mg/L
Mg	24	5683334.282	29.05	2.0111	0.198	9.841	mg/L
K	39	5449412.843	25.15	0.8312	0.062	7.412	mg/L
Ca	43	172475.976	0.88	13.3529	0.715	5.358	mg/L
Fe	54	66405.690	0.15	0.0485	0.013	27.572	mg/L
Fe	57	14968.274	0.04	0.0267	0.003	13.108	mg/L
Sc-1	45	196393.054	196393.05				mg/L
Cl	35	98061.090	69256.71				mg/L
Kr	83	50.667	-4.00				mg/L
Br	81	25437.457	18262.37				mg/L
P	31	13916.281	5319.84				mg/L
S	34	341142.906	161642.83				mg/L
Sr	88	1519184.364	1519127.69				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		100.401			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		99.015			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		104.180			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		100.634			

Sample ID: L1201076701 WG388377-01
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201076701 WG388377-01
Report Date/Time: Tuesday, January 31, 2012 17:37:16
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201076702S WG388377-04

Sample Date/Time: Tuesday, January 31, 2012 17:42:50
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 59
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14178.737	0.00				ug/L
	Be	9	7584.117	0.04	24.6032	0.444	1.803	ug/L
	Al	27	151926.505	0.79	31.6125	2.219	7.020	ug/L
>	Sc	45	189071.604	189071.60				ug/L
	Ti	49	443.393	0.00	0.8487	0.691	81.416	ug/L
	V	51	229301.426	0.55	28.8889	0.488	1.691	ug/L
	Cr	52	194112.392	0.45	27.2132	0.452	1.659	ug/L
	Cr	53	23505.468	0.06	28.0682	0.933	3.325	ug/L
	Mn	55	284176.521	0.68	26.4196	0.582	2.204	ug/L
	Co	59	206668.976	0.50	25.3043	0.075	0.295	ug/L
	Ni	60	42498.518	0.10	25.1366	0.321	1.276	ug/L
	Cu	65	41765.505	0.10	25.6318	0.467	1.820	ug/L
	Zn	66	26491.643	0.06	27.2155	0.288	1.058	ug/L
>	Ge	72	414750.829	414750.83				ug/L
	As	75	26760.716	0.06	25.3969	0.244	0.959	ug/L
	Se	77	1882.213	0.00	22.9822	0.503	2.187	ug/L
	Se	82	2246.602	0.01	22.5499	0.821	3.642	ug/L
	Rb	85	6594.679	0.02				mg/L
	Y	89	271284.601	-8641.76				ug/L
	Rh	103	62.334	53.00				ug/L
	Mo	98	4585.947	0.01	1.7887	0.014	0.790	ug/L
	Ag	107	134533.028	0.36	26.0219	0.488	1.875	ug/L
	Cd	114	29472.934	0.08	24.6412	0.700	2.842	ug/L
>	In	115	373510.428	373510.43				ug/L
	Sn	118	388.542	0.00	0.0131	0.001	7.859	ug/L
	Sb	123	96013.111	0.26	25.3193	0.186	0.734	ug/L
	Ba	135	69937.084	0.13	46.8362	0.699	1.492	ug/L
	Ce	140	303.369	0.00				ug/L
>	Tb	159	530479.015	530479.02				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	159828.699	0.40	25.9492	0.142	0.546	ug/L
	Tl	205	391441.699	0.97	25.9359	0.246	0.947	ug/L
	Pb	206	136600.731	0.34	27.9373	0.287	1.026	ug/L
	Pb	207	118342.236	0.29	25.8468	0.185	0.717	ug/L
	Pb	208	550147.065	1.36	26.5138	0.090	0.339	ug/L
	U	238	897605.495	2.23	27.3715	0.243	0.888	ug/L
>	Bi	209	403205.729	403205.73				ug/L

Sample ID: L1201076702S WG388377-04
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Na	23	36032379.399	190.37	8.1094	0.046	0.569	mg/L
Mg	24	5531987.388	29.26	2.0253	0.038	1.860	mg/L
K	39	5222755.661	24.98	0.8252	0.046	5.558	mg/L
Ca	43	165014.827	0.87	13.2586	0.662	4.997	mg/L
Fe	54	69356.748	0.18	0.0588	0.010	17.137	mg/L
Fe	57	16571.468	0.05	0.0365	0.005	13.655	mg/L
Sc-1	45	189071.604	189071.60				mg/L
Cl	35	106548.378	77744.00				mg/L
Kr	83	46.334	-8.33				mg/L
Br	81	22114.006	14938.92				mg/L
P	31	13927.683	5331.24				mg/L
S	34	337668.262	158168.19				mg/L
Sr	88	1488327.339	1488270.67				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		97.468			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.667			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		101.385			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.466			

Sample ID: L1201076702S WG388377-04
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201076702S WG388377-04
Report Date/Time: Tuesday, January 31, 2012 17:45:02
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Method 6020 - Summary Report

Sample ID: L1201076703SD WG388377-05

Sample Date/Time: Tuesday, January 31, 2012 17:50:36
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 60
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14178.859	-0.00				ug/L
	Be	9	7843.054	0.04	23.5672	1.063	4.512	ug/L
	Al	27	154515.176	0.74	29.7661	2.010	6.753	ug/L
>	Sc	45	204962.607	204962.61				ug/L
	Ti	49	203.356	0.00	0.3036	0.103	34.079	ug/L
	V	51	244002.448	0.57	30.0129	1.871	6.233	ug/L
	Cr	52	204171.335	0.47	28.0001	1.295	4.627	ug/L
	Cr	53	23973.935	0.06	27.9410	1.278	4.575	ug/L
	Mn	55	292820.893	0.69	26.6357	0.523	1.962	ug/L
	Co	59	212558.998	0.50	25.4548	0.719	2.825	ug/L
	Ni	60	44684.462	0.11	25.8580	0.259	1.001	ug/L
	Cu	65	144089.084	0.34	86.8507	0.548	0.631	ug/L
	Zn	66	27801.529	0.07	27.9626	0.041	0.146	ug/L
>	Ge	72	423690.113	423690.11				ug/L
	As	75	27792.753	0.07	25.8224	0.269	1.040	ug/L
	Se	77	2024.246	0.00	24.2995	1.041	4.282	ug/L
	Se	82	2355.644	0.01	23.1538	0.611	2.641	ug/L
	Rb	85	7316.974	0.02				mg/L
	Y	89	283666.670	3740.31				ug/L
	Rh	103	74.001	64.67				ug/L
	Mo	98	4959.919	0.01	1.8362	0.046	2.521	ug/L
	Ag	107	135619.379	0.34	24.9369	0.331	1.327	ug/L
	Cd	114	29710.065	0.08	23.5777	0.508	2.156	ug/L
>	In	115	393029.964	393029.96				ug/L
	Sn	118	403.076	0.00	0.0120	0.004	32.160	ug/L
	Sb	123	100113.546	0.25	25.1099	0.301	1.200	ug/L
	Ba	135	75251.796	0.14	48.3017	1.166	2.414	ug/L
	Ce	140	376.713	0.00				ug/L
>	Tb	159	554595.122	554595.12				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	168313.800	0.40	26.4856	1.177	4.445	ug/L
	Tl	205	414544.332	1.00	26.6477	0.506	1.900	ug/L
	Pb	206	141783.033	0.34	28.1335	0.296	1.051	ug/L
	Pb	207	123381.142	0.30	26.1308	0.499	1.911	ug/L
	Pb	208	575450.316	1.38	26.8902	0.560	2.081	ug/L
	U	238	924903.933	2.23	27.3708	0.130	0.475	ug/L
>	Bi	209	415359.061	415359.06				ug/L

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Na	23	41762156.601	204.49	8.7109	0.475	5.454	mg/L
Mg	24	5877275.811	28.69	1.9861	0.032	1.624	mg/L
K	39	5672891.845	25.03	0.8271	0.007	0.878	mg/L
Ca	43	177652.288	0.87	13.1910	0.428	3.246	mg/L
Fe	54	67564.888	0.14	0.0455	0.010	21.599	mg/L
Fe	57	14066.752	0.03	0.0202	0.002	8.032	mg/L
Sc-1	45	204962.607	204962.61				mg/L
Cl	35	117232.796	88428.42				mg/L
Kr	83	45.334	-9.33				mg/L
Br	81	23981.997	16806.91				mg/L
P	31	15605.211	7008.77				mg/L
S	34	356348.897	176848.82				mg/L
Sr	88	1585055.814	1584999.14				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		99.569			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		100.666			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		105.994			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		99.374			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1201076701PS WG388420-01

Sample Date/Time: Tuesday, January 31, 2012 17:58:23
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 61
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12976.864	0.00				ug/L
	Be	9	14251.547	0.08	47.5749	1.759	3.697	ug/L
	Al	27	243666.929	1.31	52.5823	4.019	7.643	ug/L
>	Sc	45	184347.848	184347.85				ug/L
	Ti	49	283.367	0.00	0.5001	0.082	16.304	ug/L
	V	51	407203.302	0.98	51.9363	1.145	2.204	ug/L
	Cr	52	352144.841	0.84	50.5581	0.582	1.151	ug/L
	Cr	53	42984.962	0.10	52.2179	0.735	1.408	ug/L
	Mn	55	527725.406	1.28	49.5024	1.348	2.722	ug/L
	Co	59	391793.207	0.95	48.4276	1.083	2.237	ug/L
	Ni	60	81295.290	0.20	48.5157	0.296	0.611	ug/L
	Cu	65	79980.205	0.19	49.5833	1.230	2.481	ug/L
	Zn	66	51867.005	0.13	53.8716	0.835	1.550	ug/L
>	Ge	72	411363.672	411363.67				ug/L
	As	75	50669.676	0.12	48.3917	0.829	1.713	ug/L
	Se	77	3644.798	0.01	45.6687	1.082	2.369	ug/L
	Se	82	4401.841	0.01	44.6412	0.506	1.133	ug/L
	Rb	85	6719.443	0.02				mg/L
	Y	89	263259.382	-16666.98				ug/L
	Rh	103	65.001	55.67				ug/L
	Mo	98	4650.062	0.01	1.7785	0.033	1.880	ug/L
	Ag	107	254084.261	0.67	48.2269	1.511	3.133	ug/L
	Cd	114	57071.314	0.15	46.7570	0.687	1.470	ug/L
>	In	115	381141.334	381141.33				ug/L
	Sn	118	719.631	0.00	0.0905	0.006	6.551	ug/L
	Sb	123	185602.183	0.49	47.9853	0.671	1.398	ug/L
	Ba	135	104771.516	0.20	71.1764	0.248	0.348	ug/L
	Ce	140	413.385	0.00				ug/L
>	Tb	159	523169.751	523169.75				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	303454.302	0.75	49.2487	0.146	0.296	ug/L
	Tl	205	748455.375	1.86	49.6122	0.815	1.642	ug/L
	Pb	206	259270.507	0.64	53.0560	1.007	1.898	ug/L
	Pb	207	223853.595	0.55	48.9446	0.969	1.979	ug/L
	Pb	208	1049655.951	2.60	50.6217	0.730	1.443	ug/L
	U	238	1691116.626	4.19	51.5583	0.294	0.570	ug/L
>	Bi	209	403409.787	403409.79				ug/L

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Na	23	34401954.992	187.11	7.9704	0.433	5.437	mg/L
Mg	24	5338241.809	28.98	2.0061	0.037	1.836	mg/L
K	39	5174553.269	25.56	0.8446	0.079	9.397	mg/L
Ca	43	164779.458	0.90	13.6153	0.667	4.900	mg/L
Fe	54	65061.009	0.17	0.0542	0.011	20.623	mg/L
Fe	57	14333.755	0.04	0.0283	0.005	18.423	mg/L
Sc-1	45	184347.848	184347.85				mg/L
Cl	35	96710.102	67905.73				mg/L
Kr	83	45.001	-9.67				mg/L
Br	81	27112.734	19937.64				mg/L
P	31	13869.682	5273.24				mg/L
S	34	332573.181	153073.10				mg/L
Sr	88	1480785.842	1480729.17				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		96.672			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		97.621			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		99.988			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.515			

Sample ID: L1201076701PS WG388420-01
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201076701PS WG388420-01
Report Date/Time: Tuesday, January 31, 2012 18:00:35
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Method 6020 - Summary Report

Sample ID: L1201076701SDL WG388420-02

Sample Date/Time: Tuesday, January 31, 2012 18:06:09
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 62
Method File: C:\elandata\Method\6020a.mth
Sample Description: 5

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13360.749	0.00				ug/L
	Be	9	8.667	0.00	-0.0174	0.025	144.315	ug/L
	Al	27	7236.482	0.03	1.0847	0.150	13.824	ug/L
>	Sc	45	179362.401	179362.40				ug/L
	Ti	49	110.012	0.00	0.0904	0.084	92.836	ug/L
	V	51	7351.404	0.01	0.6192	0.008	1.296	ug/L
	Cr	52	8939.576	0.01	0.2980	0.024	8.216	ug/L
	Cr	53	760.111	0.00	0.3665	0.099	27.047	ug/L
	Mn	55	1236.105	0.00	0.0673	0.001	2.002	ug/L
	Co	59	113.335	0.00	-0.0393	0.002	4.271	ug/L
	Ni	60	232.339	0.00	0.0955	0.010	10.770	ug/L
	Cu	65	307.009	0.00	0.0576	0.020	35.429	ug/L
	Zn	66	2322.349	0.01	2.1762	0.088	4.040	ug/L
>	Ge	72	428266.608	428266.61				ug/L
	As	75	141.166	0.00	0.2524	0.022	8.801	ug/L
	Se	77	70.667	-0.00	0.0207	0.299	1446.898	ug/L
	Se	82	31.290	0.00	0.1924	0.028	14.625	ug/L
	Rb	85	1356.458	0.00				mg/L
	Y	89	270524.637	-9401.72				ug/L
	Rh	103	17.000	7.67				ug/L
	Mo	98	877.548	0.00	0.3199	0.018	5.714	ug/L
	Ag	107	108.002	0.00	-0.0093	0.002	23.631	ug/L
	Cd	114	7.051	0.00	-0.0038	0.008	210.197	ug/L
>	In	115	388803.407	388803.41				ug/L
	Sn	118	316.139	0.00	-0.0074	0.002	29.324	ug/L
	Sb	123	355.671	0.00	0.0875	0.008	8.847	ug/L
	Ba	135	6903.953	0.01	4.7281	0.008	0.172	ug/L
	Ce	140	100.011	0.00				ug/L
>	Tb	159	515257.746	515257.75				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	68.668	0.00	0.0044	0.003	74.741	ug/L
	Tl	205	170.019	0.00	-0.0086	0.004	45.748	ug/L
	Pb	206	368.345	0.00	0.0063	0.007	105.078	ug/L
	Pb	207	323.676	0.00	0.0134	0.008	59.511	ug/L
	Pb	208	1467.065	0.00	0.0136	0.005	34.720	ug/L
	U	238	2521.743	0.01	0.0541	0.002	4.365	ug/L
>	Bi	209	412546.735	412546.74				ug/L

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Na	23	6954682.063	38.50	1.6398	0.061	3.728	mg/L
Mg	24	1127676.310	6.29	0.4313	0.020	4.601	mg/L
K	39	1579776.312	6.15	0.2023	0.006	2.851	mg/L
Ca	43	33571.475	0.19	2.8275	0.016	0.577	mg/L
Fe	54	24423.770	-0.05	-0.0275	0.001	3.077	mg/L
Fe	57	7964.682	0.00	-0.0009	0.004	438.337	mg/L
Sc-1	45	179362.401	179362.40				mg/L
Cl	35	37911.804	9107.43				mg/L
Kr	83	43.334	-11.33				mg/L
Br	81	11883.873	4708.78				mg/L
P	31	6064.241	-2532.20				mg/L
S	34	200024.740	20524.66				mg/L
Sr	88	298765.622	298708.95				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		100.645			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		99.584			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.476			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		98.701			

Sample ID: L1201076701SDL WG388420-02
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201076701SDL WG388420-02
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, January 31, 2012 18:13:56
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 5
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12459.335	-0.00				ug/L
	Be	9	15056.288	0.08	50.1842	2.576	5.133	ug/L
	Al	27	235009.906	1.26	50.4710	1.711	3.390	ug/L
>	Sc	45	184582.125	184582.13				ug/L
	Ti	49	49096.655	0.11	102.8506	5.270	5.124	ug/L
	V	51	421986.964	0.94	49.7104	1.274	2.563	ug/L
	Cr	52	371580.223	0.82	49.2318	1.100	2.235	ug/L
	Cr	53	44289.724	0.10	49.5621	3.850	7.768	ug/L
	Mn	55	576675.942	1.29	49.9783	0.833	1.667	ug/L
	Co	59	430840.164	0.97	49.2024	0.393	0.799	ug/L
	Ni	60	88341.958	0.20	48.7626	1.490	3.055	ug/L
	Cu	65	84922.559	0.19	48.6560	0.794	1.632	ug/L
	Zn	66	51926.431	0.12	49.7946	1.640	3.294	ug/L
>	Ge	72	445271.058	445271.06				ug/L
	As	75	56124.850	0.13	49.5415	1.263	2.550	ug/L
	Se	77	4435.181	0.01	51.4948	1.755	3.408	ug/L
	Se	82	5172.274	0.01	48.5041	0.656	1.352	ug/L
	Rb	85	2080.948	0.00				mg/L
	Y	89	284672.603	4746.24				ug/L
	Rh	103	20.667	11.33				ug/L
	Mo	98	267922.190	0.66	97.2371	2.578	2.651	ug/L
	Ag	107	284037.142	0.70	50.7274	1.058	2.086	ug/L
	Cd	114	65136.013	0.16	50.2896	2.503	4.978	ug/L
>	In	115	404434.437	404434.44				ug/L
	Sn	118	219023.270	0.54	49.2596	0.454	0.922	ug/L
	Sb	123	204764.746	0.51	49.8845	0.914	1.831	ug/L
	Ba	135	77262.076	0.14	50.4221	0.944	1.872	ug/L
	Ce	140	70.007	0.00				ug/L
>	Tb	159	544844.033	544844.03				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	316827.417	0.76	49.7407	0.690	1.387	ug/L
	Tl	205	792863.794	1.90	50.8249	0.405	0.796	ug/L
	Pb	206	259265.569	0.62	51.3507	0.508	0.988	ug/L
	Pb	207	239865.841	0.57	50.6898	0.635	1.252	ug/L
	Pb	208	1075018.171	2.57	50.1228	0.645	1.286	ug/L
	U	238	1761530.846	4.22	51.9499	0.490	0.944	ug/L
>	Bi	209	416986.187	416986.19				ug/L

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Na	23	21895823.396	118.64	5.0538	0.259	5.117	mg/L
Mg	24	13643044.402	74.00	5.1302	0.199	3.881	mg/L
K	39	29913874.797	159.56	5.2792	0.115	2.176	mg/L
Ca	43	63092.037	0.34	5.1807	0.205	3.965	mg/L
Fe	54	2636766.177	14.10	5.2602	0.084	1.600	mg/L
Fe	57	1157282.186	6.24	5.3739	0.265	4.922	mg/L
Sc-1	45	184582.125	184582.13				mg/L
Cl	35	25169.330	-3635.05				mg/L
Kr	83	47.667	-7.00				mg/L
Br	81	8152.005	976.91				mg/L
P	31	8264.824	-331.62				mg/L
S	34	182940.094	3440.02				mg/L
Sr	88	4464.977	4408.30				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	99.421				
Cr	52	98.464				
Cr	53					
Mn	55	99.957				
Co	59	98.405				
Ni	60	97.525				
Cu	65	97.312				
Zn	66	99.589				
Ge	72		104.641			
As	75	99.083				
Se	77					
Se	82	97.008				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	101.455				
Cd	114	100.579				
In	115		103.587			
Sn	118					
Sb	123	99.769				
Ba	135	100.844				
Ce	140					
Tb	159		104.131			
Ho	165					
Tl	203	99.481				
Tl	205					
Pb	206					
Pb	207					
Pb	208	100.246				
U	238	103.900				
Bi	209		99.763			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Tuesday, January 31, 2012 18:16:09
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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, January 31, 2012 18:21:33
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13293.959	-0.00				ug/L
	Be	9	13.333	0.00	-0.0079	0.001	7.581	ug/L
	Al	27	2917.182	-0.00	0.0395	0.061	155.511	ug/L
>	Sc	45	201738.949	201738.95				ug/L
	Ti	49	43.338	-0.00	-0.0625	0.054	87.053	ug/L
	V	51	2290.571	-0.00	-0.0311	0.006	17.797	ug/L
	Cr	52	7180.833	-0.00	-0.0452	0.024	53.120	ug/L
	Cr	53	560.075	0.00	0.0658	0.127	193.484	ug/L
	Mn	55	368.012	0.00	-0.0141	0.005	32.127	ug/L
	Co	59	112.002	0.00	-0.0408	0.003	7.921	ug/L
	Ni	60	46.001	0.00	-0.0135	0.003	24.683	ug/L
	Cu	65	166.670	0.00	-0.0375	0.013	33.418	ug/L
	Zn	66	101.002	-0.00	-0.0566	0.005	9.530	ug/L
>	Ge	72	472744.560	472744.56				ug/L
	As	75	-162.863	0.00	-0.0085	0.050	587.643	ug/L
	Se	77	84.000	0.00	0.1069	0.124	116.495	ug/L
	Se	82	6.844	0.00	-0.0468	0.115	246.869	ug/L
	Rb	85	24.334	-0.00				mg/L
	Y	89	309644.356	29718.00				ug/L
	Rh	103	13.000	3.67				ug/L
	Mo	98	101.344	0.00	0.0214	0.009	40.286	ug/L
	Ag	107	145.336	0.00	-0.0053	0.004	79.800	ug/L
	Cd	114	21.654	0.00	0.0060	0.005	84.354	ug/L
>	In	115	433201.770	433201.77				ug/L
	Sn	118	410.010	0.00	0.0046	0.002	47.024	ug/L
	Sb	123	256.500	0.00	0.0579	0.056	95.945	ug/L
	Ba	135	70.001	0.00	0.0063	0.016	247.859	ug/L
	Ce	140	33.337	-0.00				ug/L
>	Tb	159	587372.824	587372.82				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	91.335	0.00	0.0062	0.003	49.439	ug/L
	Tl	205	233.360	0.00	-0.0063	0.003	46.140	ug/L
	Pb	206	323.010	0.00	-0.0091	0.003	34.864	ug/L
	Pb	207	292.675	0.00	-0.0003	0.002	709.465	ug/L
	Pb	208	1306.720	0.00	-0.0006	0.002	355.958	ug/L
	U	238	333.678	0.00	-0.0124	0.004	34.797	ug/L
>	Bi	209	458226.752	458226.75				ug/L

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Na	23	35925.124	-0.04	-0.0018	0.001	27.525	mg/L
Mg	24	2567.402	0.01	-0.0046	0.000	9.570	mg/L
K	39	483967.881	-0.27	-0.0100	0.003	31.404	mg/L
Ca	43	136.681	-0.00	-0.0086	0.002	23.457	mg/L
Fe	54	40125.917	0.01	-0.0041	0.002	43.695	mg/L
Fe	57	7233.869	-0.00	-0.0082	0.001	7.713	mg/L
Sc-1	45	201738.949	201738.95				mg/L
Cl	35	26415.181	-2389.20				mg/L
Kr	83	56.334	1.67				mg/L
Br	81	8290.803	1115.71				mg/L
P	31	9217.799	621.35				mg/L
S	34	198158.046	18657.97				mg/L
Sr	88	116.679	60.01				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		111.097			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		110.955			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		112.259			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		109.630			

Sample ID: QC Std 7
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Tuesday, January 31, 2012 18:23:45
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: PBW X5 WG388352-02

Sample Date/Time: Tuesday, January 31, 2012 18:29:09
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 63
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12342.614	-0.00				ug/L
	Be	9	8.000	0.00	-0.0216	0.020	94.684	ug/L
	Al	27	1900.221	-0.00	-0.1248	0.081	64.957	ug/L
>	Sc	45	183396.269	183396.27				ug/L
	Ti	49	86.676	0.00	0.0387	0.088	226.928	ug/L
	V	51	2088.139	-0.00	-0.0360	0.011	29.515	ug/L
	Cr	52	6453.229	-0.00	-0.0765	0.029	37.542	ug/L
	Cr	53	416.719	-0.00	-0.0574	0.052	90.147	ug/L
	Mn	55	375.346	0.00	-0.0111	0.003	22.575	ug/L
	Co	59	64.001	0.00	-0.0454	0.000	0.272	ug/L
	Ni	60	226.005	0.00	0.0891	0.018	20.130	ug/L
	Cu	65	121.335	-0.00	-0.0566	0.005	9.407	ug/L
	Zn	66	365.678	0.00	0.2082	0.016	7.720	ug/L
>	Ge	72	439809.467	439809.47				ug/L
	As	75	-161.850	-0.00	-0.0186	0.040	215.023	ug/L
	Se	77	59.334	-0.00	-0.1181	0.101	85.270	ug/L
	Se	82	3.186	-0.00	-0.0794	0.102	128.177	ug/L
	Rb	85	31.000	0.00				mg/L
	Y	89	280987.954	1061.59				ug/L
	Rh	103	8.000	-1.33				ug/L
	Mo	98	21.082	-0.00	-0.0051	0.002	36.609	ug/L
	Ag	107	80.335	0.00	-0.0150	0.001	6.220	ug/L
	Cd	114	1.820	-0.00	-0.0080	0.002	25.409	ug/L
>	In	115	404868.818	404868.82				ug/L
	Sn	118	281.071	-0.00	-0.0184	0.003	14.493	ug/L
	Sb	123	97.785	0.00	0.0219	0.004	16.825	ug/L
	Ba	135	24.334	-0.00	-0.0196	0.001	3.112	ug/L
	Ce	140	36.670	-0.00				ug/L
>	Tb	159	535717.394	535717.39				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	37.000	0.00	-0.0010	0.002	211.237	ug/L
	Tl	205	63.340	0.00	-0.0158	0.002	10.119	ug/L
	Pb	206	252.673	0.00	-0.0172	0.004	25.491	ug/L
	Pb	207	212.005	0.00	-0.0117	0.004	33.243	ug/L
	Pb	208	988.700	0.00	-0.0099	0.000	3.744	ug/L
	U	238	52.667	0.00	-0.0197	0.000	2.222	ug/L
>	Bi	209	417123.437	417123.44				ug/L

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Na	23	30023.668	-0.05	-0.0024	0.000	8.837	mg/L
Mg	24	716.769	0.00	-0.0052	0.000	0.491	mg/L
K	39	467234.918	-0.12	-0.0053	0.002	34.691	mg/L
Ca	43	86.676	-0.00	-0.0117	0.001	8.959	mg/L
Fe	54	22313.847	-0.07	-0.0329	0.004	11.149	mg/L
Fe	57	6106.190	-0.01	-0.0104	0.002	19.620	mg/L
Sc-1	45	183396.269	183396.27				mg/L
Cl	35	23299.196	-5505.18				mg/L
Kr	83	55.334	0.67				mg/L
Br	81	7601.466	426.38				mg/L
P	31	5646.586	-2949.86				mg/L
S	34	172364.562	-7135.51				mg/L
Sr	88	116.679	60.01				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		103.357			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		103.698			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		102.386			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		99.796			

Sample ID: PBW X5 WG388352-02
Report Date/Time: Tuesday, January 31, 2012 18:31:21
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW X5 WG388352-02
Report Date/Time: Tuesday, January 31, 2012 18:31:21
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: F BLANK WG388323-01

Sample Date/Time: Tuesday, January 31, 2012 18:36:56
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 64
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13494.254	-0.00				ug/L
	Be	9	6.000	-0.00	-0.0296	0.007	23.599	ug/L
	Al	27	3083.912	0.00	0.0907	0.116	127.509	ug/L
>	Sc	45	196440.421	196440.42				ug/L
	Ti	49	66.674	0.00	-0.0091	0.033	355.873	ug/L
	V	51	2210.003	-0.00	-0.0302	0.015	48.295	ug/L
	Cr	52	7010.685	-0.00	-0.0324	0.009	29.047	ug/L
	Cr	53	476.728	-0.00	-0.0080	0.070	869.463	ug/L
	Mn	55	289.008	0.00	-0.0195	0.003	15.724	ug/L
	Co	59	56.001	-0.00	-0.0465	0.000	0.531	ug/L
	Ni	60	170.003	0.00	0.0545	0.002	2.944	ug/L
	Cu	65	139.669	-0.00	-0.0487	0.001	1.250	ug/L
	Zn	66	234.339	0.00	0.0723	0.026	36.449	ug/L
>	Ge	72	454866.911	454866.91				ug/L
	As	75	-168.673	-0.00	-0.0204	0.003	13.476	ug/L
	Se	77	63.334	-0.00	-0.0946	0.198	208.938	ug/L
	Se	82	-2.797	-0.00	-0.1369	0.063	45.717	ug/L
	Rb	85	20.667	-0.00				mg/L
	Y	89	296657.714	16731.36				ug/L
	Rh	103	8.000	-1.33				ug/L
	Mo	98	19.416	-0.00	-0.0060	0.001	10.970	ug/L
	Ag	107	64.334	-0.00	-0.0184	0.002	10.416	ug/L
	Cd	114	1.130	-0.00	-0.0086	0.005	61.843	ug/L
>	In	115	423445.061	423445.06				ug/L
	Sn	118	275.338	-0.00	-0.0225	0.000	1.379	ug/L
	Sb	123	81.535	0.00	0.0171	0.002	9.436	ug/L
	Ba	135	41.667	0.00	-0.0095	0.004	45.355	ug/L
	Ce	140	23.336	-0.00				ug/L
>	Tb	159	567091.804	567091.80				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	19.000	-0.00	-0.0040	0.001	16.519	ug/L
	Tl	205	36.670	-0.00	-0.0176	0.001	7.186	ug/L
	Pb	206	247.006	0.00	-0.0213	0.004	17.505	ug/L
	Pb	207	210.338	-0.00	-0.0148	0.001	9.388	ug/L
	Pb	208	988.700	-0.00	-0.0127	0.000	2.134	ug/L
	U	238	16.667	-0.00	-0.0208	0.000	0.779	ug/L
>	Bi	209	443730.689	443730.69				ug/L

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Na	23	28879.593	-0.07	-0.0031	0.001	16.316	mg/L
Mg	24	196.689	-0.00	-0.0054	0.000	0.727	mg/L
K	39	474995.595	-0.25	-0.0095	0.004	38.956	mg/L
Ca	43	113.346	-0.00	-0.0101	0.004	42.469	mg/L
Fe	54	37772.298	0.00	-0.0064	0.006	86.412	mg/L
Fe	57	6613.291	-0.01	-0.0101	0.001	14.188	mg/L
Sc-1	45	196440.421	196440.42				mg/L
Cl	35	25321.082	-3483.29				mg/L
Kr	83	53.334	-1.33				mg/L
Br	81	8432.933	1257.84				mg/L
P	31	8868.053	271.61				mg/L
S	34	193760.922	14260.85				mg/L
Sr	88	76.675	20.00				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		106.896			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		108.456			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		108.383			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		106.162			

Sample ID: F BLANK WG388323-01
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: F BLANK WG388323-01
Report Date/Time: Tuesday, January 31, 2012 18:39:08
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: F BLANK WG388323-02

Sample Date/Time: Tuesday, January 31, 2012 18:44:43
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 65
Method File: C:\elandata\Method\6020a.mth
Sample Description: 1

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13143.720	0.00				ug/L
	Be	9	4.000	-0.00	-0.0346	0.008	22.693	ug/L
	Al	27	2550.391	-0.00	0.0250	0.051	205.995	ug/L
>	Sc	45	181239.616	181239.62				ug/L
	Ti	49	50.005	0.00	-0.0363	0.025	68.198	ug/L
	V	51	2037.176	-0.00	-0.0348	0.012	34.429	ug/L
	Cr	52	6501.935	-0.00	-0.0422	0.017	40.960	ug/L
	Cr	53	463.393	0.00	0.0135	0.092	677.415	ug/L
	Mn	55	476.685	0.00	-0.0009	0.002	184.796	ug/L
	Co	59	45.001	-0.00	-0.0474	0.000	0.279	ug/L
	Ni	60	197.004	0.00	0.0763	0.008	10.890	ug/L
	Cu	65	140.336	-0.00	-0.0430	0.004	8.437	ug/L
	Zn	66	319.009	0.00	0.1723	0.003	1.736	ug/L
>	Ge	72	426394.753	426394.75				ug/L
	As	75	-163.749	-0.00	-0.0259	0.061	233.632	ug/L
	Se	77	67.334	-0.00	0.0019	0.112	5849.106	ug/L
	Se	82	-0.464	-0.00	-0.1172	0.144	123.179	ug/L
	Rb	85	27.000	-0.00				mg/L
	Y	89	275918.549	-4007.81				ug/L
	Rh	103	6.333	-3.00				ug/L
	Mo	98	13.598	-0.00	-0.0077	0.001	13.959	ug/L
	Ag	107	61.001	-0.00	-0.0182	0.001	6.456	ug/L
	Cd	114	6.184	0.00	-0.0045	0.002	41.769	ug/L
>	In	115	394419.853	394419.85				ug/L
	Sn	118	286.672	0.00	-0.0155	0.002	15.618	ug/L
	Sb	123	89.743	0.00	0.0205	0.003	13.269	ug/L
	Ba	135	45.334	0.00	-0.0051	0.008	151.580	ug/L
	Ce	140	26.669	-0.00				ug/L
>	Tb	159	524932.471	524932.47				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	26.000	-0.00	-0.0026	0.001	51.705	ug/L
	Tl	205	36.671	-0.00	-0.0174	0.003	17.869	ug/L
	Pb	206	240.673	0.00	-0.0187	0.004	20.549	ug/L
	Pb	207	224.339	0.00	-0.0083	0.002	24.971	ug/L
	Pb	208	964.698	-0.00	-0.0102	0.002	19.939	ug/L
	U	238	15.667	-0.00	-0.0208	0.000	0.886	ug/L
>	Bi	209	409900.701	409900.70				ug/L

Sample ID: F BLANK WG388323-02
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	Na	23	27347.598	-0.06	-0.0030	0.001	17.321	mg/L
	Mg	24	330.040	-0.00	-0.0053	0.000	0.320	mg/L
	K	39	450800.282	-0.17	-0.0069	0.007	98.860	mg/L
	Ca	43	253.363	0.00	0.0024	0.004	163.605	mg/L
	Fe	54	33705.443	-0.00	-0.0088	0.004	42.396	mg/L
	Fe	57	6303.013	-0.01	-0.0090	0.002	20.720	mg/L
>	Sc-1	45	181239.616	181239.62				mg/L
	Cl	35	22323.205	-6481.17				mg/L
	Kr	83	53.334	-1.33				mg/L
	Br	81	7213.126	38.04				mg/L
	P	31	7274.561	-1321.88				mg/L
	S	34	160958.650	-18541.43				mg/L
	Sr	88	106.678	50.01				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	Ti	49					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		100.205			
	As	75					
	Se	77					
	Se	82					
	Rb	85					
	Y	89					
	Rh	103					
	Mo	98					
	Ag	107					
	Cd	114					
>	In	115		101.022			
	Sn	118					
	Sb	123					
	Ba	135					
	Ce	140					
>	Tb	159		100.325			
	Ho	165					
	Tl	203					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
	U	238					
>	Bi	209		98.068			

Sample ID: F BLANK WG388323-02
Report Date/Time: Tuesday, January 31, 2012 18:46:56
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: F BLANK WG388323-02
Report Date/Time: Tuesday, January 31, 2012 18:46:56
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: LCSW X5 WG388352-03

Sample Date/Time: Tuesday, January 31, 2012 18:52:30
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 66
Method File: C:\elandata\Method\6020a.mth
Sample Description: 20

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	16366.241	-0.00				ug/L
	Be	9	524.683	0.00	1.2999	0.124	9.508	ug/L
	Al	27	1682451.406	7.02	280.7087	19.154	6.823	ug/L
>	Sc	45	239929.200	239929.20				ug/L
	Ti	49	17510.159	0.03	29.2667	1.274	4.354	ug/L
	V	51	293995.595	0.52	27.5921	0.356	1.290	ug/L
	Cr	52	134740.598	0.23	13.6166	0.238	1.750	ug/L
	Cr	53	29899.880	0.05	26.5831	0.675	2.541	ug/L
	Mn	55	196854.245	0.35	13.6191	0.289	2.125	ug/L
	Co	59	58492.506	0.10	5.2965	0.029	0.539	ug/L
	Ni	60	30191.565	0.05	13.2919	0.055	0.411	ug/L
	Cu	65	29889.145	0.05	13.6123	0.095	0.699	ug/L
	Zn	66	35654.840	0.06	27.2987	0.449	1.645	ug/L
>	Ge	72	556437.201	556437.20				ug/L
	As	75	14814.553	0.03	10.5501	0.326	3.091	ug/L
	Se	77	2348.998	0.00	21.3215	0.698	3.274	ug/L
	Se	82	1415.039	0.00	10.5248	0.180	1.713	ug/L
	Rb	85	725.372	0.00				mg/L
	Y	89	360262.416	80336.06				ug/L
	Rh	103	31.000	21.67				ug/L
	Mo	98	93166.600	0.18	26.9315	0.182	0.676	ug/L
	Ag	107	77816.138	0.15	11.0624	0.265	2.400	ug/L
	Cd	114	2169.383	0.00	1.3257	0.053	4.030	ug/L
>	In	115	507341.930	507341.93				ug/L
	Sn	118	368.275	0.00	-0.0156	0.001	5.731	ug/L
	Sb	123	157305.787	0.31	30.5416	0.375	1.229	ug/L
	Ba	135	52171.378	0.08	26.9349	0.510	1.894	ug/L
	Ce	140	33.337	-0.00				ug/L
>	Tb	159	687767.151	687767.15				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	111612.265	0.20	13.3357	0.249	1.869	ug/L
	Tl	205	279322.029	0.51	13.6088	0.284	2.089	ug/L
	Pb	206	93664.803	0.17	14.0654	0.635	4.516	ug/L
	Pb	207	85915.955	0.16	13.7842	0.238	1.729	ug/L
	Pb	208	385092.282	0.70	13.6322	0.286	2.096	ug/L
	U	238	26.000	-0.00	-0.0207	0.000	0.694	ug/L
>	Bi	209	547961.546	547961.55				ug/L

Sample ID: LCSW X5 WG388352-03
Report Date/Time: Tuesday, January 31, 2012 18:54:43
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Na	23	8107916.184	33.67	1.4341	0.106	7.403	mg/L
Mg	24	1045978.663	4.37	0.2982	0.027	9.184	mg/L
K	39	9935439.967	38.81	1.2830	0.076	5.953	mg/L
Ca	43	4841.891	0.02	0.2888	0.023	8.069	mg/L
Fe	54	126674.385	0.34	0.1191	0.008	6.469	mg/L
Fe	57	39373.396	0.12	0.1026	0.009	8.691	mg/L
Sc-1	45	239929.200	239929.20				mg/L
Cl	35	9311381.240	9282576.86				mg/L
Kr	83	50.334	-4.33				mg/L
Br	81	9694.311	2519.22				mg/L
P	31	13517.701	4921.26				mg/L
S	34	225770.918	46270.84				mg/L
Sr	88	373920.084	373863.41				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		130.765			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		129.945			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		131.446			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		131.099			

Sample ID: LCSW X5 WG388352-03
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	Na	23
	Mg	24
	K	39
	Ca	43
	Fe	54
	Fe	57
>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ge 72 Int Std for sam	Ge	72	Rerun for AFCEE sample
In 115 Int Std for sam	In	115	Rerun for AFCEE sample
Tb 159 Int Std for sam	Tb	159	Rerun for AFCEE sample
Bi 209 Int Std for sam	Bi	209	Rerun for AFCEE sample

Sample ID: LCSW X5 WG388352-03
Report Date/Time: Tuesday, January 31, 2012 18:54:43
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201076901 WG388352-01

Sample Date/Time: Tuesday, January 31, 2012 19:00:18
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 67
Method File: C:\elandata\Method\6020a.mth
Sample Description: 20

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11391.143	-0.00				ug/L
	Be	9	10.000	0.00	-0.0121	0.013	106.081	ug/L
	Al	27	302275.290	1.81	72.3468	6.945	9.599	ug/L
>	Sc	45	166432.025	166432.02				ug/L
	Ti	49	243.361	0.00	0.4116	0.140	33.960	ug/L
	V	51	3215.183	0.00	0.1301	0.005	3.688	ug/L
	Cr	52	7734.667	0.00	0.1843	0.038	20.793	ug/L
	Cr	53	1757.030	0.00	1.6477	0.375	22.764	ug/L
	Mn	55	69672.641	0.17	6.5741	0.350	5.320	ug/L
	Co	59	399.347	0.00	-0.0028	0.004	130.323	ug/L
	Ni	60	484.019	0.00	0.2554	0.031	12.068	ug/L
	Cu	65	1578.165	0.00	0.8653	0.046	5.372	ug/L
	Zn	66	15120.536	0.04	15.7849	0.954	6.044	ug/L
>	Ge	72	406947.886	406947.89				ug/L
	As	75	-24.873	0.00	0.1021	0.100	98.138	ug/L
	Se	77	100.001	0.00	0.4676	0.224	47.993	ug/L
	Se	82	14.247	0.00	0.0368	0.096	261.694	ug/L
	Rb	85	691.036	0.00				mg/L
	Y	89	262230.313	-17696.05				ug/L
	Rh	103	38.334	29.00				ug/L
	Mo	98	42.973	0.00	0.0043	0.002	49.657	ug/L
	Ag	107	80.668	0.00	-0.0137	0.002	11.839	ug/L
	Cd	114	184.255	0.00	0.1456	0.005	3.260	ug/L
>	In	115	371049.730	371049.73				ug/L
	Sn	118	816.040	0.00	0.1190	0.010	8.342	ug/L
	Sb	123	91.202	0.00	0.0224	0.002	8.174	ug/L
	Ba	135	10023.137	0.02	7.1730	0.542	7.552	ug/L
	Ce	140	2417.259	0.00				ug/L
>	Tb	159	494923.281	494923.28				ug/L
	Ho	165	30.003	0.00				ug/L
	Tl	203	156.336	0.00	0.0201	0.004	18.960	ug/L
	Tl	205	390.048	0.00	0.0075	0.003	39.509	ug/L
	Pb	206	1587.834	0.00	0.2771	0.026	9.308	ug/L
	Pb	207	1401.132	0.00	0.2676	0.016	5.925	ug/L
	Pb	208	6433.046	0.01	0.2725	0.018	6.721	ug/L
	U	238	662.033	0.00	0.0001	0.002	2404.077	ug/L
>	Bi	209	381488.699	381488.70				ug/L

Sample ID: L1201076901 WG388352-01
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Na	23	37755970.915	227.33	9.6836	0.822	8.485	mg/L
Mg	24	246026.030	1.48	0.0975	0.009	9.300	mg/L
K	39	838048.641	2.38	0.0774	0.009	11.489	mg/L
Ca	43	66450.530	0.40	6.0648	0.399	6.575	mg/L
Fe	54	103848.947	0.44	0.1556	0.025	15.921	mg/L
Fe	57	42599.546	0.22	0.1820	0.016	8.775	mg/L
Sc-1	45	166432.025	166432.02				mg/L
Cl	35	415982.209	387177.83				mg/L
Kr	83	48.334	-6.33				mg/L
Br	81	9947.268	2772.18				mg/L
P	31	6752.075	-1844.37				mg/L
S	34	194493.711	14993.63				mg/L
Sr	88	69795.038	69738.37				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		95.635			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.036			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		94.590			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		91.271			

Sample ID: L1201076901 WG388352-01
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201076901 WG388352-01
Report Date/Time: Tuesday, January 31, 2012 19:02:31
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201076901S WG388352-04

Sample Date/Time: Tuesday, January 31, 2012 19:08:06
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 68
Method File: C:\elandata\Method\6020a.mth
Sample Description: 20

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14712.985	0.02				ug/L
	Be	9	455.346	0.00	1.6132	0.029	1.811	ug/L
	Al	27	1641998.115	9.73	389.2123	17.912	4.602	ug/L
>	Sc	45	168318.107	168318.11				ug/L
	Ti	49	14357.191	0.03	32.1922	2.411	7.489	ug/L
	V	51	236356.497	0.56	29.7544	2.606	8.757	ug/L
	Cr	52	108167.691	0.25	14.7288	1.030	6.996	ug/L
	Cr	53	23438.866	0.06	27.9533	2.736	9.789	ug/L
	Mn	55	230305.993	0.55	21.3847	1.716	8.024	ug/L
	Co	59	48158.069	0.12	5.8524	0.348	5.949	ug/L
	Ni	60	25033.304	0.06	14.7812	1.073	7.258	ug/L
	Cu	65	26100.731	0.06	15.9546	1.525	9.557	ug/L
	Zn	66	47289.587	0.11	48.6619	3.462	7.115	ug/L
>	Ge	72	414781.294	414781.29				ug/L
	As	75	13318.919	0.03	12.6971	0.741	5.836	ug/L
	Se	77	1955.563	0.00	23.8978	1.199	5.019	ug/L
	Se	82	1298.294	0.00	12.9778	0.515	3.965	ug/L
	Rb	85	1270.443	0.00				mg/L
	Y	89	262187.220	-17739.14				ug/L
	Rh	103	30.334	21.00				ug/L
	Mo	98	78569.722	0.21	30.8219	3.065	9.943	ug/L
	Ag	107	63334.376	0.17	12.2242	1.246	10.196	ug/L
	Cd	114	2092.762	0.01	1.7387	0.099	5.701	ug/L
>	In	115	374151.185	374151.18				ug/L
	Sn	118	491.215	0.00	0.0380	0.010	25.747	ug/L
	Sb	123	136936.382	0.37	36.0680	2.350	6.516	ug/L
	Ba	135	52606.542	0.10	36.7597	2.979	8.104	ug/L
	Ce	140	2834.103	0.01				ug/L
>	Tb	159	508196.267	508196.27				ug/L
	Ho	165	30.003	0.00				ug/L
	Tl	203	90197.554	0.22	14.4956	0.980	6.758	ug/L
	Tl	205	223464.392	0.55	14.6474	0.705	4.815	ug/L
	Pb	206	77564.787	0.19	15.6700	1.573	10.037	ug/L
	Pb	207	72047.432	0.18	15.5547	0.997	6.407	ug/L
	Pb	208	323354.567	0.79	15.4013	1.227	7.965	ug/L
	U	238	654.366	0.00	-0.0015	0.002	122.664	ug/L
>	Bi	209	407299.149	407299.15				ug/L

Sample ID: L1201076901S WG388352-04
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Na	23	43569598.516	258.39	11.0070	0.562	5.109	mg/L
Mg	24	1082396.507	6.42	0.4404	0.020	4.476	mg/L
K	39	8948509.232	50.43	1.6677	0.075	4.496	mg/L
Ca	43	67824.122	0.40	6.0942	0.462	7.587	mg/L
Fe	54	153153.154	0.72	0.2614	0.007	2.823	mg/L
Fe	57	60580.609	0.32	0.2704	0.023	8.476	mg/L
Sc-1	45	168318.107	168318.11				mg/L
Cl	35	8246251.034	8217446.66				mg/L
Kr	83	57.001	2.33				mg/L
Br	81	7161.083	-14.01				mg/L
P	31	7600.809	-995.64				mg/L
S	34	181936.730	2436.65				mg/L
Sr	88	371396.373	371339.70				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		97.476			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.831			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		97.126			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		97.446			

Sample ID: L1201076901S WG388352-04
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201076901S WG388352-04
Report Date/Time: Tuesday, January 31, 2012 19:10:19
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Method 6020 - Summary Report

Sample ID: L1201076901SD WG388352-05

Sample Date/Time: Tuesday, January 31, 2012 19:15:54
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 69
Method File: C:\elandata\Method\6020a.mth
Sample Description: 20

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	15080.341	0.01				ug/L
	Be	9	467.346	0.00	1.3940	0.115	8.268	ug/L
	Al	27	1533962.027	7.67	306.7899	11.907	3.881	ug/L
>	Sc	45	200194.055	200194.06				ug/L
	Ti	49	15182.015	0.03	30.0118	1.817	6.056	ug/L
	V	51	252693.926	0.53	27.9748	0.996	3.560	ug/L
	Cr	52	116099.921	0.23	13.8416	0.520	3.755	ug/L
	Cr	53	25856.142	0.05	27.1146	0.711	2.621	ug/L
	Mn	55	227333.306	0.48	18.5695	0.712	3.834	ug/L
	Co	59	52320.168	0.11	5.5971	0.334	5.974	ug/L
	Ni	60	27171.023	0.06	14.1227	0.874	6.187	ug/L
	Cu	65	27647.171	0.06	14.9163	1.463	9.806	ug/L
	Zn	66	49541.849	0.10	44.8849	2.588	5.765	ug/L
>	Ge	72	472495.951	472495.95				ug/L
	As	75	14315.882	0.03	12.0239	0.835	6.941	ug/L
	Se	77	2100.265	0.00	22.5555	1.137	5.042	ug/L
	Se	82	1405.028	0.00	12.3703	0.670	5.413	ug/L
	Rb	85	1103.418	0.00				mg/L
	Y	89	307611.579	27685.22				ug/L
	Rh	103	27.334	18.00				ug/L
	Mo	98	82657.553	0.19	28.2409	1.353	4.790	ug/L
	Ag	107	68722.318	0.16	11.5487	0.656	5.679	ug/L
	Cd	114	2170.623	0.01	1.5710	0.045	2.858	ug/L
>	In	115	429497.795	429497.79				ug/L
	Sn	118	421.744	0.00	0.0076	0.003	44.262	ug/L
	Sb	123	145413.417	0.34	33.4433	2.644	7.906	ug/L
	Ba	135	56060.983	0.10	34.1207	2.381	6.977	ug/L
	Ce	140	1500.286	0.00				ug/L
>	Tb	159	585536.638	585536.64				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	100729.643	0.22	14.3823	0.546	3.800	ug/L
	Tl	205	251404.102	0.55	14.6459	0.744	5.077	ug/L
	Pb	206	85416.085	0.19	15.3376	0.474	3.093	ug/L
	Pb	207	78271.700	0.17	15.0159	0.564	3.756	ug/L
	Pb	208	352983.616	0.77	14.9456	0.569	3.805	ug/L
	U	238	609.362	0.00	-0.0049	0.001	11.782	ug/L
>	Bi	209	458711.400	458711.40				ug/L

Sample ID: L1201076901SD WG388352-05
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Na	23	48010564.044	240.20	10.2319	0.647	6.325	mg/L
Mg	24	1131622.142	5.66	0.3877	0.018	4.763	mg/L
K	39	9390726.452	44.41	1.4685	0.103	6.998	mg/L
Ca	43	72155.546	0.36	5.4827	0.332	6.050	mg/L
Fe	54	128166.668	0.45	0.1618	0.013	8.157	mg/L
Fe	57	49079.622	0.21	0.1728	0.013	7.601	mg/L
Sc-1	45	200194.055	200194.06				mg/L
Cl	35	8718928.978	8690124.60				mg/L
Kr	83	51.334	-3.33				mg/L
Br	81	7729.618	554.53				mg/L
P	31	7510.100	-1086.35				mg/L
S	34	199742.659	20242.58				mg/L
Sr	88	412176.475	412119.80				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		111.039			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		110.007			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		111.908			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		109.746			

Sample ID: L1201076901SD WG388352-05
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201076901SD WG388352-05
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201077501

Sample Date/Time: Tuesday, January 31, 2012 19:23:43
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 70
Method File: C:\elandata\Method\6020a.mth
Sample Description: 20

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	15347.515	-0.00				ug/L
	Be	9	6.667	-0.00	-0.0306	0.004	11.879	ug/L
	Al	27	162247.958	0.70	27.8811	1.184	4.245	ug/L
>	Sc	45	228525.904	228525.90				ug/L
	Ti	49	296.702	0.00	0.3901	0.152	39.031	ug/L
	V	51	3220.225	0.00	0.0428	0.015	34.312	ug/L
	Cr	52	9922.337	0.00	0.1982	0.029	14.789	ug/L
	Cr	53	3030.855	0.00	2.4288	0.074	3.039	ug/L
	Mn	55	21182.797	0.04	1.5421	0.040	2.586	ug/L
	Co	59	444.683	0.00	-0.0089	0.001	12.354	ug/L
	Ni	60	1247.439	0.00	0.5574	0.052	9.329	ug/L
	Cu	65	699.370	0.00	0.2197	0.013	6.014	ug/L
	Zn	66	11784.792	0.02	9.6379	0.310	3.212	ug/L
>	Ge	72	515703.216	515703.22				ug/L
	As	75	-94.401	0.00	0.0537	0.044	81.925	ug/L
	Se	77	354.008	0.00	2.7732	0.197	7.112	ug/L
	Se	82	235.248	0.00	1.7971	0.027	1.496	ug/L
	Rb	85	40363.049	0.08				mg/L
	Y	89	330687.390	50761.03				ug/L
	Rh	103	15.667	6.33				ug/L
	Mo	98	1185.475	0.00	0.3630	0.006	1.612	ug/L
	Ag	107	88.668	0.00	-0.0156	0.001	8.637	ug/L
	Cd	114	7.397	0.00	-0.0045	0.004	89.932	ug/L
>	In	115	462868.431	462868.43				ug/L
	Sn	118	303.472	-0.00	-0.0220	0.001	4.982	ug/L
	Sb	123	78.871	0.00	0.0149	0.003	17.095	ug/L
	Ba	135	21225.907	0.03	12.1845	0.295	2.418	ug/L
	Ce	140	1300.232	0.00				ug/L
>	Tb	159	617434.759	617434.76				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	353.344	0.00	0.0405	0.003	7.182	ug/L
	Tl	205	873.467	0.00	0.0279	0.007	26.318	ug/L
	Pb	206	9752.807	0.02	1.5796	0.053	3.327	ug/L
	Pb	207	8054.979	0.02	1.3955	0.064	4.557	ug/L
	Pb	208	38624.656	0.08	1.4802	0.043	2.929	ug/L
	U	238	70.668	0.00	-0.0195	0.000	0.832	ug/L
>	Bi	209	489504.615	489504.62				ug/L

Sample ID: L1201077501
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Na	23	86741684.033	379.56	16.1687	0.640	3.958	mg/L
Mg	24	23886.600	0.10	0.0018	0.000	25.500	mg/L
K	39	82488594.572	358.24	11.8540	0.278	2.341	mg/L
Ca	43	290338.337	1.27	19.2827	0.676	3.508	mg/L
Fe	54	70852.903	0.12	0.0375	0.001	2.721	mg/L
Fe	57	38291.629	0.13	0.1054	0.007	7.018	mg/L
Sc-1	45	228525.904	228525.90				mg/L
Cl	35	1060113.187	1031308.81				mg/L
Kr	83	49.001	-5.67				mg/L
Br	81	19772.105	12597.02				mg/L
P	31	7792.978	-803.47				mg/L
S	34	226462.289	46962.21				mg/L
Sr	88	289097.980	289041.31				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		121.193			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		118.554			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		118.004			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		117.113			

Sample ID: L1201077501
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ge 72 Int Std for sam	Ge	72	Rerun for AFCEE sample

Sample ID: L1201077501
Report Date/Time: Tuesday, January 31, 2012 19:25:56
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201077501PS WG388429-01

Sample Date/Time: Tuesday, January 31, 2012 19:31:30
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 71
Method File: C:\elandata\Method\6020a.mth
Sample Description: 20

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11891.831	-0.00				ug/L
	Be	9	14823.840	0.09	52.5959	1.157	2.199	ug/L
	Al	27	342954.852	1.97	78.7412	3.053	3.877	ug/L
>	Sc	45	173079.648	173079.65				ug/L
	Ti	49	176.686	0.00	0.2599	0.119	45.899	ug/L
	V	51	403788.679	0.99	52.2982	2.580	4.934	ug/L
	Cr	52	359114.952	0.87	52.3821	1.972	3.765	ug/L
	Cr	53	43480.926	0.11	53.6334	3.045	5.677	ug/L
	Mn	55	569413.100	1.40	54.2366	2.219	4.091	ug/L
	Co	59	418252.259	1.03	52.4803	2.542	4.843	ug/L
	Ni	60	85401.168	0.21	51.7566	2.727	5.268	ug/L
	Cu	65	83513.674	0.21	52.5962	1.970	3.745	ug/L
	Zn	66	60860.236	0.15	64.2021	3.125	4.867	ug/L
>	Ge	72	405377.887	405377.89				ug/L
	As	75	56021.090	0.14	54.2723	2.106	3.880	ug/L
	Se	77	4843.410	0.01	61.8992	4.526	7.312	ug/L
	Se	82	5670.847	0.01	58.4167	1.685	2.884	ug/L
	Rb	85	28465.537	0.07				mg/L
	Y	89	258353.805	-21572.55				ug/L
	Rh	103	31.667	22.33				ug/L
	Mo	98	876.434	0.00	0.3387	0.019	5.733	ug/L
	Ag	107	257698.244	0.70	50.9156	1.000	1.964	ug/L
	Cd	114	63005.932	0.17	53.7915	1.996	3.711	ug/L
>	In	115	365909.941	365909.94				ug/L
	Sn	118	317.473	0.00	-0.0027	0.001	21.778	ug/L
	Sb	123	202518.080	0.55	54.5233	1.757	3.223	ug/L
	Ba	135	88837.729	0.18	63.6278	1.597	2.509	ug/L
	Ce	140	963.487	0.00				ug/L
>	Tb	159	496183.166	496183.17				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	306097.105	0.79	51.7344	2.085	4.031	ug/L
	Tl	205	759221.456	1.96	52.3842	2.343	4.472	ug/L
	Pb	206	268314.141	0.69	57.2089	3.502	6.121	ug/L
	Pb	207	230056.062	0.59	52.3595	2.309	4.410	ug/L
	Pb	208	1070091.575	2.76	53.7447	2.766	5.147	ug/L
	U	238	1693474.143	4.37	53.7786	2.923	5.436	ug/L
>	Bi	209	387664.754	387664.75				ug/L

Sample ID: L1201077501PS WG388429-01
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⌈	Na	23	56967028.787	329.13	14.0205	0.559	3.986	mg/L
|	Mg	24	16317.596	0.09	0.0011	0.000	27.493	mg/L
|	K	39	57000440.939	326.57	10.8058	0.251	2.325	mg/L
|	Ca	43	190760.706	1.10	16.7289	0.382	2.286	mg/L
|	Fe	54	51600.954	0.11	0.0331	0.003	8.418	mg/L
|	Fe	57	27297.369	0.12	0.0968	0.002	1.578	mg/L
⌊>	Sc-1	45	173079.648	173079.65				mg/L
	Cl	35	767793.725	738989.35				mg/L
	Kr	83	59.001	4.33				mg/L
	Br	81	15520.443	8345.35				mg/L
	P	31	5779.338	-2817.11				mg/L
	S	34	182010.806	2510.73				mg/L
	Sr	88	195525.545	195468.87				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	6					
|	Be	9					
|	Al	27					
⌊>	Sc	45					
⌈	Ti	49					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Co	59					
|	Ni	60					
|	Cu	65					
|	Zn	66					
|>	Ge	72		95.266			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		93.720			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		94.831			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		92.748			

Sample ID: L1201077501PS WG388429-01
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201077501PS WG388429-01
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Approved: February 01, 2012

Method 6020 - Summary Report

Sample ID: L1201077501SDL WG388429-02

Sample Date/Time: Tuesday, January 31, 2012 19:39:17
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 72
Method File: C:\elandata\Method\6020a.mth
Sample Description: 100

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13811.438	-0.00				ug/L
	Be	9	6.667	-0.00	-0.0286	0.005	17.367	ug/L
	Al	27	20374.956	0.08	3.3894	0.314	9.274	ug/L
>	Sc	45	208324.848	208324.85				ug/L
	Ti	49	83.342	0.00	0.0191	0.053	275.934	ug/L
	V	51	2306.670	-0.00	-0.0333	0.014	42.135	ug/L
	Cr	52	7308.284	-0.00	-0.0426	0.034	79.809	ug/L
	Cr	53	1620.320	0.00	1.1772	0.199	16.928	ug/L
	Mn	55	2848.184	0.01	0.1850	0.004	2.250	ug/L
	Co	59	182.337	0.00	-0.0335	0.002	5.723	ug/L
	Ni	60	183.004	0.00	0.0559	0.007	12.016	ug/L
	Cu	65	183.004	0.00	-0.0298	0.003	10.395	ug/L
	Zn	66	2095.952	0.00	1.7257	0.085	4.916	ug/L
>	Ge	72	480561.108	480561.11				ug/L
	As	75	-89.407	0.00	0.0514	0.014	27.472	ug/L
	Se	77	114.001	0.00	0.4257	0.170	39.861	ug/L
	Se	82	40.247	0.00	0.2390	0.018	7.726	ug/L
	Rb	85	4770.094	0.01				mg/L
	Y	89	314150.061	34223.70				ug/L
	Rh	103	7.667	-1.67				ug/L
	Mo	98	151.158	0.00	0.0380	0.007	19.643	ug/L
	Ag	107	135.669	0.00	-0.0071	0.003	43.821	ug/L
	Cd	114	20.401	0.00	0.0054	0.004	74.959	ug/L
>	In	115	436851.205	436851.20				ug/L
	Sn	118	309.072	-0.00	-0.0174	0.004	20.775	ug/L
	Sb	123	156.453	0.00	0.0334	0.000	0.297	ug/L
	Ba	135	2583.097	0.00	1.5420	0.037	2.398	ug/L
	Ce	140	170.019	0.00				ug/L
>	Tb	159	581313.193	581313.19				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	179.671	0.00	0.0189	0.006	32.175	ug/L
	Tl	205	496.732	0.00	0.0092	0.007	72.003	ug/L
	Pb	206	1472.812	0.00	0.2017	0.005	2.510	ug/L
	Pb	207	1244.106	0.00	0.1860	0.007	4.031	ug/L
	Pb	208	5785.519	0.01	0.1926	0.005	2.765	ug/L
	U	238	329.344	0.00	-0.0125	0.002	14.972	ug/L
>	Bi	209	452645.847	452645.85				ug/L

Sample ID: L1201077501SDL WG388429-02
Report Date/Time: Tuesday, January 31, 2012 19:41:30
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⌈	Na	23	9683701.963	46.30	1.9722	0.069	3.523	mg/L
|	Mg	24	3594.473	0.02	-0.0042	0.000	0.473	mg/L
|	K	39	9876008.006	44.84	1.4828	0.069	4.678	mg/L
|	Ca	43	33166.154	0.16	2.4053	0.059	2.460	mg/L
|	Fe	54	22028.987	-0.08	-0.0387	0.002	6.417	mg/L
|	Fe	57	9709.970	0.01	0.0013	0.003	248.229	mg/L
⌊>	Sc-1	45	208324.848	208324.85				mg/L
	Cl	35	149539.579	120735.20				mg/L
	Kr	83	48.334	-6.33				mg/L
	Br	81	9162.404	1987.31				mg/L
	P	31	4696.011	-3900.43				mg/L
	S	34	192373.560	12873.48				mg/L
	Sr	88	33795.533	33738.86				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	6					
|	Be	9					
|	Al	27					
⌊>	Sc	45					
⌈	Ti	49					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Co	59					
|	Ni	60					
|	Cu	65					
|	Zn	66					
|>	Ge	72		112.934			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		111.890			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		111.101			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		108.295			

Sample ID: L1201077501SDL WG388429-02
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1201077501SDL WG388429-02
Report Date/Time: Tuesday, January 31, 2012 19:41:30
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, January 31, 2012 19:47:05
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 5
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	15364.191	-0.00				ug/L
	Be	9	17586.554	0.08	46.3715	0.645	1.391	ug/L
	Al	27	312702.417	1.33	53.1903	1.900	3.572	ug/L
>	Sc	45	232827.826	232827.83				ug/L
	Ti	49	61451.899	0.11	104.3290	1.252	1.200	ug/L
	V	51	523936.941	0.95	49.9949	1.117	2.235	ug/L
	Cr	52	458708.292	0.82	49.2505	0.645	1.309	ug/L
	Cr	53	54476.562	0.10	49.4488	2.351	4.755	ug/L
	Mn	55	716578.848	1.30	50.2826	0.371	0.738	ug/L
	Co	59	536043.651	0.97	49.5571	1.392	2.809	ug/L
	Ni	60	108632.773	0.20	48.4886	0.795	1.641	ug/L
	Cu	65	105129.110	0.19	48.7721	2.003	4.106	ug/L
	Zn	66	62925.733	0.11	48.8653	0.479	0.980	ug/L
>	Ge	72	549941.980	549941.98				ug/L
	As	75	67619.712	0.12	48.2854	0.453	0.939	ug/L
	Se	77	5466.459	0.01	51.3173	0.857	1.669	ug/L
	Se	82	6513.157	0.01	49.4298	0.852	1.724	ug/L
	Rb	85	2511.737	0.00				mg/L
	Y	89	349466.688	69540.33				ug/L
	Rh	103	31.000	21.67				ug/L
	Mo	98	327801.225	0.65	95.9520	1.136	1.184	ug/L
	Ag	107	346918.304	0.69	50.0522	1.433	2.863	ug/L
	Cd	114	76858.732	0.15	47.9242	2.434	5.079	ug/L
>	In	115	501211.398	501211.40				ug/L
	Sn	118	266286.628	0.53	48.3424	1.268	2.623	ug/L
	Sb	123	240276.905	0.48	47.2342	1.326	2.807	ug/L
	Ba	135	94595.875	0.14	50.0327	1.407	2.812	ug/L
	Ce	140	63.340	-0.00				ug/L
>	Tb	159	671966.511	671966.51				ug/L
	Ho	165	6.667	-0.00				ug/L
	Tl	203	401061.312	0.78	51.3239	1.599	3.116	ug/L
	Tl	205	976243.461	1.91	51.0280	3.334	6.534	ug/L
	Pb	206	316598.109	0.62	51.0888	1.690	3.308	ug/L
	Pb	207	300418.264	0.59	51.7630	1.306	2.524	ug/L
	Pb	208	1345205.691	2.63	51.1364	1.113	2.177	ug/L
	U	238	2050305.938	4.01	49.2904	1.587	3.220	ug/L
>	Bi	209	511903.067	511903.07				ug/L

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Na	23	28617830.309	122.71	5.2271	0.019	0.362	mg/L
Mg	24	17419074.704	74.79	5.1853	0.095	1.841	mg/L
K	39	37441499.343	158.52	5.2447	0.486	9.261	mg/L
Ca	43	78983.813	0.34	5.1420	0.165	3.211	mg/L
Fe	54	3327095.948	14.13	5.2699	0.395	7.503	mg/L
Fe	57	1464226.503	6.25	5.3798	0.066	1.235	mg/L
Sc-1	45	232827.826	232827.83				mg/L
Cl	35	32716.770	3912.39				mg/L
Kr	83	57.334	2.67				mg/L
Br	81	10023.363	2848.27				mg/L
P	31	14612.205	6015.76				mg/L
S	34	243461.075	63961.00				mg/L
Sr	88	5428.977	5372.30				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	99.990				
Cr	52	98.501				
Cr	53					
Mn	55	100.565				
Co	59	99.114				
Ni	60	96.977				
Cu	65	97.544				
Zn	66	97.731				
Ge	72		129.239			
As	75	96.571				
Se	77					
Se	82	98.860				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	100.104				
Cd	114	95.848				
In	115		128.374			
Sn	118					
Sb	123	94.468				
Ba	135	100.065				
Ce	140					
Tb	159		128.426			
Ho	165					
Tl	203	102.648				
Tl	205					
Pb	206					
Pb	207					
Pb	208	102.273				
U	238	98.581				
Bi	209		122.472			

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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ge 72 Int Std for QC S	Ge	72	Rerun for AFCEE QC
In 115 Int Std for QC S	In	115	Rerun for AFCEE QC
Tb 159 Int Std for QC	Tb	159	Rerun for AFCEE QC
Bi 209 Int Std for QC S	Bi	209	Rerun for AFCee QC

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, January 31, 2012 19:54:41
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12993.482	-0.00				ug/L
	Be	9	8.000	0.00	-0.0234	0.010	44.646	ug/L
	Al	27	2250.304	-0.00	-0.0779	0.037	47.220	ug/L
>	Sc	45	195315.763	195315.76				ug/L
	Ti	49	53.339	0.00	-0.0347	0.054	154.735	ug/L
	V	51	2078.572	-0.00	-0.0419	0.011	25.321	ug/L
	Cr	52	6889.916	-0.00	-0.0345	0.025	71.172	ug/L
	Cr	53	1136.858	0.00	0.7442	0.075	10.109	ug/L
	Mn	55	316.343	0.00	-0.0168	0.001	5.916	ug/L
	Co	59	81.335	0.00	-0.0435	0.000	1.138	ug/L
	Ni	60	33.667	-0.00	-0.0189	0.003	15.807	ug/L
	Cu	65	147.669	-0.00	-0.0430	0.005	12.644	ug/L
	Zn	66	87.335	-0.00	-0.0648	0.012	18.912	ug/L
>	Ge	72	448064.455	448064.46				ug/L
	As	75	-166.444	-0.00	-0.0208	0.023	111.054	ug/L
	Se	77	82.667	0.00	0.1439	0.296	205.590	ug/L
	Se	82	5.902	0.00	-0.0564	0.124	219.239	ug/L
	Rb	85	30.334	-0.00				mg/L
	Y	89	285244.880	5318.52				ug/L
	Rh	103	11.000	1.67				ug/L
	Mo	98	82.453	0.00	0.0165	0.003	19.547	ug/L
	Ag	107	103.335	0.00	-0.0114	0.000	1.183	ug/L
	Cd	114	1.708	-0.00	-0.0082	0.002	24.586	ug/L
>	In	115	414016.466	414016.47				ug/L
	Sn	118	376.009	0.00	0.0010	0.006	616.244	ug/L
	Sb	123	54.663	0.00	0.0111	0.001	7.166	ug/L
	Ba	135	47.667	0.00	-0.0054	0.004	72.280	ug/L
	Ce	140	13.335	-0.00				ug/L
>	Tb	159	559588.123	559588.12				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	88.335	0.00	0.0066	0.002	25.743	ug/L
	Tl	205	200.022	0.00	-0.0075	0.002	30.846	ug/L
	Pb	206	290.675	0.00	-0.0117	0.002	14.132	ug/L
	Pb	207	247.339	0.00	-0.0061	0.001	22.764	ug/L
	Pb	208	1127.041	0.00	-0.0053	0.000	8.631	ug/L
	U	238	160.336	0.00	-0.0167	0.000	1.088	ug/L
>	Bi	209	432508.810	432508.81				ug/L

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Na	23	30147.757	-0.06	-0.0028	0.001	22.625	mg/L
Mg	24	1020.165	0.00	-0.0051	0.000	1.054	mg/L
K	39	463858.210	-0.29	-0.0109	0.004	33.040	mg/L
Ca	43	186.688	0.00	-0.0045	0.006	125.084	mg/L
Fe	54	38579.434	0.01	-0.0045	0.002	34.228	mg/L
Fe	57	6823.485	-0.01	-0.0089	0.004	40.410	mg/L
Sc-1	45	195315.763	195315.76				mg/L
Cl	35	26822.463	-1981.91				mg/L
Kr	83	49.667	-5.00				mg/L
Br	81	7841.695	666.60				mg/L
P	31	9354.595	758.15				mg/L
S	34	181084.078	1584.00				mg/L
Sr	88	80.008	23.34				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		105.297			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		106.041			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		106.948			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		103.477			

Sample ID: QC Std 7
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Tuesday, January 31, 2012 19:56:53
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Method 6020 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, January 31, 2012 20:02:19
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 9
Method File: C:\elandata\Method\6020a.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1
ELAN-ICP 200.8\6020 External Calibration

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14162.048	0.00				ug/L
	Be	9	9.333	0.00	-0.0188	0.004	18.906	ug/L
	Al	27	3567.431	0.00	0.2007	0.052	26.000	ug/L
>	Sc	45	193674.659	193674.66				ug/L
	Ti	49	70.007	0.00	0.0033	0.098	2953.233	ug/L
	V	51	5702.652	0.01	0.3941	0.024	6.160	ug/L
	Cr	52	13202.259	0.01	0.8372	0.052	6.231	ug/L
	Cr	53	1573.639	0.00	1.2650	0.169	13.336	ug/L
	Mn	55	6624.374	0.01	0.5338	0.004	0.669	ug/L
	Co	59	3824.918	0.01	0.3872	0.008	1.985	ug/L
	Ni	60	3130.620	0.01	1.7014	0.048	2.839	ug/L
	Cu	65	1601.170	0.00	0.7989	0.040	5.018	ug/L
	Zn	66	6956.977	0.02	6.5902	0.124	1.875	ug/L
>	Ge	72	442637.250	442637.25				ug/L
	As	75	353.460	0.00	0.4365	0.029	6.658	ug/L
	Se	77	115.334	0.00	0.5524	0.243	44.064	ug/L
	Se	82	47.236	0.00	0.3330	0.135	40.669	ug/L
	Rb	85	22.667	-0.00				mg/L
	Y	89	297311.507	17385.15				ug/L
	Rh	103	7.333	-2.00				ug/L
	Mo	98	60.896	0.00	0.0087	0.006	65.547	ug/L
	Ag	107	2620.772	0.01	0.4291	0.020	4.735	ug/L
	Cd	114	301.996	0.00	0.2187	0.013	6.136	ug/L
>	In	115	414295.955	414295.95				ug/L
	Sn	118	349.607	0.00	-0.0046	0.005	97.872	ug/L
	Sb	123	1756.779	0.00	0.4176	0.033	7.855	ug/L
	Ba	135	1210.767	0.00	0.7446	0.017	2.240	ug/L
	Ce	140	40.004	-0.00				ug/L
>	Tb	159	551854.314	551854.31				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	649.365	0.00	0.0916	0.005	4.944	ug/L
	Tl	205	1446.938	0.00	0.0696	0.010	14.706	ug/L
	Pb	206	2524.075	0.01	0.4149	0.002	0.578	ug/L
	Pb	207	2341.020	0.00	0.4209	0.006	1.419	ug/L
	Pb	208	10595.460	0.02	0.4207	0.002	0.572	ug/L
	U	238	15642.867	0.04	0.4234	0.003	0.700	ug/L
>	Bi	209	432741.738	432741.74				ug/L

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Na	23	31067.870	-0.05	-0.0025	0.001	24.240	mg/L
Mg	24	1750.360	0.01	-0.0048	0.000	2.040	mg/L
K	39	465077.476	-0.25	-0.0096	0.007	73.764	mg/L
Ca	43	156.684	-0.00	-0.0066	0.003	38.938	mg/L
Fe	54	37768.390	0.01	-0.0052	0.004	81.646	mg/L
Fe	57	7093.730	-0.00	-0.0072	0.004	60.230	mg/L
Sc-1	45	193674.659	193674.66				mg/L
Cl	35	26091.453	-2712.92				mg/L
Kr	83	49.667	-5.00				mg/L
Br	81	8231.419	1056.33				mg/L
P	31	10321.756	1725.31				mg/L
S	34	182449.068	2948.99				mg/L
Sr	88	120.013	63.34				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Al	27					
Sc	45					
Ti	49					
V	51	98.531				
Cr	52	104.654				
Cr	53					
Mn	55	106.769				
Co	59	96.810				
Ni	60	106.339				
Cu	65	99.860				
Zn	66	105.443				
Ge	72		104.022			
As	75	109.113				
Se	77					
Se	82	83.256				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	107.285				
Cd	114	109.369				
In	115		106.113			
Sn	118					
Sb	123	104.400				
Ba	135	99.277				
Ce	140					
Tb	159		105.470			
Ho	165					
Tl	203	114.497				
Tl	205					
Pb	206					
Pb	207					
Pb	208	105.185				
U	238	105.862				
Bi	209		103.533			

Sample ID: QC Std 8
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⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 8
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2.1.3 Metals CVAA Data (Mercury)

2.1.3.1 Summary Data

Login Number: L12010767
Department: Metals - AA
Analyst: Pierce Morris

METHOD

Preparation: SW-846 7470

Analysis: SW-846 7470

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG388471 - All acceptance criteria were met.

Matrix Spikes: WG388471 - Sample 01 was chosen by the client for MS/MSD analysis. Samples 02(MS) and 03(MSD) met all acceptance criteria.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 41638
Approved By: Maren Beery
Maren Beery

Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL-21-0112-1	**Prep Method:**	7470A	**Prep Date:**	01/31/2012 10:10
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/01/2012 12:42
Workgroup #:	WG388471	**Analyst:**	PDM	**Run Date:**	02/01/2012 13:23
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	HY.020112.132301
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6		U	0.000200	0.000100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL-21-0112-MS	**Prep Method:**	7470A	**Prep Date:**	01/31/2012 10:10
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/01/2012 12:42
Workgroup #:	WG388471	**Analyst:**	PDM	**Run Date:**	02/01/2012 13:26
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	HY.020112.132638
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6	0.00488		0.000222	0.000111

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL-21-0112-MSD	**Prep Method:**	7470A	**Prep Date:**	01/31/2012 10:10
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/01/2012 12:42
Workgroup #:	WG388471	**Analyst:**	PDM	**Run Date:**	02/01/2012 13:28
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	HY.020112.132825
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6	0.00484		0.000222	0.000111

2.1.3.2 QC Summary

Example Cold Vapor Mercury Calculations
Hydra AA Mercury Analyzer

1.0 Initial Calibration (ICAL) Parameters
The system performs linear regression from data consisting of a blank and five standards.

2.0 Calculating the concentration (C) of an element in water using data from run log and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted to Volume (mL)	40
Vi = Aliquot Volume (mL)	40
D = Manual dilution factor, if required (10X = 10)	1
Cx = Concentration of element in ppb (ug/L)	0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Ws} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted to volume (mL)	40
Ws = Aliquot weight (g)	0.6
D = Manual dilution factor	1
Cx = Concentration of element in ug/kg	6.67

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

1 Cx = Concentration calculated as received (wet basis)	6.67
Px = Percent solids of sample (%wt)	80
$Cdry$ = Concentration calculated as dry weight (ug/kg)	8.33

8.33 ug/kg = 0.00833 mg/kg

TCLP Non-Volatile

Analyst(s): Ruc / CAJ
Date: 01-30-12
Filter Lot #: 4614781
Microbac SOP: TCLP01 Rev #: 9

Analyst / Date		Analyst / Date	
Ruc 01-30-12		Ruc 01-31-12	
Time On	Temp On °C	Time Off	Temp Off °C
1500	22	0900	22

Agitator Speed 30 ± 2 rpm ☑

Jug #	Sample #	Tests	Method	Fluid #	Matrix *	% Solid	Pretest pH Initial	Pretest pH Final	Int. Wt. (g)	Fluid Vol. (mL)	Final extract pH
G14	01-735-03	SV	1311	F1-854	S/S	100	N/A*	N/A	100.00	2000	5
G15	04	Pest	↓		↓	↓	↓ *	↓	100.01	↓	5
G20	05	Herb			↓		↓ *	↓	100.02		5
G8	01-745-01	SV Pest Herb			S		8	2	100.01		5
D	01-763-14	ME (P.E.SX)			S/S		N/A*	N/A	100.01	↓	5
D	01-775-01			F2-286	S		14	14	25.08	500	13
D	01-769-01	(Spk) PH		F1-854	S/S	↓	8	2	100.03	2000	4
N/A	FBLK(1)	SV Pest Herb		↓	N/A	N/A	N/A	N/A	N/A		N/A
↓	FBLK(2)		↓	F2-286	↓	↓			↓		↓
D	01-769-02	PH	1312	SF2-216	S/S	100			100.02		8
N/A	FBLK	↓	↓	↓	N/A	N/A	↓	↓	N/A	↓	N/A

Ruc 01-30-12

*Matrix Code: (S = solid, sand, soil or sludge) (P = paint) (O = organic) (W = water or aqueous waste)
D = Disposable plastic jug
TCLP Pretest weight will be 5.0 g (± 0.1) unless otherwise noted.
Temperature shall be maintained at 23° ± 2 for 18 ± 2 hours unless otherwise noted.

Comments: * SV's 01-735-03-05 & 01-763-14 ARE P.E.SX's Requiring NO pretest and the use of TCLP FLUID #1 - Ruc

Peer Review By: _____

Microbac Laboratories Inc.
Metals Digest Log

Workgroup: WG388359
Analyst: REK
Spike Analyst: REK
Method: 7470A
Run Date: 01/31/2012 10:10
Hotblock Start Temp: 95.3 @ 09:50
Hotblock End Temp: 95.8 @ 11:50

SOP: ME404 Revison 13
Spike Solution: STD49822
Spike Witness: VC
H2SO4 Lot #: COA15776
Digestion Tubes Lot #: COA15882
HNO3 Lot #: COA15925
KMnO4 1:1 Lot #: RGT16964
K2S2O8 1:1 Lot #: RGT16987
Mercury Water ICV Lot #: STD49824
HG H2O STDS 10PPM Lot #: STD49830

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Spike Amount	Due Date
1	WG388359-02	BLANK	1	40 mL	40 mL		
2	WG388323-01	FBLK1	17	4 mL	40 mL		
3	WG388323-02	FBLK2	17	4 mL	40 mL		
4	WG388359-03	LCS	1	40 mL	40 mL	4 mL	
5	L12010763-14	SAMP	17	4 mL	40 mL		02/08/12
6	WG388359-01	REF	1	40 mL	40 mL		
7	L12010767-01	RS01	1	40 mL	40 mL		02/10/12
8	WG388359-04	MS	1	36 mL	40 mL	4 mL	
9	L12010767-02	MS01	1	36 mL	40 mL	4 mL	02/10/12
10	WG388359-05	MSD	1	36 mL	40 mL	4 mL	
11	L12010767-03	SD01	1	36 mL	40 mL	4 mL	02/10/12
12	L12010775-01	SAMP	17	4 mL	40 mL		02/03/12

Analyst: [signature]

Reviewer: [signature]

HB_DIG - Modified 09/30/2009
PDF ID: 2294418
Report generated: 01/31/2012 13:01

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HYDRA
Dataset: 020112E.PRN
Analyst1: PDM
Analyst2: N/A
Method: 7470
SOP: ME404
Rev: 13
Maintenance Log ID: 40496

Calibration Std: STD49830
ICV Std: STD49824
Post Spike: STD49830
ICSA: N/A
ICSAB: N/A
Int. Std:
CCV:
LLCCV:

Workgroups: 388471

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
4	HY.020112.123327	WG388579-01	Calibration Point		1		02/01/12 12:33
5	HY.020112.123530	WG388579-02	Calibration Point		1		02/01/12 12:35
6	HY.020112.123736	WG388579-03	Calibration Point		1		02/01/12 12:37
7	HY.020112.123919	WG388579-04	Calibration Point		1		02/01/12 12:39
8	HY.020112.124104	WG388579-05	Calibration Point		1		02/01/12 12:41
9	HY.020112.124259	WG388579-06	Calibration Point		1		02/01/12 12:42
10	HY.020112.124538	WG388579-07	Initial Calibration Verification		1		02/01/12 12:45
11	HY.020112.124719	WG388579-08	Initial Calib Blank		1		02/01/12 12:47
12	HY.020112.124901	WG388579-09	CCV		1		02/01/12 12:49
13	HY.020112.125046	WG388579-10	CCB		1		02/01/12 12:50
14	HY.020112.131224	WG388359-03	Laboratory Control S	40/40	1		02/01/12 13:12
15	HY.020112.131556	WG388359-02	Method/Prep Blank	40/40	1		02/01/12 13:15
16	HY.020112.131739	WG388323-01	TCLP Fluid Blank 1		1		02/01/12 13:17
17	HY.020112.131935	WG388323-02	TCLP Fluid Blank 2		1		02/01/12 13:19
18	HY.020112.132118	L12010763-14	D077-544		1		02/01/12 13:21
19	HY.020112.132301	WG388359-01	Reference Sample	40/40	1	L12010767-01	02/01/12 13:23
20	HY.020112.132456	WG388471-02	Post Digestion Spike		1	L12010767-01	02/01/12 13:24
21	HY.020112.132638	L12010767-02	MPL-21-0112-MS	36/40	1	WG388359-04	02/01/12 13:26
22	HY.020112.132825	L12010767-03	MPL-21-0112-MSD	36/40	1	WG388359-05	02/01/12 13:28
23	HY.020112.133027	WG388579-11	CCV		1		02/01/12 13:30
24	HY.020112.133209	WG388579-12	CCB		1		02/01/12 13:32
25	HY.020112.133351	L12010775-01	ALAN BLUE	4/40	1		02/01/12 13:33
26	HY.020112.133538	WG388471-01	Post Digestion Spike		1	L12010775-01	02/01/12 13:35
27	HY.020112.133733	L12010763-14	D077-544	4/40	2		02/01/12 13:37
28	HY.020112.133934	WG388471-03	Serial Dilution		10	L12010763-14	02/01/12 13:39
29	HY.020112.134121	WG388579-13	CCV		1		02/01/12 13:41
30	HY.020112.134327	WG388579-14	CCV		1		02/01/12 13:43
31	HY.020112.134513	WG388579-15	CCB		1		02/01/12 13:45

Comments

Seq.	Rerun	Dil.	Reason	Analytes
29			CCV immediately reanalyzed due to analyst error allowing the standard to run out.	

Page: 1 Approved: February 02, 2012

Microbac Laboratories Inc.

Data Checklist

Date: 01-FEB-2012
Analyst: PDM
Analyst: NA
Method: 7470
Instrument: HYDRA
Curve Workgroup: 388579
Runlog ID: 44951
Analytical Workgroups: 388471

Calibration/Linearity	X
ICV/CCV	X
ICV RSD <= 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0763,0767,0775
Client Forms	X
Level X	
Level 3	
Level 4	0763,0767
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	PDM
Secondary Reviewer	SLP
Comments	

Primary Reviewer: 02-FEB-2012 Pierce Morris

Secondary Reviewer: 02-FEB-2012 Sheri L. Babcock

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-08-2012 20:51:36

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 7470A

AAB#: WG388471

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12					01/31/12	3.8	28		02/01/12	4.9	28	
MPL-21-0112-MS	02	01/27/12					01/31/12	3.8	28		02/01/12	4.9	28	
MPL-21-0112-MSD	03	01/27/12					01/31/12	3.8	28		02/01/12	4.9	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2296556
Report generated 02/02/2012 09:19

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: HY.020112.131556
Prep Date: 01/31/12 10:10
Analyzed Date: 02/01/12 13:15
Analyst: PDM

Work Group: WG388471
Blank Sample ID: WG388359-02
Instrument ID: HYDRA
Method: 7470A

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388359-03	HY.020112.131224	02/01/12 13:12	01
MPL-21-0112-1	L12010767-01	HY.020112.132301	02/01/12 13:23	01
MPL-21-0112-MS	L12010767-02	HY.020112.132638	02/01/12 13:26	01
MPL-21-0112-MSD	L12010767-03	HY.020112.132825	02/01/12 13:28	01

Report Name: BLANK_SUMMARY
PDF File ID: 2296557
Report generated 02/02/2012 09:19

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 01/31/12 10:10 Sample ID: WG388359-02
Instrument ID: HYDRA Run Date: 02/01/12 13:15 Prep Method: 7470A
File ID: HY.020112.131556 Analyst: PDM Method: 7470A
Workgroup (AAB#): WG388471 Matrix: Water Units: mg/L
Contract #: Cal ID: HYDRA-01-FEB-12

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Mercury	0.000100	0.000200	0.000100	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name: BLANK
PDF ID: 2296558
02-FEB-2012 09:19

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Run Date: 02/01/2012 Sample ID: WG388359-03
Instrument ID: HYDRA Run Time: 13:12 Prep Method: 7470A
File ID: HY.020112.131224 Analyst: PDM Method: 7470A
Workgroup (AAB#): WG388471 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD49822 Cal ID: HYDRA-01-FEB-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Mercury	0.00400	0.00447	112	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2296561
Report generated: 02/02/2012 09:19

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: HYDRA- 01-FEB-12 Worknum: WG388471

Instrument ID: HYDRA Contract #: Prep Method: 7470A

Parent ID: L12010767-01 File ID: HY.020112.132301 Dil: 1 Method: 7470A

Sample ID: L12010767-02 MS File ID: HY.020112.132638 Dil: 1 Matrix: Water

Sample ID: L12010767-03 MSD File ID: HY.020112.132825 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Mercury	U	0.00444	0.00488	110	0.00444	0.00484	109	0.686	80 - 120	20	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2296562
Report generated 02/02/2012 09:19

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L12010767 **Worknum:** WG388471
Instrument ID: HYDRA **Method:** 7470A
Post Spike ID: WG388471-02 **File ID:** HY.020112.132456 **Dil:** 1 **Units:** ug/L
Sample ID: L12010767-01 **File ID:** HY.020112.132301 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
MERCURY	1.04		0	U	1	104.0	85 - 115	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 2296555
Report generated: 02/02/2012 09:19

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L12010767
Analytical Method: 7470A
ICAL Worknum: WG388579

Workgroup (AAB#): WG388471
Instrument ID: HYDRA
Initial Calibration Date: 02/01/2012 12:42

Analyte	WG388579-01		WG388579-02		WG388579-03		WG388579-04		WG388579-05		WG388579-06	
	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT
Mercury	0	0	0.200	802	1.00	3178	2.00	6984	5.00	15824	10.0	34871

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995

INT_CAL_HG_FU - Modified 03/06/2008
PDF File ID: 2296566
Report generated 02/02/2012 09:19

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L12010767
Analytical Method: 7470A
ICAL Worknum: WG388579

Workgroup (AAB#): WG388471
Instrument ID: HYDRA
Initial Calibration Date: 02/01/2012 12:42

Analyte	R	Q
Mercury	0.9990	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995

INT_CAL_HG_FU - Modified 03/06/2008
PDF File ID: 2296566
Report generated 02/02/2012 09:19

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L12010767
Instrument ID: HYDRA
File ID: HY.020112.124719
Workgroup (AAB#): WG388471
Matrix: WATER

Run Date: 02/01/2012
Run Time: 12:47
Analyst: PDM
Cal ID: HYDRA - 01-FEB-12

Sample ID: WG388579-08
Method: 7470A
Units: ug/L

Analytes	MDL	RDL	Concentration	Qualifier
MERCURY	.1	.2	.1	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 2296569
Report generated 02/02/2012 09:19

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Run Date: 02/01/2012
Sample ID: WG388579-10
Instrument ID: HYDRA
Run Time: 12:50
Method: 7470A
File ID: HY.020112.125046
Analyst: PDM
Units: ug/L
Workgroup (AAB#): WG388471
Cal ID: HYDRA - 01-FEB-12
Matrix: WATER
QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2296571
Report generated 02/02/2012 09:19

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Run Date: 02/01/2012
Sample ID: WG388579-12
Instrument ID: HYDRA
Run Time: 13:32
Method: 7470A
File ID: HY.020112.133209
Analyst: PDM
Units: ug/L
Workgroup (AAB#): WG388471
Cal ID: HYDRA - 01-FEB-12
Matrix: WATER
QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2296571
Report generated 02/02/2012 09:19

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)

(Alternate Source)

Login Number: L12010767 Run Date: 02/01/2012 Sample ID: WG388579-07

Instrument ID: HYDRA Run Time: 12:45 Method: 7470A

File ID: HY.020112.124538 Analyst: PDM Units: ug/L

Workgroup (AAB#): WG388471 Cal ID: HYDRA - 01-FEB-12

QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Mercury		2	2.15	108	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008

PDF File ID: 2296567

Report generated 02/02/2012 09:19

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 02/01/2012
Sample ID: WG388579-09
Instrument ID: HYDRA
Run Time: 12:49
Method: 7470A
File ID: HY.020112.124901
Analyst: PDM
QC Key: DOD4
Workgroup (AAB#): WG388471
Cal ID: HYDRA - 01-FEB-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Mercury, Total		0.00200	0.00212	mg/L	106	80 - 120		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2296570
Report generated 02/02/2012 15:46

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 02/01/2012
Sample ID: WG388579-11
Instrument ID: HYDRA
Run Time: 13:30
Method: 7470A
File ID: HY.020112.133027
Analyst: PDM
QC Key: DOD4
Workgroup (AAB#): WG388471
Cal ID: HYDRA - 01-FEB-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Mercury, Total		0.00200	0.00208	mg/L	104	80 - 120		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2296570
Report generated 02/02/2012 15:46

2.1.3.3 Raw Data

```
HYDRA 245.1/7470A/7471A        Folder:   020112E                      Page    1
                               Protocol: standard
                              ***POST-RUN REPORT***
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------------

*** Standard: 1 Rep: 1              Seq:  1       12:27:02 01 Feb 12   HG

Hg    .000    ppb      662

*** Standard: 2 Rep: 1              Seq:  2       12:28:46 01 Feb 12   HG

Hg    .200    ppb      378

*** Standard: 3 Rep: 1              Seq:  3       12:30:41 01 Feb 12   HG

Hg    1.00    ppb      3306

*** Standard: 1 Rep: 1              Seq:  4       12:33:27 01 Feb 12   HG

Hg    .000    ppb      0

*** Standard: 2 Rep: 1              Seq:  5       12:35:30 01 Feb 12   HG

Hg    .200    ppb      802

*** Standard: 3 Rep: 1              Seq:  6       12:37:36 01 Feb 12   HG

Hg    1.00    ppb      3178

*** Standard: 4 Rep: 1              Seq:  7       12:39:19 01 Feb 12   HG

Hg    2.00    ppb      6984

*** Standard: 5 Rep: 1              Seq:  8       12:41:04 01 Feb 12   HG

Hg    5.00    ppb      15824

*** Standard: 6 Rep: 1              Seq:  9       12:42:59 01 Feb 12   HG

Hg    10.0    ppb      34871

*** Check Standard: 2  Ck2ICV       Seq:  10      12:45:38 01 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          107.     2.15    2.00   ppb        .000

*** Check Standard: 3  Ck3ICB       Seq:  11      12:47:19 01 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          49.6     .099    .200   ppb        .000

*** Check Standard: 4  Ck4CCV       Seq:  12      12:49:01 01 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          106.     2.12    2.00   ppb        .000
```

Approved: February 02, 2012

Pierce Morris

Protocol: standard
POST-RUN REPORT

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------

*** Check Standard: 5  Ck5CCB       Seq:  13      12:50:46 01 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg         -18.7    -.037    .200   ppb        .000

*** Sample ID: WG38835903            Seq:  14     13:12:24 01 Feb 12   HG
                           LCSW 05
Hg    4.47    ppb       .000      4.47

================================================================================
*** Sample ID: WG38835902            Seq:  15     13:15:56 01 Feb 12   HG
                           PBW 05
Hg    .061    ppb       .000      .061
                                                                               =
================================================================================
*** Sample ID: WG38832301            Seq:  16     13:17:39 01 Feb 12   HG
                           TCLP BLANK
Hg    .081    ppb       .000      .081
                                                                               =
================================================================================
*** Sample ID: WG38832302            Seq:  17     13:19:35 01 Feb 12   HG
                           TCLP BLANK
Hg    .110    ppb       .000      .110
                                                                               =
================================================================================
*** Sample ID: 1201076314            Seq:  18     13:21:18 01 Feb 12   HG

Hg    14.7  H ppb       .000      14.7
                                                                               =
================================================================================
*** Sample ID: 1201076701            Seq:  19     13:23:01 01 Feb 12   HG
                           WG38835901
Hg   -.092    ppb       .000     -.092
                                                                               =
================================================================================
*** Sample ID: WG38847102            Seq:  20     13:24:56 01 Feb 12   HG
                           12101076701PS.9
Hg    1.04    ppb       .000      1.04
                                                                               =
================================================================================
*** Sample ID: WG38835904            Seq:  21     13:26:38 01 Feb 12   HG
                           1201076702S
Hg    4.39    ppb       .000      4.39
                                                                               =
================================================================================
*** Sample ID: WG38835905            Seq:  22     13:28:25 01 Feb 12   HG
                           1201076703SD
Hg    4.36    ppb       .000      4.36
                                                                               =
```

Approved: February 02, 2012

Pierce Morris

Protocol: standard

POST-RUN REPORT

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------

*** Check Standard: 4  Ck4CCV       Seq:  23      13:30:27 01 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          104.     2.08    2.00   ppb        .000
                                                                              =
*** Check Standard: 5  Ck5CCB       Seq:  24      13:32:09 01 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          44.1     .088    .200   ppb        .000
                                                                              =
*** Sample ID: 1201077501            Seq:  25     13:33:51 01 Feb 12   HG

Hg    .032    ppb       .000      .032
                                                                              =
==============================================================================
*** Sample ID: WG38847101            Seq:  26     13:35:38 01 Feb 12   HG
                         12101077501PS.9
Hg    1.17    ppb       .000      1.17
                                                                              =
==============================================================================
*** Sample ID: 1201076314            Seq:  27     13:37:33 01 Feb 12   HG
                         DL0.5
Hg    9.23    ppb       .000      9.23
                                                                              =
==============================================================================
*** Sample ID: WG38847103            Seq:  28     13:39:34 01 Feb 12   HG
                         1201076314DL0.1
Hg    1.99    ppb       .000      1.99
                                                                              =
*** Check Standard: 4  Ck4CCV       Seq:  29      13:41:21 01 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg      L   7.72     .154    2.00   ppb        .000
                                                                              =
*** Check Standard: 4  Ck4CCV       Seq:  30      13:43:27 01 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          103.     2.06    2.00   ppb        .000
                                                                              =
*** Check Standard: 5  Ck5CCB       Seq:  31      13:45:13 01 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          17.9     .036    .200   ppb        .000
                                                                              =
```

Standard ran out.

Approved: February 02, 2012

Pierce Morris

2.2 General Chemistry Data

2.2.1 Method 9056

2.2.1.1 Summary Data

Login Number: L12010767
Department: General Chromatography
Analyst: Jeremy Kinney

METHOD

Analysis SW-846 9056/300.0

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: Recoveries out of range were observed for the following analytes: Chloride. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor

will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 41599
Approved By: Jeremy Kinney

Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL-21-0112-1	**Prep Method:**	300.0	**Prep Date:**	01/31/2012 16:00
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	12/21/2011 13:49
Workgroup #:	WG388430	**Analyst:**	JBK	**Run Date:**	01/31/2012 21:31
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	I20131122131.21
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	12.2		0.200	0.100
Fluoride	16984-48-8	0.312		0.200	0.100
Sulfate	14808-79-8	45.0		1.00	0.500

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL-21-0112-MS	**Prep Method:**	300.0	**Prep Date:**	01/31/2012 16:00
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	12/21/2011 13:49
Workgroup #:	WG388430	**Analyst:**	JBK	**Run Date:**	01/31/2012 22:08
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	I20131122208.23
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	19.1		0.200	0.100
Fluoride	16984-48-8	7.52		0.200	0.100
Sulfate	14808-79-8	86.5		1.00	0.500

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL-21-0112-MSD	**Prep Method:**	300.0	**Prep Date:**	01/31/2012 16:00
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	12/21/2011 13:49
Workgroup #:	WG388430	**Analyst:**	JBK	**Run Date:**	01/31/2012 22:26
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	I20131122226.24
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	19.1		0.200	0.100
Fluoride	16984-48-8	7.48		0.200	0.100
Sulfate	14808-79-8	86.1		1.00	0.500

2.2.1.2 QC Summary Data

Example Calculations - Ion Chromatography

A. Methods 9056/300.0 (Quadratic with Offset)

1. Retrieve Curve Data from the ICAL Curve

c2 = the value of curve constant
c1= the curve slope
c0 = the curve offset

2. Obtain the area, y , from the instrument raw data

3. Calculate the concentration of the analyte, f(y), where:

$$f(y) = \frac{1}{2 * c_2} * \left(- c_1 \pm \sqrt{c_1^2 - 4 * c_2 * (c_0 - y)}\right)$$

Example Calculation:

Value of constant, c2, (curve):	0.0003
Value of curve constant, c1, (slope):	0.0869
Value of curve constant, c0, (offset):	-0.0103
Area of target analyte, y, (uS*min):	2.993
Calculated concentration, f(y), (mg/L):	31.1998864
or:	-40.1161215 *
Dilution factor (D):	1.00
Concentration of analyte in sample (mg/L):	31.200

* There are two possible solutions, but only one is valid.

B. Method 314.0 - Perchlorate (Linear)

Retrieve Curve Data from Linear Plot

c1 = the curve slope

Obtain the area, y , from the quantitation report

Calculate the concentration of the analyte, f(y), where:

f (y) = y / c1

Example Calculation:

Value of c1, slope:	0.0034
Area of target analyte, y:	0.083
Calculated concentration:	24.4117647
Dilution Factor:	1
Concentration in sample:	24.4117647

Microbac Laboratories Inc.

Instrument Run Log

Instrument: IC2 Dataset: 122111 ICAL IC2.SEQ
Analyst1: JBK Analyst2: NA
Method: 9056/300 SOP: IC01 Rev: 12

Maintenance Log ID: Syringe Filter Lot#: 00126569

Column 1 ID: AG14A-4MM Column 2 ID: AS14A-4MM
Workgroups: WG385452
Internal STD: NA Surrogate STD: NA Calibration STD
CCV STD: STD48131 LCS STD: STD48131 MS/MSD STD: STD48131

Comments: Linear regression ICAL for IC2.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	I21221111140.01	COLUMN RINSE	1	1		12/21/11 11:40
2	I21221111158.02	COLUMN RINSE	1	1		12/21/11 11:58
3	I21221111217.03	WG385452-01 STD \#6	1	1		12/21/11 12:17
4	I21221111235.04	WG385452-02 STD \#5	1	1		12/21/11 12:35
5	I21221111254.05	WG385452-03 STD \#4	1	1		12/21/11 12:54
6	I21221111312.06	WG385452-04 STD \#3	1	1		12/21/11 13:12
7	I21221111331.07	WG385452-05 STD \#2	1	1		12/21/11 13:31
8	I21221111349.08	WG385452-06 STD \#1	1	1		12/21/11 13:49
9	I21221111407.09	WG385452-07 ALT STD	1	1		12/21/11 14:07
10	I21221111426.10	LCR Test Level \#6	1	1		12/21/11 14:26
11	I21221111444.11	LCR Test Level \#2	1	1		12/21/11 14:44
12	I21221111503.12	LCR Test Level \#0	1	1		12/21/11 15:03
13	I21221111521.13	ANION CCV	1	1		12/21/11 15:21
14	I21221111539.14	ANION CCB	1	1		12/21/11 15:39
15	I21221111558.15	END	1	1		12/21/11 15:58

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Page: 1 Approved: 09-JAN-12

Microbac Laboratories Inc.

Instrument Run Log

Instrument: IC2 Dataset: 013112 IC2.SEQ
Analyst1: JBK Analyst2: NA
Method: 9056/300 SOP: IC1 Rev: 12

Maintenance Log ID: 40484 Syringe Filter Lot#: 00126569

Column 1 ID: AG14A-4MM Column 2 ID: AS14A-4MM
Workgroups: WG388430
Internal STD: NA Surrogate STD: NA Calibration STD NA
CCV STD: STD43577 8.0ML/100ML LCS STD: STD43577 8.0ML/100ML MS/MSD STD: STD43577 0.8ML/10ML

Comments: L12010576-03; L12010726-01; L12010686-01, -02, and -03 were all analyzed at dilutions only due to Cl concentrations greater than the ICAL. L12010710-01 was analyzed at a dilution only due to Cl concentrations greater than 200 ppm.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	I20131121522.01	ELUENT	1	1		01/31/12 15:22
2	I20131121541.02	DI WATER	1	1		01/31/12 15:41
3	I20131121559.03	WG388508-01 ANION CCV	1	1		01/31/12 15:59
4	I20131121618.04	WG388508-02 ANION CCB	1	1		01/31/12 16:18
5	I20131121636.05	WG388430-01 ANION BLANK	1	1		01/31/12 16:36
6	I20131121655.06	WG388430-02 ANION LCS	1	1		01/31/12 16:55
7	I20131121713.07	L12010730-01 (BR,SO4)	2	1		01/31/12 17:13
8	I20131121731.08	L12010799-01 (NO3)	1	1		01/31/12 17:31
9	I20131121750.09	L12010800-01 (NO3)	1	1		01/31/12 17:50
10	I20131121808.10	L12010576-01 (F,CL,SO4)	1	1		01/31/12 18:08
11	I20131121827.11	L12010576-02 (F,CL,SO4)	1	1		01/31/12 18:27
12	I20131121845.12	L12010576-03 1/4 (F,CL,SO4)	1	4		01/31/12 18:45
13	I20131121903.13	L12010726-01 1/15 (F,CL,SO4)	1	15		01/31/12 19:03
14	I20131121922.14	L12010726-02 (F,CL,SO4)	1	1		01/31/12 19:22
15	I20131121940.15	WG388508-03 ANION CCV	1	1		01/31/12 19:40
16	I20131121959.16	WG388508-04 ANION CCB	1	1		01/31/12 19:59
17	I20131122017.17	L12010686-01 1/4 (F,CL,SO4)	1	4		01/31/12 20:17
18	I20131122036.18	L12010686-02 1/4 (F,CL,SO4)	1	4		01/31/12 20:36
19	I20131122054.19	L12010686-03 1/10 (F,CL,SO4)	1	10		01/31/12 20:54
20	I20131122112.20	L12010710-01 1/25 (SO4)	2	25		01/31/12 21:12
21	I20131122131.21	L12010767-01 RS (F,CL,SO4)	1	1		01/31/12 21:31
22	I20131122149.22	WG388430-04 DUP 767-01	1	1		01/31/12 21:49
23	I20131122208.23	L12010767-02 MS	1	1		01/31/12 22:08
24	I20131122226.24	L12010767-03 SD	1	1		01/31/12 22:26
25	I20131122244.25	L12010515-10 (BR)	1	1		01/31/12 22:44
26	I20131122303.26	WG388430-08 DUP 515-10	1	1		01/31/12 23:03
27	I20131122321.27	WG388508-05 ANION CCV	1	1		01/31/12 23:21
28	I20131122340.28	WG388508-06 ANION CCB	1	1		01/31/12 23:40
29	I20201120747.29	WG388508-07 ANION CCV	1	1		02/01/12 07:47
30	I20201120806.30	WG388508-08 ANION CCB	1	1		02/01/12 08:06
31	I20201120824.31	L12010576-02 1/2 RR CL	1	2		02/01/12 08:24
32	I20201120842.32	WG388508-09 ANION CCV	1	1		02/01/12 08:42
33	I20201120901.33	WG388508-10 ANION CCB	1	1		02/01/12 09:01

Page: 1 Approved: 01-FEB-12

Microbac Laboratories Inc.

Instrument Run Log

Instrument: IC2 Dataset: 013112 IC2.SEQ
Analyst1: JBK Analyst2: NA
Method: 9056/300 SOP: IC1 Rev: 12

Maintenance Log ID: 40484 Syringe Filter Lot#: 00126569

Column 1 ID: AG14A-4MM Column 2 ID: AS14A-4MM
Workgroups: WG388430
Internal STD: NA Surrogate STD: NA NA
CCV STD: STD43577 8.0ML/100ML LCS STD: STD43577 8.0ML/100ML STD43577 0.8ML/10ML

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
34	I20201120919.34	END	1	1		02/01/12 09:19

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Page: 2 Approved: 01-FEB-12

Microbac Laboratories Inc.

Data Checklist

Date: 21-DEC-2012
Analyst: JBK
Analyst: NA
Method: 300/9056
Instrument: IC2
Curve Workgroup: NA
Runlog ID: 44440
Analytical Workgroups: WG3854752

ANALYTICAL	
System Performance Check	X
Eluent check (IC)/system pressure (HPLC)	X
Initial Calibration	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Continuing calibration blank (CCB) (IC)	X
Blanks	NA
TCL hits	NA
LCS/LCSD (Laboratory Control Sample)	ALT STD
Recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	NA
TCL hits	NA
Calculations & correct factors	NA
Compounds above calibration range	NA
Reruns	NA
Manual Integrations	NA
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	JBK
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	ECL

Primary Reviewer:
28-DEC-2011

Secondary Reviewer:
09-JAN-2012

CHECKLIST1 - Modified 03/05/2008
Generated: JAN-09-2012 16:53:16

Microbac Laboratories Inc.

Data Checklist

Date: 31-JAN-2012
Analyst: JBK
Analyst: NA
Method: 300/9056
Instrument: IC2
Curve Workgroup: NA
Runlog ID: 44933
Analytical Workgroups: WG388430 (01-576, 686, 767, 726, 710, 730, 799, 800, 515)

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	NA
Endrin/DDT breakdown (8081/MS)	NA
Pentachlorophenol/benzidine tailing (MS)	NA
Eluent check (IC)/system pressure (HPLC)	X
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	X
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	NA
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	X
Manual Integrations	NA
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	JBK
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
01-FEB-2012

Secondary Reviewer:
01-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-01-2012 12:56:15

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 300.0 AAB#: WG388430

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12					01/31/12	4.1	28		01/31/12	.2	28	
MPL-21-0112-MS	02	01/27/12					01/31/12	4.1	28		01/31/12	.3	28	
MPL-21-0112-MSD	03	01/27/12					01/31/12	4.1	28		01/31/12	.3	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2295881
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: I20131121636.05
Prep Date: 01/31/12 16:00
Analyzed Date: 01/31/12 16:36
Analyst: JBK

Work Group: WG388430
Blank Sample ID: WG388430-01
Instrument ID: IC2
Method: 300.0

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388430-02	I20131121655.06	01/31/12 16:55	01
MPL-21-0112-1	L12010767-01	I20131122131.21	01/31/12 21:31	01
DUP	WG388430-04	I20131122149.22	01/31/12 21:49	01
MPL-21-0112-MS	L12010767-02	I20131122208.23	01/31/12 22:08	01
MPL-21-0112-MSD	L12010767-03	I20131122226.24	01/31/12 22:26	01
DUP	WG388430-08	I20131122303.26	01/31/12 23:03	01

Report Name: BLANK_SUMMARY
PDF File ID: 2295882
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 01/31/12 16:00 Sample ID: WG388430-01
Instrument ID: IC2 Run Date: 01/31/12 16:36 Prep Method: 300.0
File ID: I20131121636.05 Analyst: JBK Method: 300.0
Workgroup (AAB#): WG388430 Matrix: Water Units: mg/L
Contract #: Cal ID: IC2-21-DEC-11

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Chloride	0.100	0.200	0.100	1	U
Fluoride	0.100	0.200	0.100	1	U
Sulfate	0.500	1.00	0.500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 2295883
01-FEB-2012 13:25

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Run Date: 01/31/2012 Sample ID: WG388430-02
Instrument ID: IC2 Run Time: 16:55 Prep Method: 300.0
File ID: I20131121655.06 Analyst: JBK Method: 300.0
Workgroup (AAB#): WG388430 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD48131 Cal ID: IC2-21-DEC-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Chloride	8.00	7.53	94.1	90 - 110	
Fluoride	8.00	7.64	95.5	90 - 110	
Sulfate	40.0	37.9	94.8	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2295884
Report generated: 02/01/2012 13:25

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: IC2- 21-DEC-11 Worknum: WG388430

Instrument ID: IC2 Contract #: Prep Method: 300.0

Parent ID: L12010767-01 File ID: I20131122131.21 Dil: 1 Method: 300.0

Sample ID: L12010767-02 MS File ID: I20131122208.23 Dil: 1 Matrix: Water

Sample ID: L12010767-03 MSD File ID: I20131122226.24 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Chloride	12.2	8.00	19.1	86.6	8.00	19.1	85.8	0.309	90 - 110	20	*
Fluoride	0.312	8.00	7.52	90.1	8.00	7.48	89.6	0.453	90 - 110	20	*
Sulfate	45.0	40.0	86.5	104	40.0	86.1	103	0.419	90 - 110	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2295885
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.

DUPLICATE (DUP)

Sample Ref: L12010767-01 Cal ID: IC2 - Worknum: WG388430

Instrument ID: IC2 Method: 9056

Sample ID: WG388430-03 File ID: I20131122131.21 Dil: 1 Matrix: WATER

Duplicate ID: WG388430-04 File ID: I20131122149.22 Dil: 1 Units: mg/L

Analyte	Sample	Duplicate	RPD	RPD Limit	Q
Chloride	12.2	11.8	3.78	20	
Fluoride	0.312	0.334	6.81	20	
Sulfate	45.0	45.2	0.395	20	

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

WG_DUP_DRYWT - Modified 03/06/2008

PDF File ID: 2295886

Report generated 02/01/2012 13:25

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L12010767
Analytical Method: 300.0
ICAL Workgroup: WG385452

Instrument ID: IC2
Initial Calibration Date: 21-DEC-11 13:49
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R^2)
Chloride		6.902	7.72	0.99700	
Fluoride		5.106	10.9	0.99800	
Sulfate		9.060	11.1	0.99700	

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

INT_CAL - Modified 03/06/2008
PDF File ID: 2295887
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L12010767

Analytical Method: 300.0

Instrument ID: IC2

Initial Calibration Date: 21-DEC-11 13:49

Column ID: F

Analyte	WG385452-01			WG385452-02			WG385452-03		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloride	24.0	3.84300000	6.245	12.0	1.80700000	6.641	8.00	1.19900000	6.672
Fluoride	24.0	5.38100000	4.460	12.0	2.54100000	4.723	8.00	1.68200000	4.756
Sulfate	120	15.6190000	7.683	60.0	7.06400000	8.494	40.0	4.62700000	8.645

INT_CAL - Modified 03/06/2008
PDF File ID: 2295887
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L12010767

Analytical Method: 300.0

Instrument ID: IC2

Initial Calibration Date: 21-DEC-11 13:49

Column ID: F

Analyte	WG385452-04			WG385452-05			WG385452-06		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloride	4.00	0.585000000	6.838	1.00	0.127000000	7.874	0.200	0.0280000000	7.143
Fluoride	4.00	0.765000000	5.229	1.00	0.185000000	5.405	0.200	0.0330000000	6.061
Sulfate	20.0	2.14500000	9.324	5.00	0.516000000	9.690	1.00	0.0950000000	10.53

INT_CAL - Modified 03/06/2008
PDF File ID: 2295887
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L12010767 Run Date: 12/21/2011 Sample ID: WG385452-07
Instrument ID: IC2 Run Time: 14:07 Method: 300.0
File ID: I21221111407.09 Analyst: JBK QC Key: DOD4
ICal Workgroup: WG385452 Cal ID: IC2 - 21-DEC-11

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Chloride		8.00	7.85	mg/L	6.88	1.80	10	
Fluoride		8.00	7.84	mg/L	4.94	2.10	10	
Sulfate		40.0	38.1	mg/L	9.05	4.80	10	

* Exceeds %D Limit

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 2295888
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388508-02
Instrument ID: IC2
Run Time: 16:18
Method: 300.0
File ID: I20131121618.04
Analyst: JBK
Units: mg/L
Workgroup (AAB#): WG388430
Cal ID: IC2 - 21-DEC-11
Matrix: WATER
QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Chloride	0.100	0.200	0.100	U
Fluoride	0.100	0.200	0.100	U
Sulfate	0.500	1.00	0.500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2295891
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Instrument ID: IC2
File ID: I20131121959.16
Workgroup (AAB#): WG388430
Matrix: WATER

Run Date: 01/31/2012
Run Time: 19:59
Analyst: JBK
Cal ID: IC2 - 21-DEC-11
QAPP: DOD4

Sample ID: WG388508-04
Method: 300.0
Units: mg/L

Analytes	MDL	RDL	Concentration	Qualifier
Chloride	0.100	0.200	0.100	U
Fluoride	0.100	0.200	0.100	U
Sulfate	0.500	1.00	0.500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2295891
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388508-06
Instrument ID: IC2
Run Time: 23:40
Method: 300.0
File ID: I20131122340.28
Analyst: JBK
Units: mg/L
Workgroup (AAB#): WG388430
Cal ID: IC2 - 21-DEC-11
Matrix: WATER
QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Chloride	0.100	0.200	0.100	U
Fluoride	0.100	0.200	0.100	U
Sulfate	0.500	1.00	0.500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2295891
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388508-01
Instrument ID: IC2
Run Time: 15:59
Method: 300.0
File ID: I20131121559.03
Analyst: JBK
QC Key: DOD4
Workgroup (AAB#): WG388430
Cal ID: IC2 - 21-DEC-11
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		8.00	7.58	mg/L	7.13	5.20	10	
Fluoride		8.00	7.70	mg/L	5.03	3.74	10	
Sulfate		40.0	38.5	mg/L	8.96	3.84	10	

* Exceeds %D Criteria

CCV - Modified 03/05/2008
PDF File ID: 2295890
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388508-03
Instrument ID: IC2
Run Time: 19:40
Method: 300.0
File ID: I20131121940.15
Analyst: JBK
QC Key: DOD4
Workgroup (AAB#): WG388430
Cal ID: IC2 - 21-DEC-11
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		8.00	7.50	mg/L	7.21	6.23	10	
Fluoride		8.00	7.69	mg/L	5.03	3.90	10	
Sulfate		40.0	38.2	mg/L	9.04	4.62	10	

* Exceeds %D Criteria

CCV - Modified 03/05/2008
PDF File ID: 2295890
Report generated 02/01/2012 13:25

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010767
Run Date: 01/31/2012
Sample ID: WG388508-05
Instrument ID: IC2
Run Time: 23:21
Method: 300.0
File ID: I20131122321.27
Analyst: JBK
QC Key: DOD4
Workgroup (AAB#): WG388430
Cal ID: IC2 - 21-DEC-11
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		8.00	7.54	mg/L	7.17	5.74	10	
Fluoride		8.00	7.72	mg/L	5.01	3.49	10	
Sulfate		40.0	38.2	mg/L	9.04	4.60	10	

* Exceeds %D Criteria

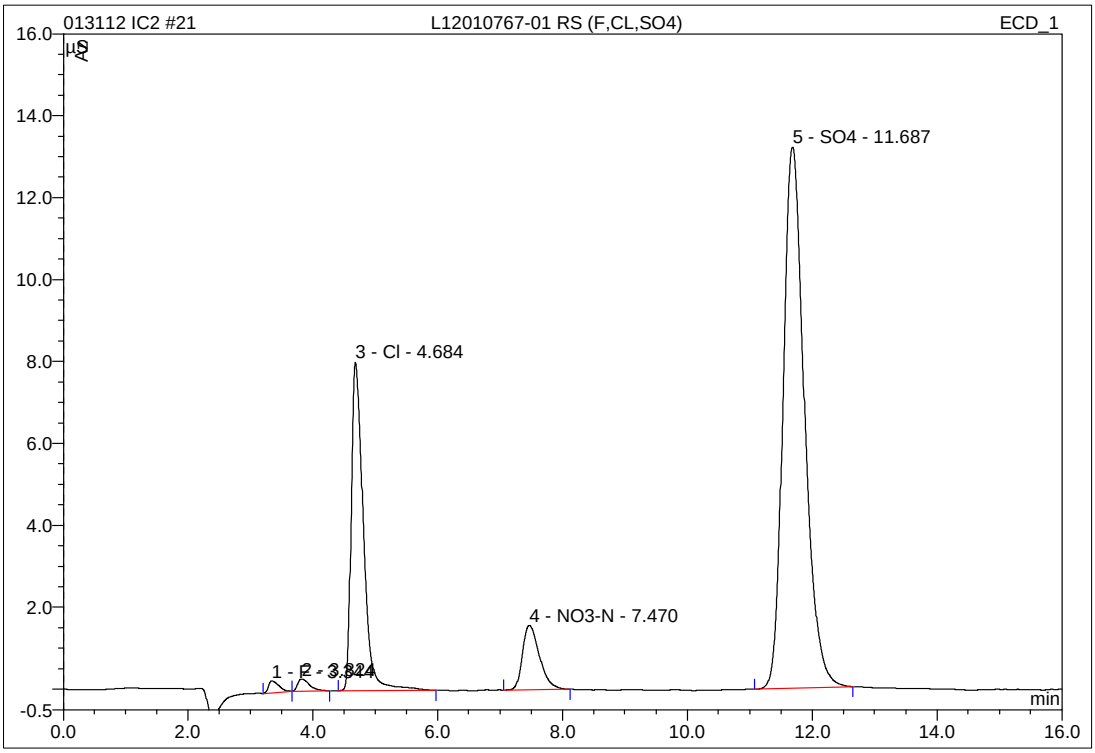
CCV - Modified 03/05/2008
PDF File ID: 2295890
Report generated 02/01/2012 13:25

2.2.1.3 Sample Data

21 L12010767-01 RS (F,CL,SO4)

1,1 JBK WG388430-03 REF

Sample Name:	**L12010767-01 RS (F,CL,SO4)**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 21:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.34	F	0.293	0.056	0.73	0.312	BMB
2	3.82	n.a.	0.294	0.065	0.85	n.a.	bMB
3	4.68	Cl	8.018	1.809	23.66	12.222	BMB
4	7.47	NO3-N	1.565	0.493	6.45	1.388	BMB
5	11.69	SO4	13.208	5.224	68.31	44.995	BMB
Total:			23.378	7.648	100.00	58.918	

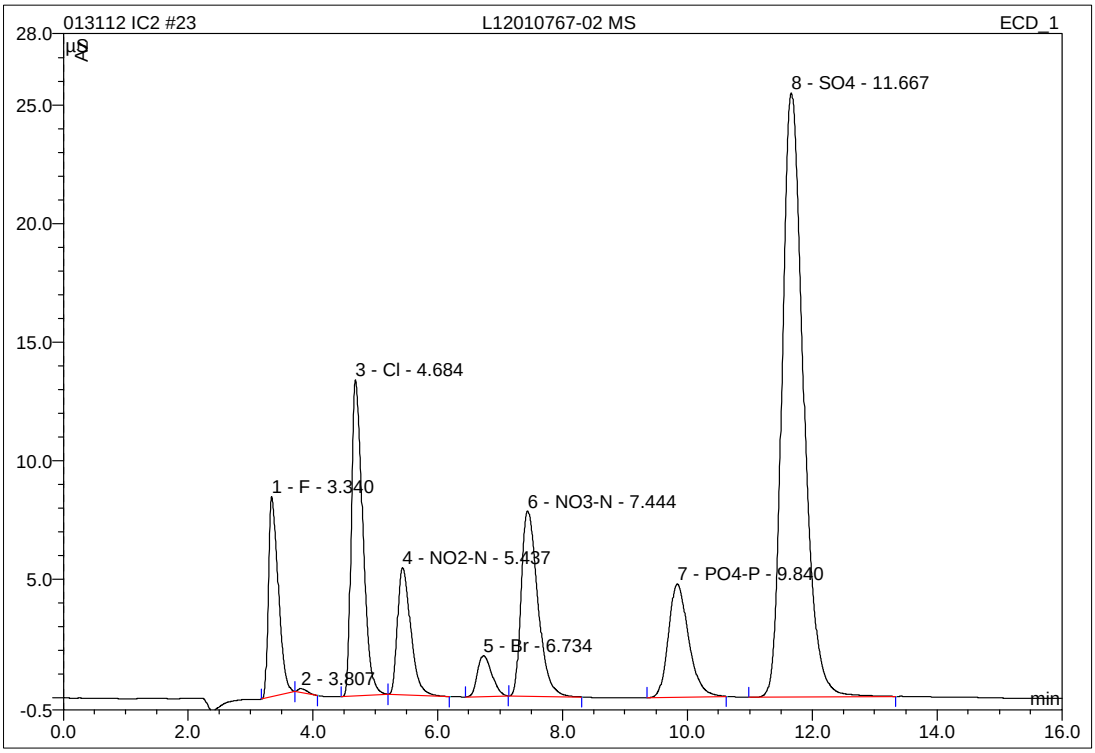
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

23 L12010767-02 MS

1,1 JBK WG388430-05 MS

Sample Name:	**L12010767-02 MS**	*Injection Volume:*	**25.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 22:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.34	F	8.448	1.553	7.59	7.516	BMb
2	3.81	n.a.	0.170	0.030	0.15	n.a.	bMB
3	4.68	Cl	13.338	2.836	13.87	19.148	BMb
4	5.44	NO2-N	5.353	1.318	6.44	4.541	bMB
5	6.73	Br	1.718	0.459	2.24	7.679	BMB
6	7.44	NO3-N	7.809	2.406	11.76	6.701	BMB
7	9.84	PO4-P	4.770	1.788	8.74	13.456	BMB
8	11.67	SO4	25.481	10.066	49.21	86.507	BMB
Total:			67.088	20.455	100.00	145.550	

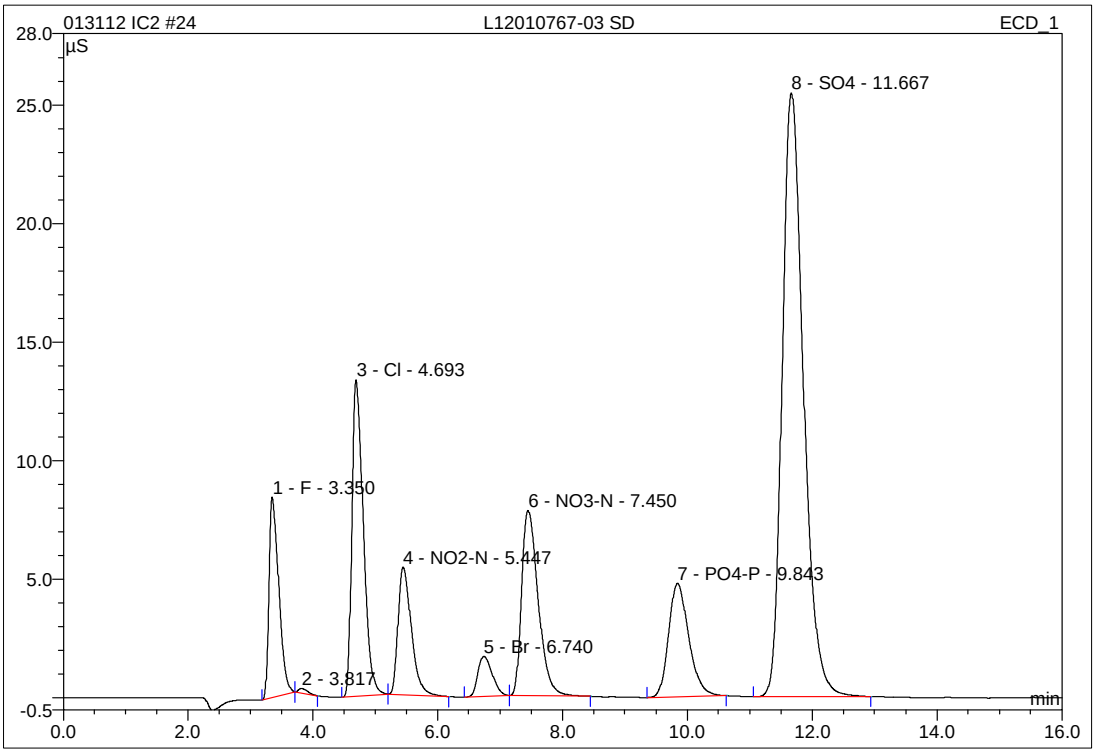
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

24 L12010767-03 SD

1,1 JBK WG388430-06 SD

Sample Name:	**L12010767-03 SD**	*Injection Volume:*	**25.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 22:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.35	F	8.448	1.546	7.58	7.482	BMb
2	3.82	n.a.	0.192	0.033	0.16	n.a.	bMB
3	4.69	Cl	13.341	2.827	13.86	19.089	BMb
4	5.45	NO2-N	5.366	1.329	6.52	4.582	bMB
5	6.74	Br	1.689	0.450	2.20	7.530	BMB
6	7.45	NO3-N	7.802	2.401	11.77	6.686	BMB
7	9.84	PO4-P	4.784	1.793	8.79	13.497	BMB
8	11.67	SO4	25.454	10.024	49.13	86.145	BMB
Total:			67.076	20.404	100.00	145.012	

IC/Integration

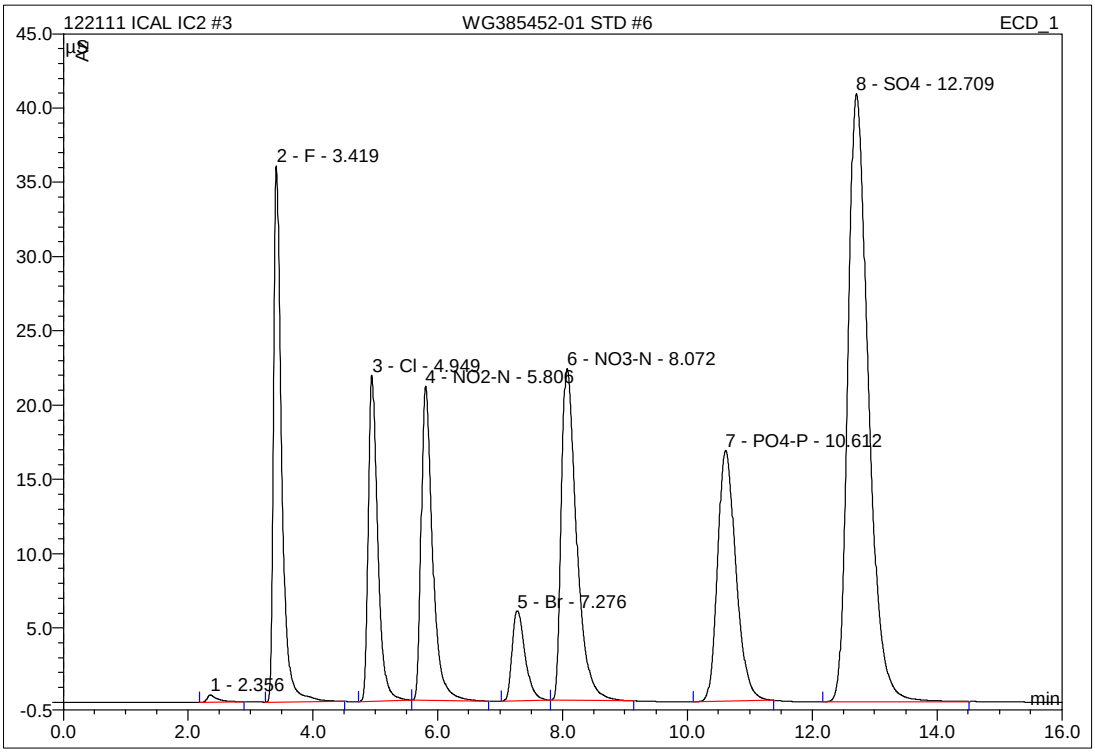
Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

2.2.1.4 Standards Data

3 WG385452-01 STD #6

1,1 JBK STD48131

Sample Name:	**WG385452-01 STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/21/2011 12:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	2.36	n.a.	0.480	0.092	0.21	n.a.	BMB
2	3.42	F	36.097	5.381	12.51	25.930	BMB
3	4.95	Cl	21.965	3.843	8.93	25.938	BMB
4	5.81	NO2-N	21.160	4.468	10.39	15.345	bMB
5	7.28	Br	6.075	1.468	3.41	24.458	BMB
6	8.07	NO3-N	22.316	6.374	14.82	17.724	BMB
7	10.61	PO4-P	16.878	5.762	13.40	43.273	BMB
8	12.71	SO4	40.931	15.619	36.32	134.117	BMB
Total:			165.902	43.008	100.00	286.784	

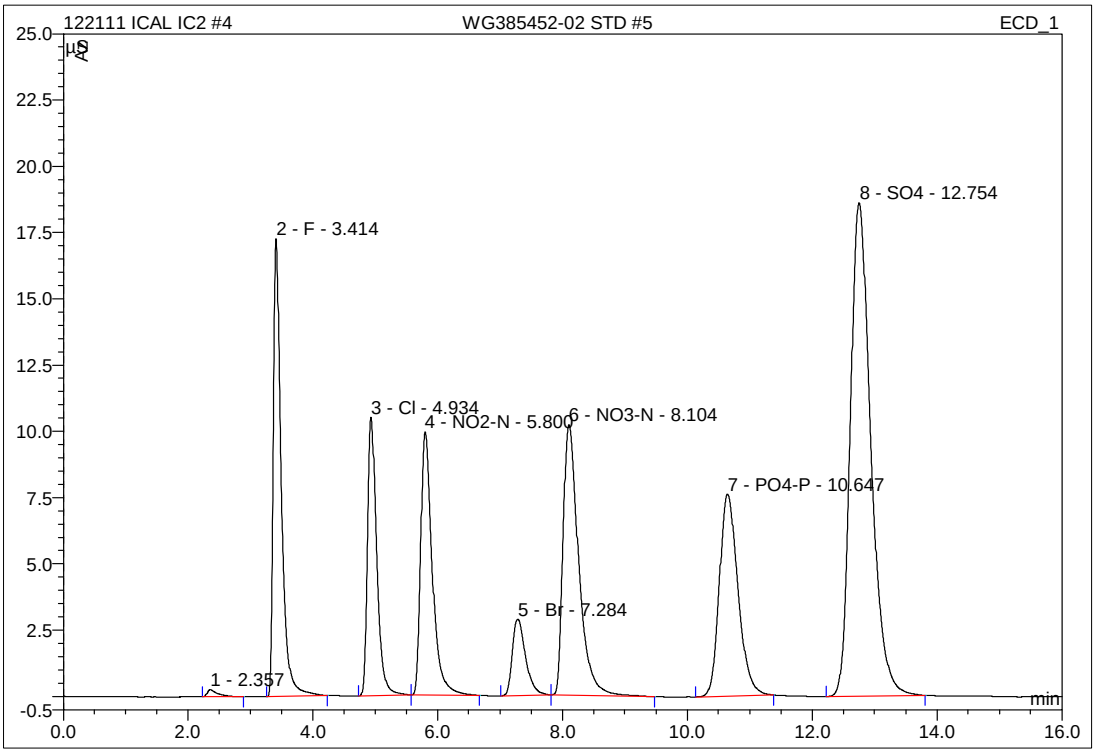
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

4 WG385452-02 STD #5

1,1 JBK STD48131

Sample Name:	**WG385452-02 STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/21/2011 12:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	2.36	n.a.	0.270	0.053	0.26	n.a.	BMB
2	3.41	F	17.277	2.541	12.76	12.269	BMB
3	4.93	Cl	10.509	1.807	9.07	12.208	BMb
4	5.80	NO2-N	9.922	2.133	10.71	7.336	bMB
5	7.28	Br	2.875	0.706	3.55	11.793	BMb
6	8.10	NO3-N	10.190	2.969	14.90	8.264	bMB
7	10.65	PO4-P	7.628	2.645	13.28	19.888	BMB
8	12.75	SO4	18.618	7.064	35.47	60.768	BMB
Total:			77.288	19.918	100.00	132.526	

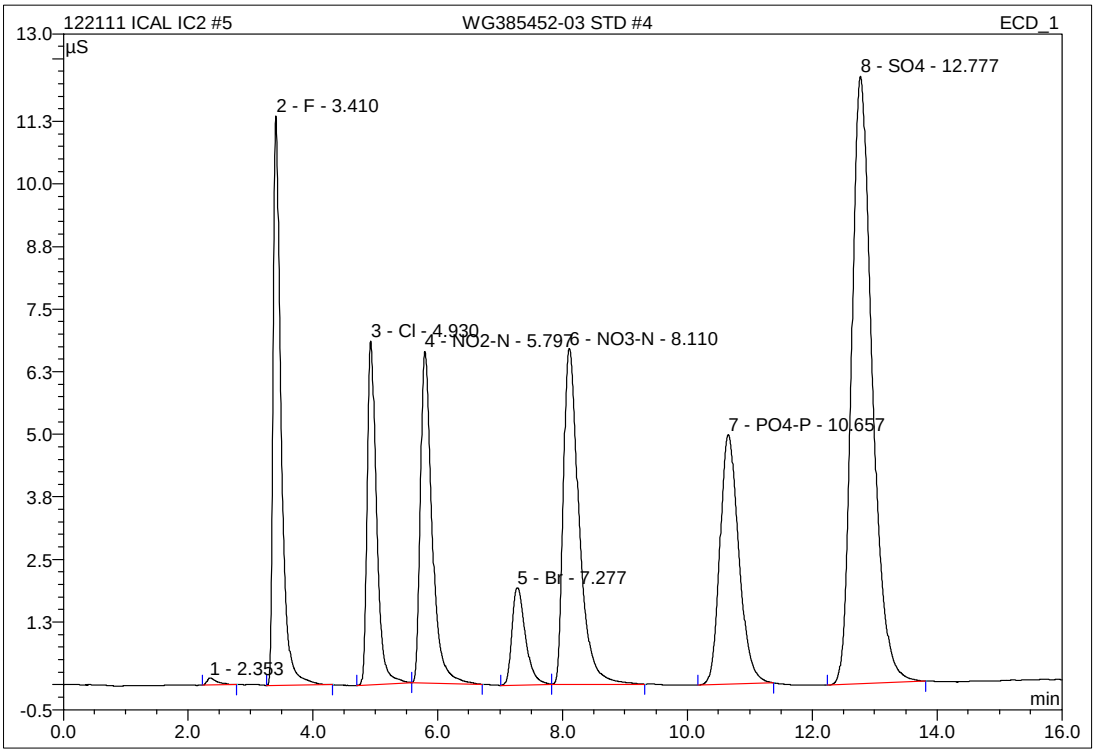
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

5 WG385452-03 STD #4

1,1 JBK STD48131

Sample Name:	**WG385452-03 STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/21/2011 12:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	2.35	n.a.	0.145	0.028	0.21	n.a.	BMB
2	3.41	F	11.364	1.682	12.77	8.138	BMB
3	4.93	Cl	6.868	1.199	9.11	8.106	BMB
4	5.80	NO2-N	6.623	1.435	10.89	4.943	BMB
5	7.28	Br	1.938	0.484	3.67	8.099	BMB
6	8.11	NO3-N	6.710	1.966	14.93	5.479	BMB
7	10.66	PO4-P	4.983	1.749	13.28	13.165	BMB
8	12.78	SO4	12.131	4.627	35.13	39.871	BMB
Total:			50.763	13.170	100.00	87.801	

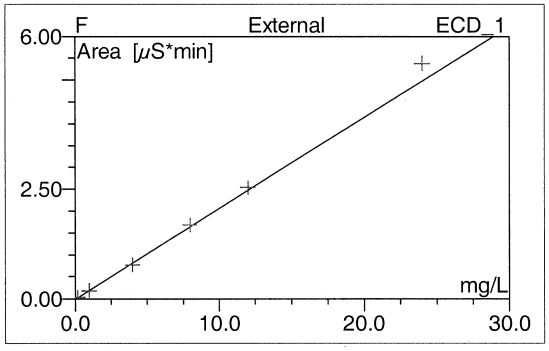
IC/Integration

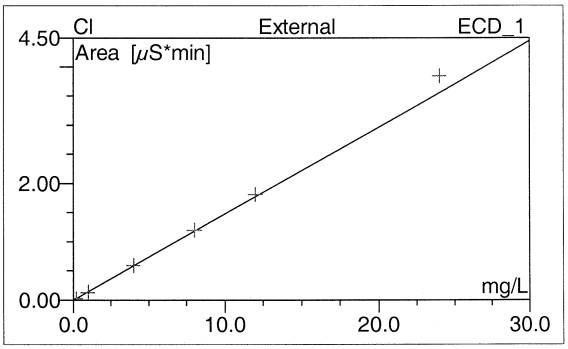
Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

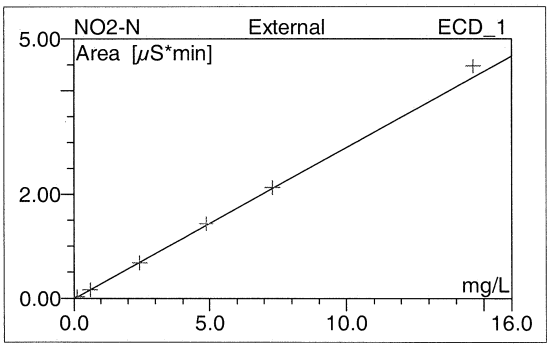
5 WG385452-03 STD #4

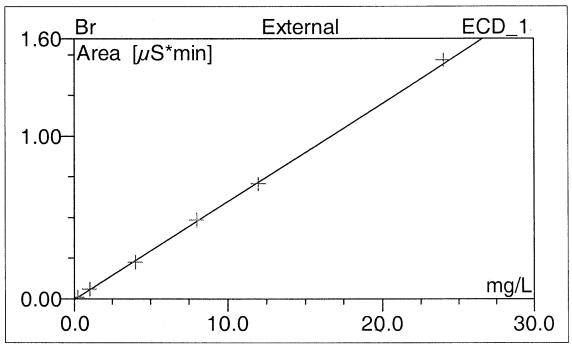
1,1 JBK STD48131

Sample Name:	**WG385452-03 STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**##############**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**









No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	2.35	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	3.41	F	XXLOff	6	99.8106	-0.0092	0.2079	0.0000
3	4.93	Cl	XXLOff	6	99.7324	-0.0023	0.1482	0.0000
4	5.80	NO2-N	XXLOff	6	99.9310	-0.0067	0.2916	0.0000
5	7.28	Br	XXLOff	6	99.9357	-0.0035	0.0602	0.0000
6	8.11	NO3-N	XXLOff	6	99.7758	-0.0064	0.3600	0.0000
7	10.66	PO4-P	XXLOff	6	99.7256	-0.0060	0.1333	0.0000
8	12.78	SO4	XXLOff	6	99.7187	-0.0237	0.1166	0.0000
Average:					99.8043	-0.0083	0.1883	0.0000

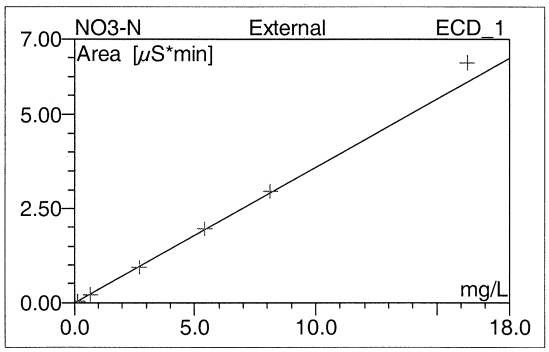
IC/Calibration(Batch)

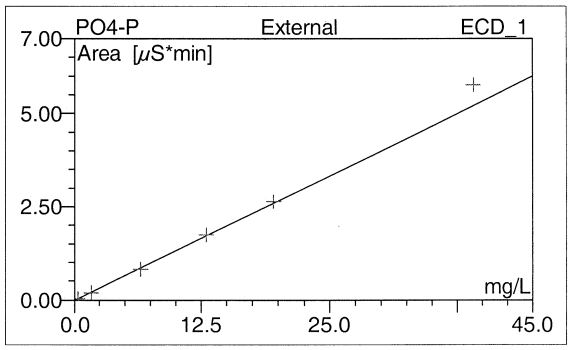
Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

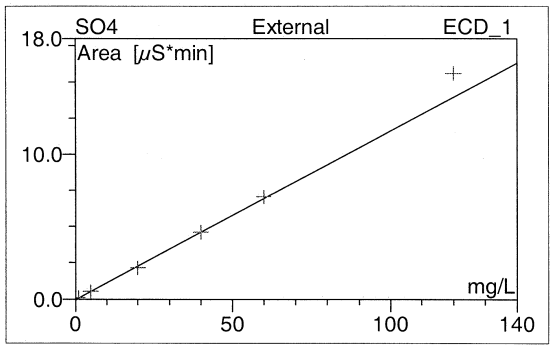
5 WG385452-03 STD #4

1,1 JBK STD48131

Sample Name:	**WG385452-03 STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**##############**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**







No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	2.35	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	3.41	F	XXLOff	6	99.8106	-0.0092	0.2079	0.0000
3	4.93	Cl	XXLOff	6	99.7324	-0.0023	0.1482	0.0000
4	5.80	NO2-N	XXLOff	6	99.9310	-0.0067	0.2916	0.0000
5	7.28	Br	XXLOff	6	99.9357	-0.0035	0.0602	0.0000
6	8.11	NO3-N	XXLOff	6	99.7758	-0.0064	0.3600	0.0000
7	10.66	PO4-P	XXLOff	6	99.7256	-0.0060	0.1333	0.0000
8	12.78	SO4	XXLOff	6	99.7187	-0.0237	0.1166	0.0000
Average:					99.8043	-0.0083	0.1883	0.0000

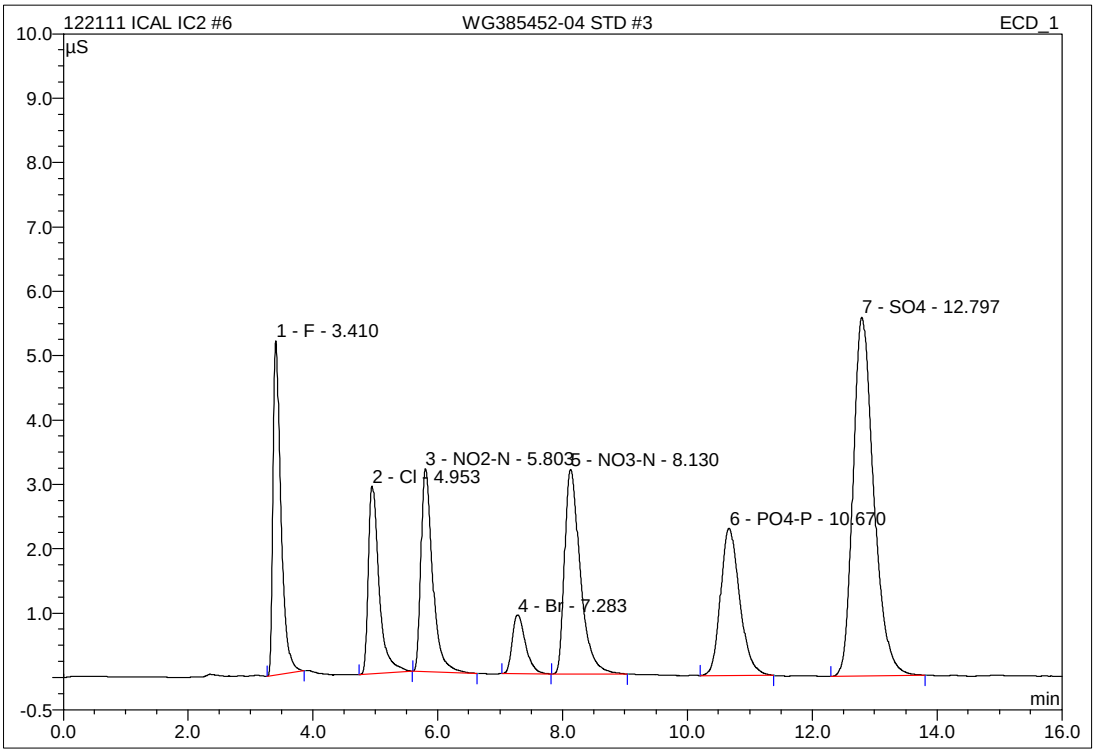
IC/Calibration(Batch)(2)

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

6 WG385452-04 STD #3

1,1 JBK STD48131

Sample Name:	**WG385452-04 STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/21/2011 13:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.41	F	5.190	0.765	12.45	3.723	BMB
2	4.95	Cl	2.921	0.585	9.52	3.961	BMB
3	5.80	NO2-N	3.152	0.681	11.08	2.358	BMB
4	7.28	Br	0.914	0.225	3.65	3.790	BMB
5	8.13	NO3-N	3.178	0.930	15.14	2.602	BMB
6	10.67	PO4-P	2.284	0.814	13.25	6.152	BMB
7	12.80	SO4	5.576	2.145	34.91	18.592	BMB
Total:			23.216	6.144	100.00	41.176	

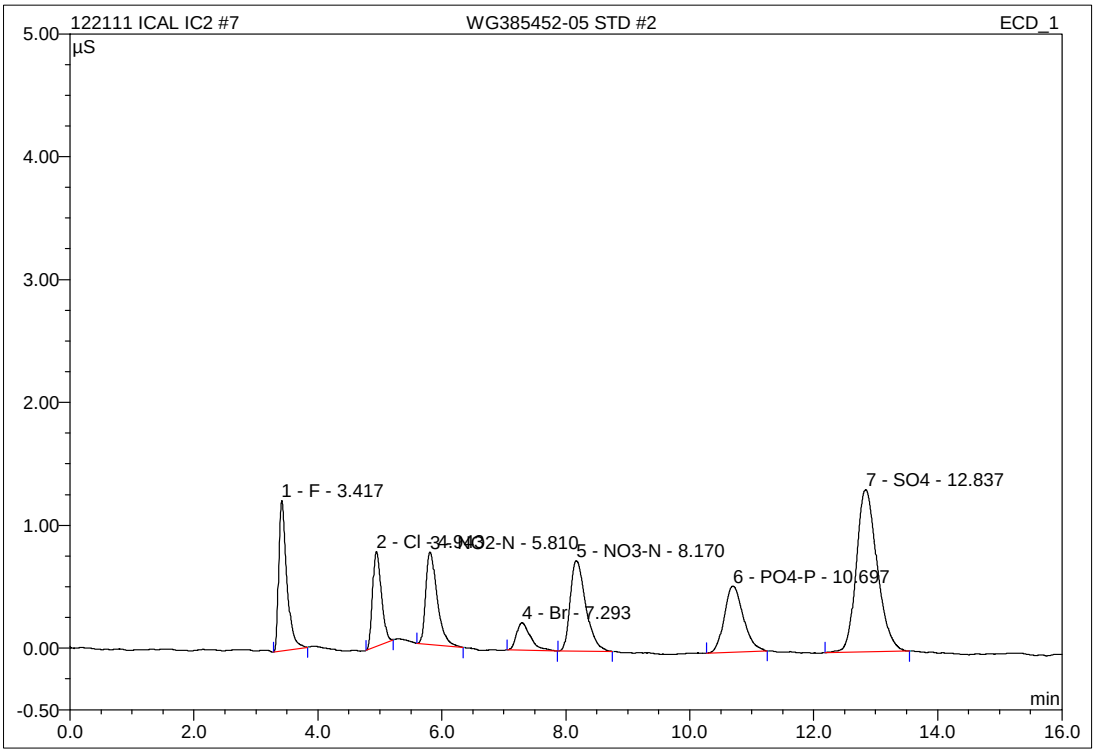
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

7 WG385452-05 STD #2

1,1 JBK STD48131

Sample Name:	**WG385452-05 STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/21/2011 13:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.42	F	1.226	0.185	12.71	0.934	BMB
2	4.94	Cl	0.773	0.127	8.74	0.874	BMB
3	5.81	NO2-N	0.750	0.163	11.17	0.580	BMB
4	7.29	Br	0.224	0.059	4.08	1.045	BMB
5	8.17	NO3-N	0.734	0.214	14.71	0.612	BMB
6	10.70	PO4-P	0.536	0.191	13.11	1.476	BMB
7	12.84	SO4	1.321	0.516	35.48	4.630	BMB
Total:			5.565	1.455	100.00	10.152	

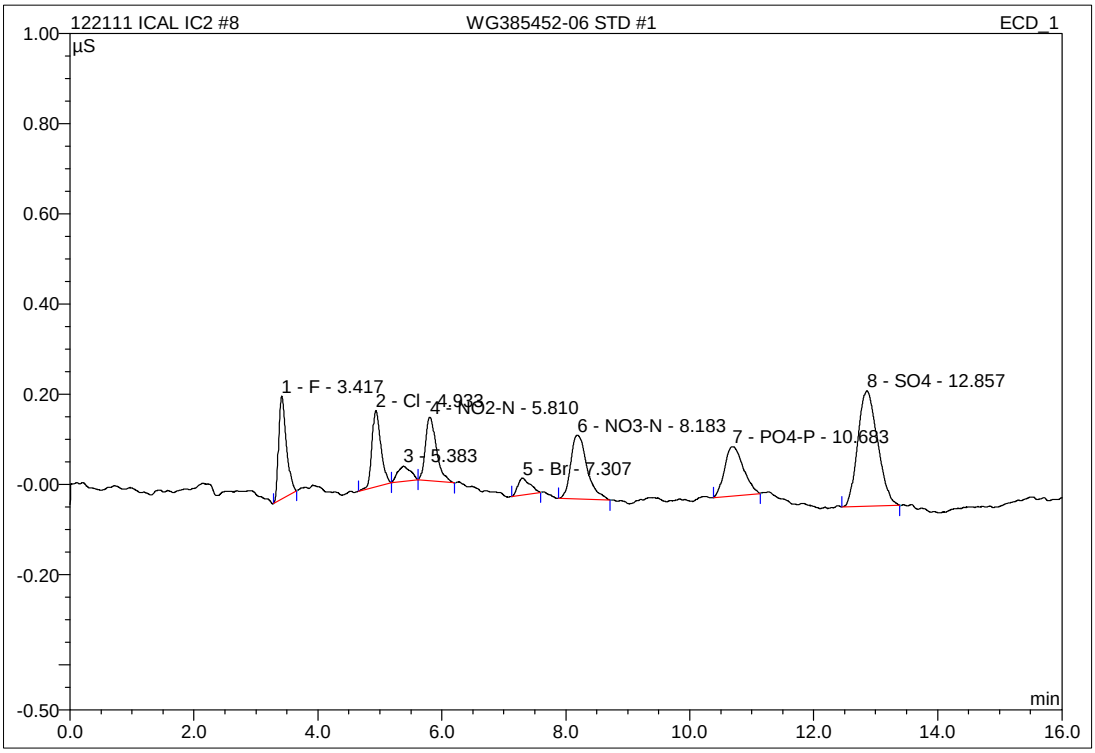
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

8 WG385452-06 STD #1

1,1 JBK STD48131

Sample Name:	**WG385452-06 STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/21/2011 13:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.42	F	0.229	0.033	11.66	0.203	BMB
2	4.93	Cl	0.169	0.028	9.90	0.205	BMB
3	5.38	n.a.	0.033	0.008	2.77	n.a.	BMB
4	5.81	NO2-N	0.141	0.029	10.30	0.123	BMB
5	7.31	Br	0.037	0.008	2.99	0.199	BMB
6	8.18	NO3-N	0.142	0.043	15.30	0.138	BMB
7	10.68	PO4-P	0.110	0.038	13.54	0.333	BMB
8	12.86	SO4	0.256	0.095	33.53	1.017	BMB
Total:			1.116	0.283	100.00	2.218	

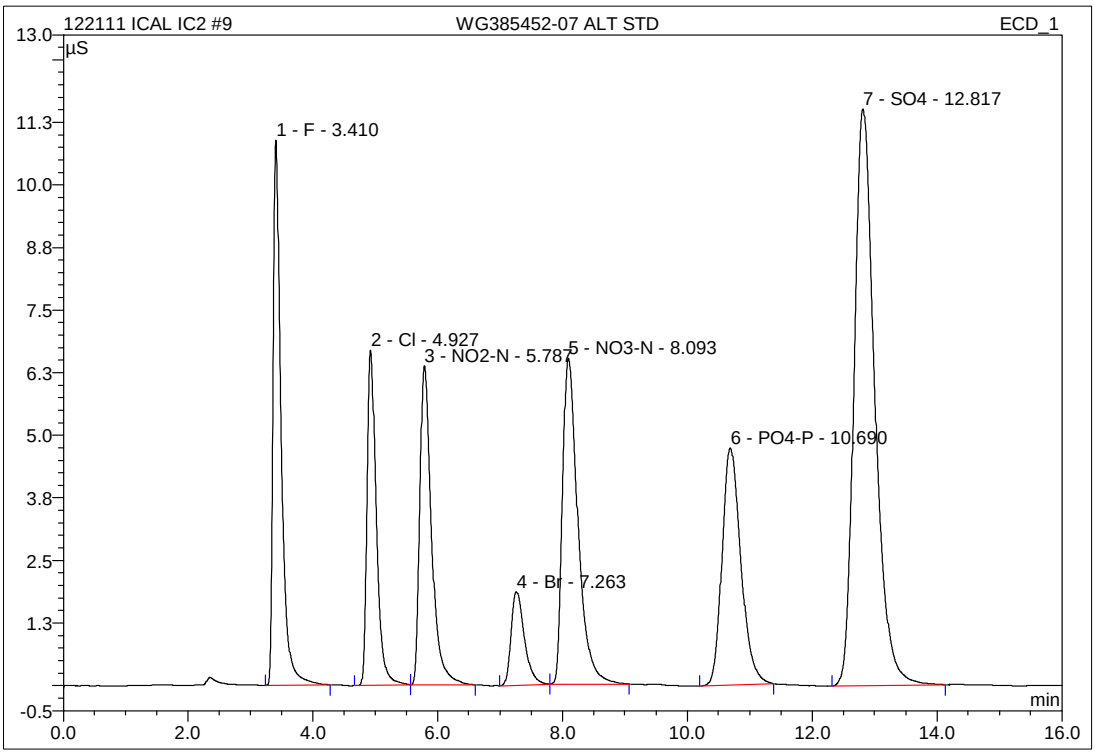
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

9 WG385452-07 ALT STD

1,1 JBK STD48132

Sample Name:	**WG385452-07 ALT STD**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/21/2011 14:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.41	F	10.889	1.620	12.87	7.835	BMB
2	4.93	Cl	6.698	1.162	9.23	7.854	BMB
3	5.79	NO2-N	6.377	1.390	11.05	4.790	BMB
4	7.26	Br	1.863	0.461	3.66	7.714	BMb
5	8.09	NO3-N	6.508	1.876	14.91	5.228	bMB
6	10.69	PO4-P	4.738	1.657	13.17	12.478	BMB
7	12.82	SO4	11.518	4.419	35.11	38.090	BMB
Total:			48.590	12.584	100.00	83.990	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

9 WG385452-07 ALT STD

1,1 JBK STD48132

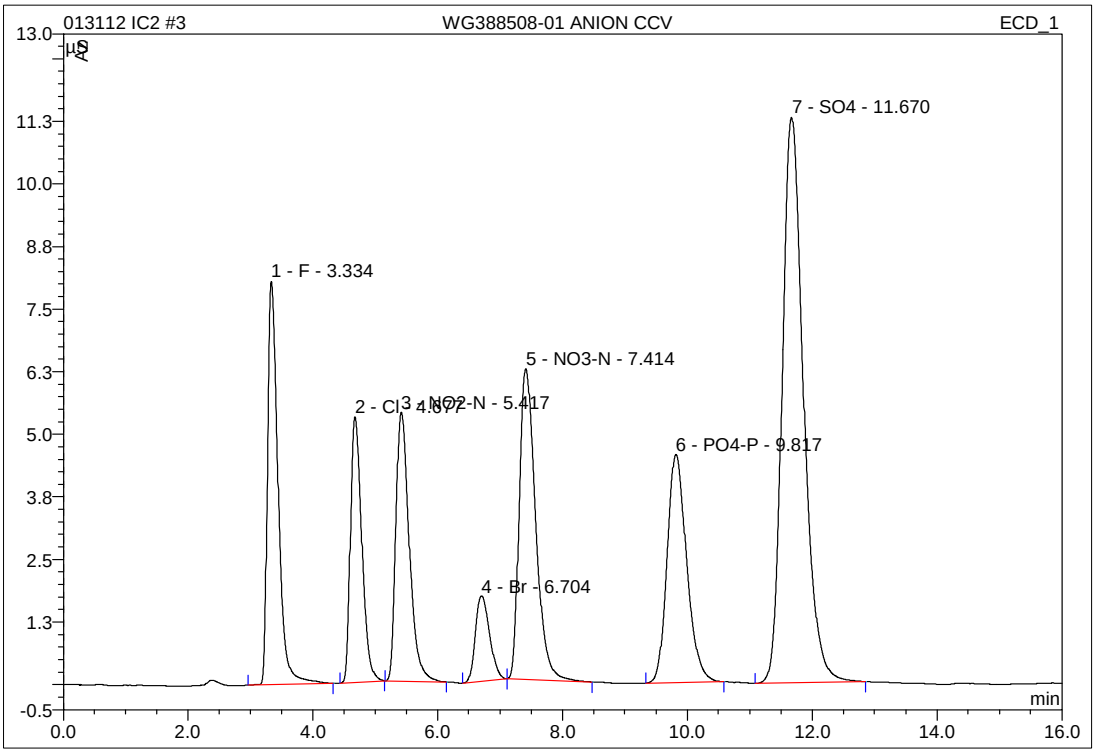
Sample Name:	**WG385452-07 ALT STD**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/21/2011 14:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**

WG385452-07 ALT	Actual mg/L	Recovered mg/L	%Difference	
F	8.00	7.8350	-2.06	PASS
Cl	8	7.8544	-1.82	PASS
NO2-N	4.8714	4.7901	-1.67	PASS
NO3-N	5.4216	5.2280	-3.57	PASS
Br	8	7.7140	-3.58	PASS
SO4	40	38.0903	-4.77	PASS
PO4-P	13.0456	12.4781	-4.35	PASS

3 WG388508-01 ANION CCV

1,1 JBK STD48131 _____ psi @_____

Sample Name:	**WG388508-01 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 15:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.33	F	8.059	1.592	12.73	7.701	BMB
2	4.68	Cl	5.304	1.122	8.97	7.584	BMB
3	5.42	NO2-N	5.375	1.335	10.68	4.601	BMB
4	6.70	Br	1.704	0.448	3.58	7.503	BMB
5	7.41	NO3-N	6.209	1.885	15.08	5.253	bMB
6	9.82	PO4-P	4.552	1.659	13.27	12.489	BMB
7	11.67	SO4	11.295	4.462	35.69	38.463	BMB
Total:			42.499	12.503	100.00	83.594	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

3 WG388508-01 ANION CCV

1,1 JBK STD48131 _____ psi @_____

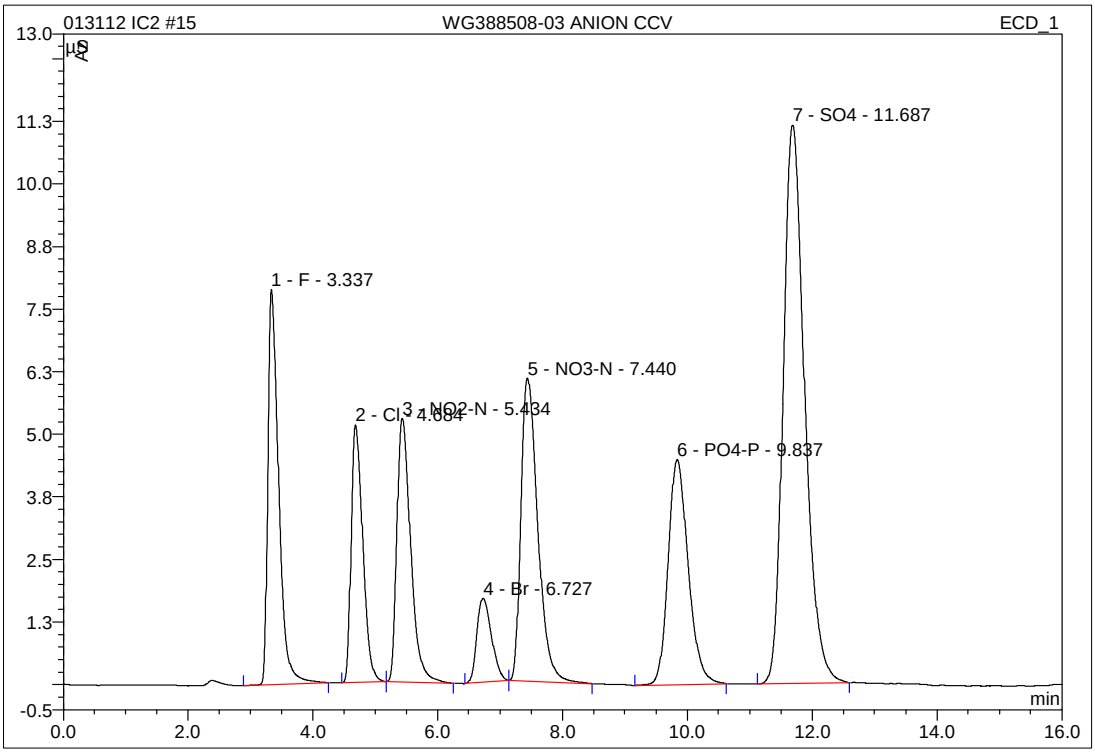
Sample Name:	**WG388508-01 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 15:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**

WG388508-01 ANI(	Actual mg/L	Recovered mg/L	%Difference	
F	8.00	7.7011	-3.74	PASS
Cl	8	7.5838	-5.20	PASS
NO2-N	4.8714	4.6010	-5.55	PASS
NO3-N	5.4216	5.2531	-3.11	PASS
Br	8	7.5033	-6.21	PASS
SO4	40	38.4630	-3.84	PASS
PO4-P	13.0456	12.4887	-4.27	PASS

15 WG388508-03 ANION CCV

1,1 JBK STD48131

Sample Name:	**WG388508-03 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 19:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.34	F	7.895	1.589	12.72	7.688	BMB
2	4.68	Cl	5.145	1.110	8.88	7.502	BMB
3	5.43	NO2-N	5.265	1.346	10.78	4.639	BMB
4	6.73	Br	1.677	0.456	3.65	7.631	BMB
5	7.44	NO3-N	6.051	1.891	15.13	5.269	BMB
6	9.84	PO4-P	4.496	1.676	13.41	12.617	BMB
7	11.69	SO4	11.148	4.426	35.43	38.151	BMB
Total:			41.678	12.493	100.00	83.497	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

15 WG388508-03 ANION CCV

1,1 JBK STD48131

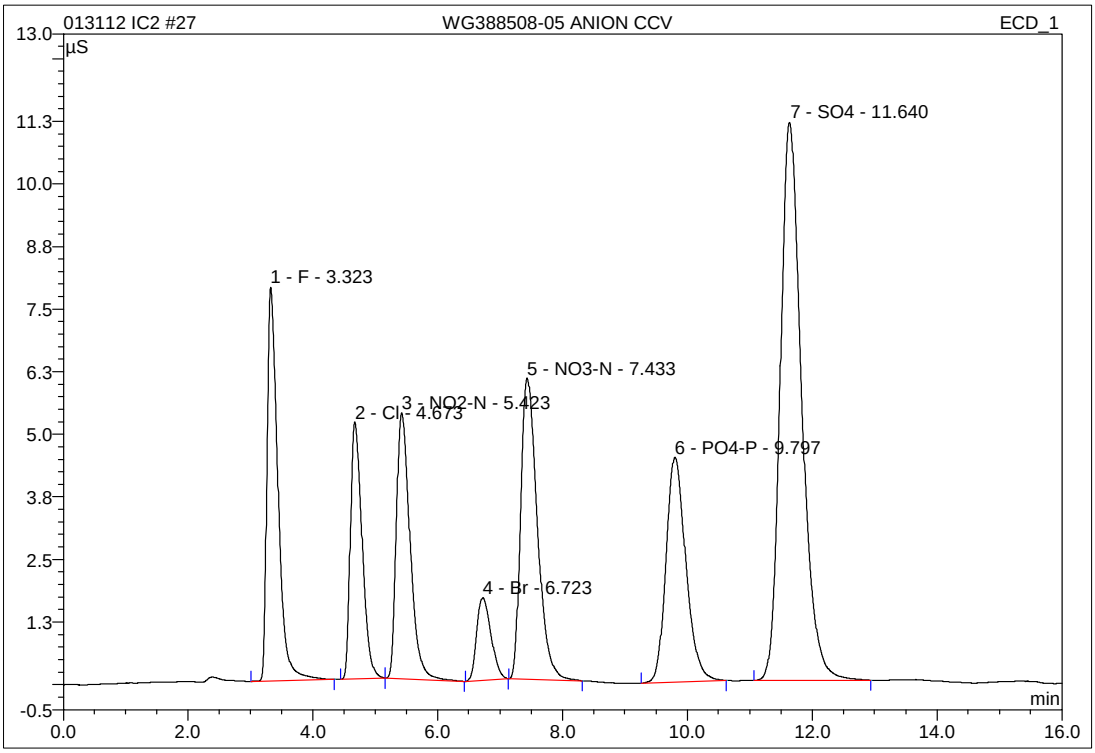
Sample Name:	**WG388508-03 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 19:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**

WG388508-03 ANI(	Actual mg/L	Recovered mg/L	%Difference	
F	8.00	7.6882	-3.90	PASS
Cl	8	7.5018	-6.23	PASS
NO2-N	4.8714	4.6394	-4.76	PASS
NO3-N	5.4216	5.2692	-2.81	PASS
Br	8	7.6314	-4.61	PASS
SO4	40	38.1508	-4.62	PASS
PO4-P	13.0456	12.6165	-3.29	PASS

27 WG388508-05 ANION CCV

1,1 JBK STD48131

Sample Name:	**WG388508-05 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 23:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.32	F	7.864	1.596	12.82	7.721	BMB
2	4.67	Cl	5.131	1.116	8.96	7.541	BMB
3	5.42	NO2-N	5.308	1.355	10.88	4.669	BMB
4	6.72	Br	1.647	0.440	3.53	7.365	BMB
5	7.43	NO3-N	6.018	1.856	14.91	5.173	BMB
6	9.80	PO4-P	4.488	1.658	13.32	12.485	BMB
7	11.64	SO4	11.151	4.427	35.57	38.162	BMB
Total:			41.607	12.447	100.00	83.116	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

27 WG388508-05 ANION CCV

1,1 JBK STD48131

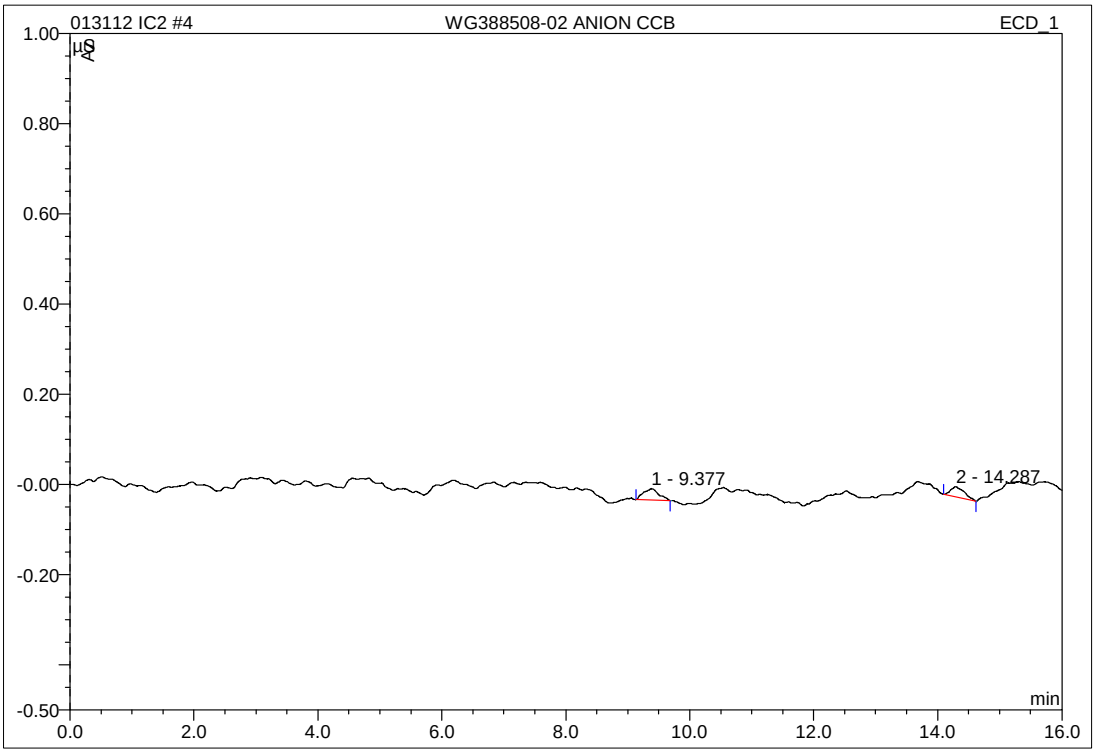
Sample Name:	**WG388508-05 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 23:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**

WG388508-05 ANI(	Actual mg/L	Recovered mg/L	%Difference	
F	8.00	7.7211	-3.49	PASS
Cl	8	7.5408	-5.74	PASS
NO2-N	4.8714	4.6690	-4.15	PASS
NO3-N	5.4216	5.1725	-4.59	PASS
Br	8	7.3655	-7.93	PASS
SO4	40	38.1616	-4.60	PASS
PO4-P	13.0456	12.4851	-4.30	PASS

4 WG388508-02 ANION CCB

1,1 JBK

Sample Name:	**WG388508-02 ANION CCB**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 16:18**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**

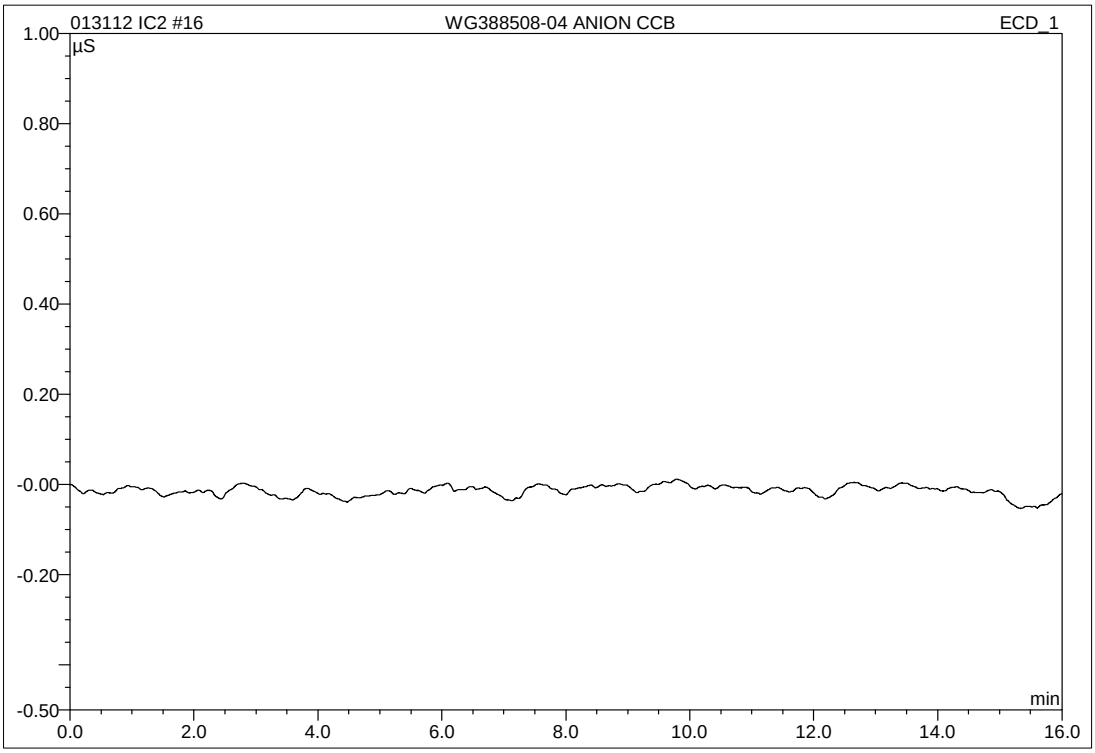


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	9.38	n.a.	0.025	0.007	54.96	n.a.	BMB
2	14.29	n.a.	0.023	0.006	45.04	n.a.	BMB
Total:			0.049	0.014	100.00	0.000	

16 WG388508-04 ANION CCB

1,1 JBK

Sample Name:	**WG388508-04 ANION CCB**	*Injection Volume:*	**25.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 19:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**

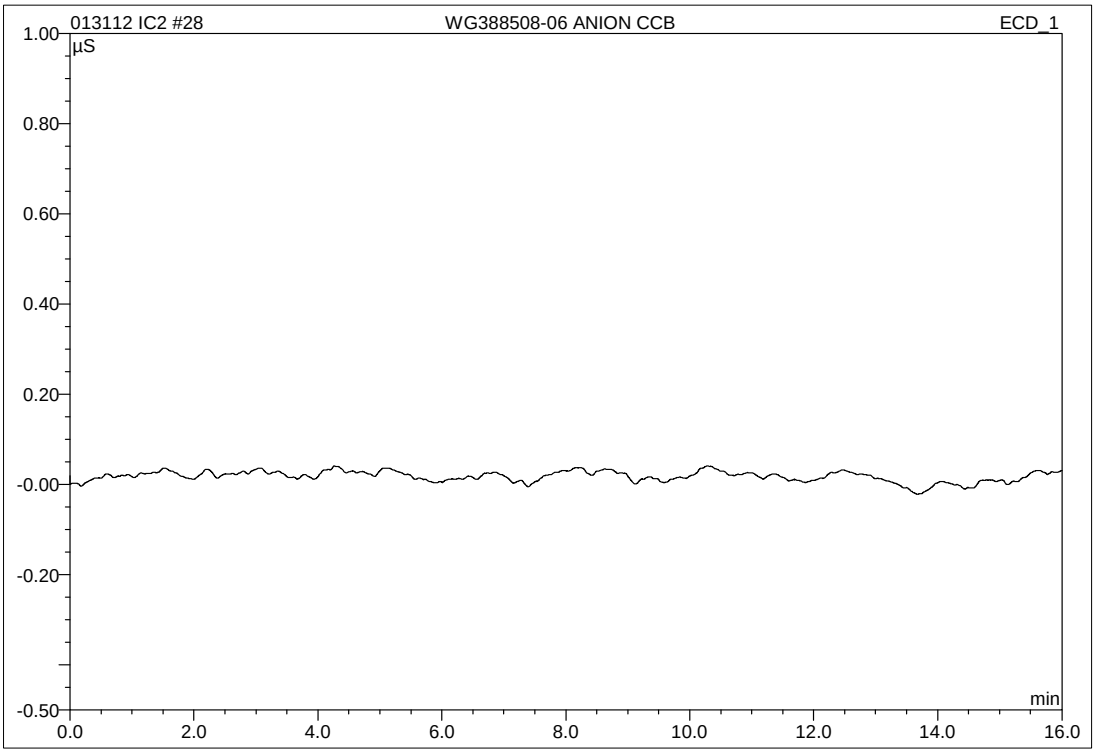


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

28 WG388508-06 ANION CCB

1,1 JBK

Sample Name:	**WG388508-06 ANION CCB**	*Injection Volume:*	**25.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 23:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

RETENTION TIME WINDOWS

Lab Name: Microbac Laboratories, Inc.

Instrument ID: IC1

IC Column: AG14A-SC/AS14A-SC

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	9/28/2011	9/28/2011	9/29/2011
File #	WG377440-01	WG377440-07	WG377498-01
Time	13:32	23:58	13:53

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
F	3.457	3.467	3.447	0.030
Cl	4.910	4.910	4.880	0.052
NO2-N	5.734	5.730	5.690	0.073
Br	7.110	7.097	7.047	0.100
NO3-N	7.870	7.857	7.800	0.112
PO4-P	10.834	10.843	10.754	0.147
SO4	13.124	13.137	13.007	0.215

Instrument ID: IC2

IC Column: AG14A-SC/AS14A-SC

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	8/3/2010	8/3/2010	8/4/2010
File #	WG338645-02	WG338692-07	WG338870-02
Time	12:15	22:42	12:00

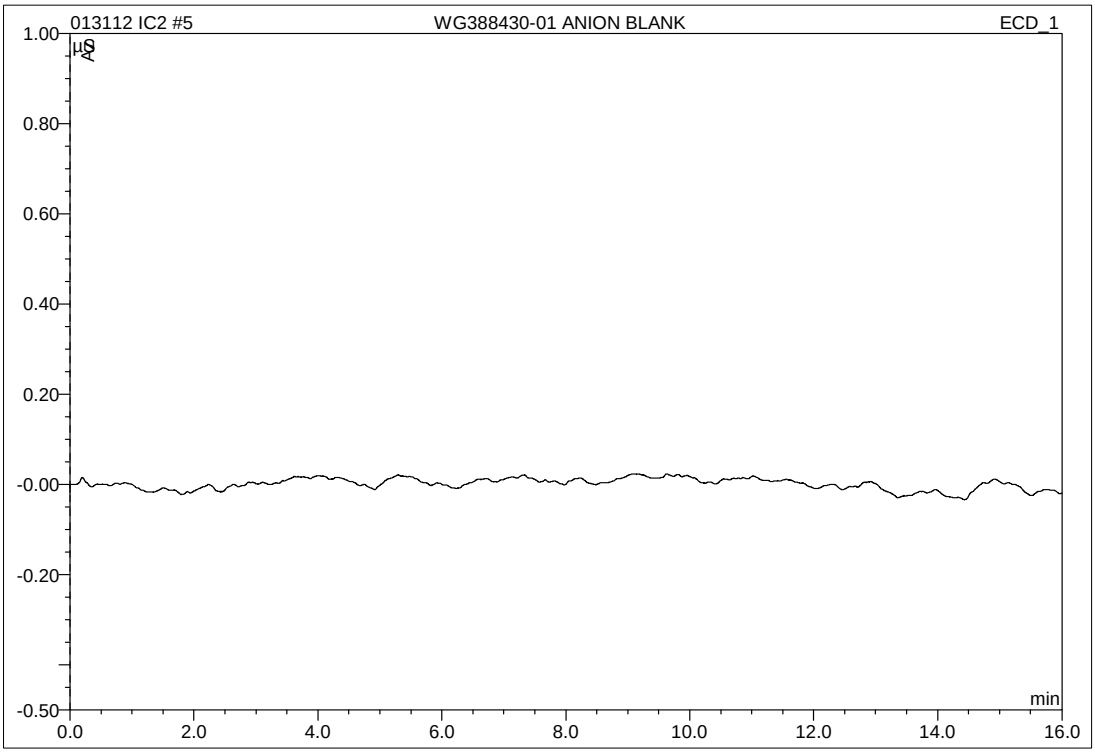
COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
F	3.387	3.377	3.367	0.030
Cl	4.867	4.864	4.837	0.050
NO2-N	5.724	5.717	5.684	0.064
Br	7.174	7.160	7.117	0.089
NO3-N	8.020	8.007	7.954	0.105
PO4-P	10.640	10.607	10.580	0.090
SO4	12.580	12.574	12.507	0.122

2.2.1.5 Raw QC Data

5 WG388430-01 ANION BLANK

1,1 JBK

Sample Name:	**WG388430-01 ANION BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 16:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

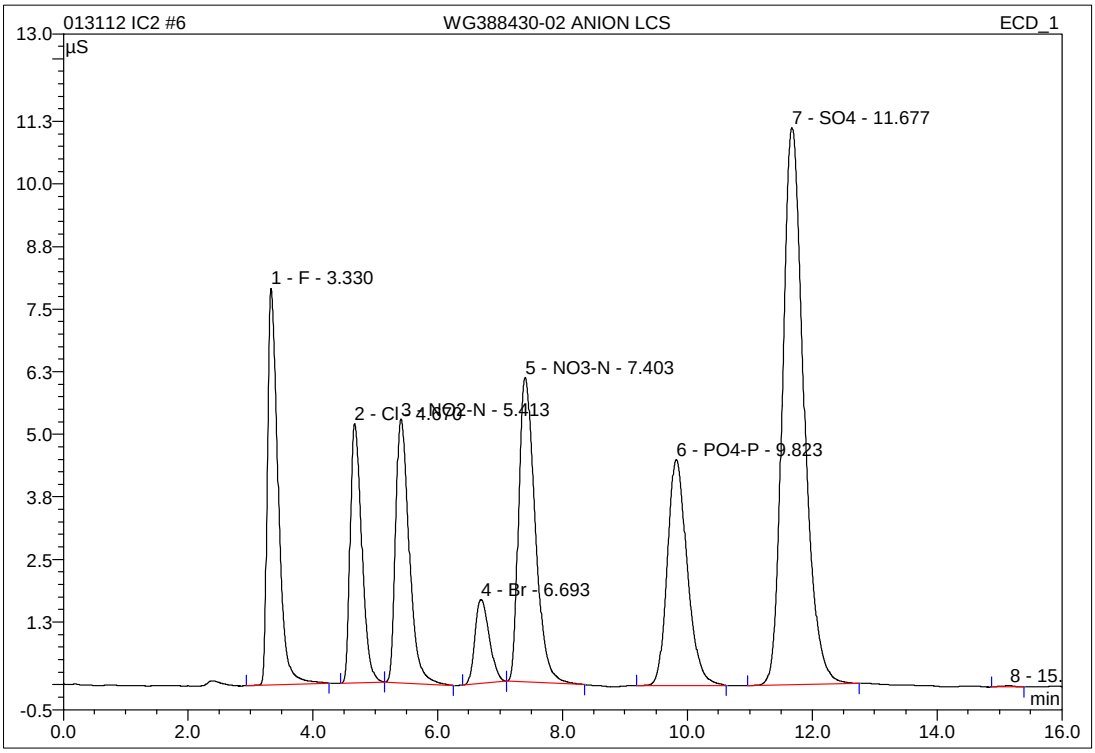
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

6 WG388430-02 ANION LCS

1,1 JBK STD48131

Sample Name:	**WG388430-02 ANION LCS**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 16:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.33	F	7.923	1.579	12.72	7.638	BMB
2	4.67	Cl	5.184	1.114	8.98	7.530	BMb
3	5.41	NO2-N	5.272	1.335	10.76	4.601	bMB
4	6.69	Br	1.673	0.446	3.59	7.469	BMB
5	7.40	NO3-N	6.082	1.860	14.99	5.185	bMB
6	9.82	PO4-P	4.514	1.671	13.47	12.581	BMB
7	11.68	SO4	11.132	4.398	35.44	37.906	BMB
8	15.16	n.a.	0.025	0.007	0.05	n.a.	BMB
Total:			41.804	12.409	100.00	82.912	

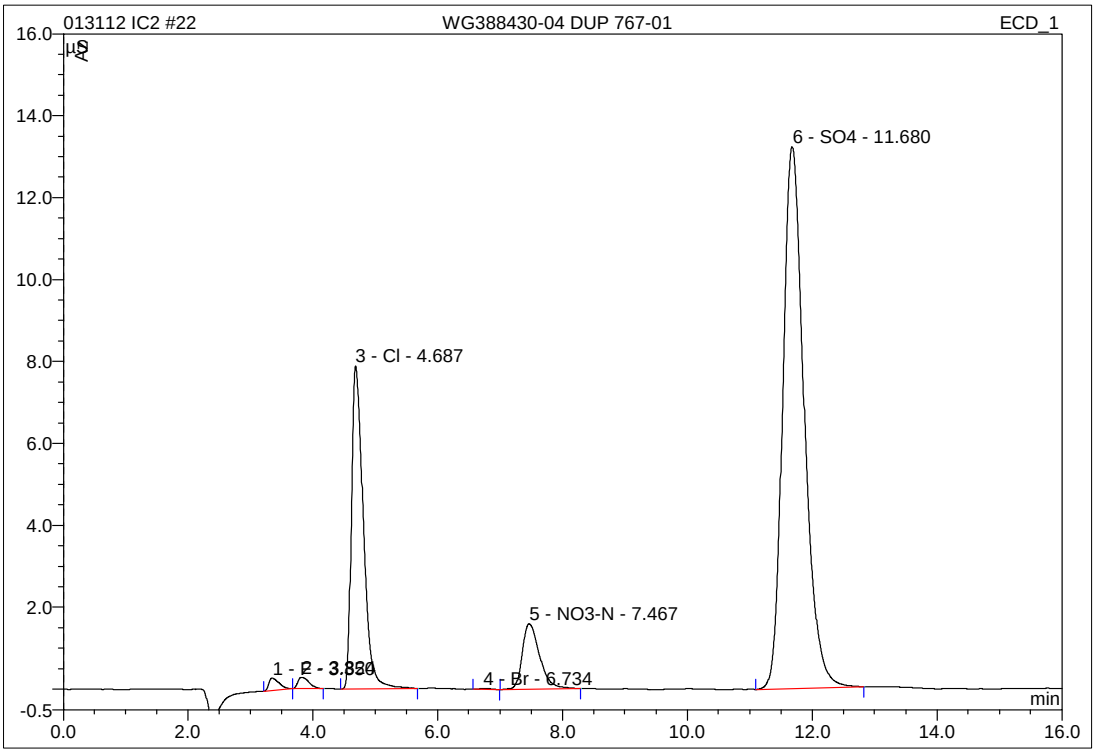
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

22 WG388430-04 DUP 767-01

1,1 JBK

Sample Name:	**WG388430-04 DUP 767-01**	*Injection Volume:*	**25.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**1/31/2012 21:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.35	F	0.309	0.060	0.79	0.334	BMB
2	3.82	n.a.	0.279	0.056	0.74	n.a.	bMB
3	4.69	Cl	7.891	1.742	22.86	11.768	BMB
4	6.73	Br	0.023	0.005	0.07	0.145	BMB
5	7.47	NO3-N	1.592	0.513	6.74	1.444	BMB
6	11.68	SO4	13.225	5.245	68.81	45.173	BMB
Total:			23.319	7.622	100.00	58.864	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

2.2.2 PH Data

2.2.2.1 Summary Data

Login Number: L12010767
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis SW846 9040C,9045D/EPA 150.1/SM4500-H B (pH)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 42084
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	ORION-4STAR
Client ID:	MPL-21-0112-1	**Prep Method:**	9040C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9040C	**Cal Date:**	
Workgroup #:	WG388300	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:25
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	OS12013112270201
Sample Tag:		**Units:**	UNITS		

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	7.80		0.000	0.000

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	ORION-4STAR
Client ID:	MPL-21-0112-MS	**Prep Method:**	9040C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9040C	**Cal Date:**	
Workgroup #:	WG388300	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:25
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	OS12013112270501
Sample Tag:		**Units:**	UNITS		

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	7.76		0.000	0.000

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	ORION-4STAR
Client ID:	MPL-21-0112-MSD	**Prep Method:**	9040C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9040C	**Cal Date:**	
Workgroup #:	WG388300	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:25
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	OS12013112270901
Sample Tag:		**Units:**	UNITS		

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	7.77		0.000	0.000

2.2.2.2 QC Summary Data

Example pH Calculations
(Direct Readout Parameter)

Readout from instrument = result in S.U.

where:

Readout = direct readout from the instrument

Microbac Laboratories Inc.

Data Checklist

Date: 29-JAN-2012
Analyst: DIH
Analyst: NA
Method: PH
Instrument: ORION 4*
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388300

Calibration/Linearity	1/29/12
Second Source Check	
ICV/CCV (std)	
ICB/CCB	
Blank	
LCS/LCS Dup	X
MS/MSD	
Duplicate	X
Upload Results	X
Client Forms	
QC Violation Sheet	
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
01-FEB-2012

Secondary Reviewer:
01-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-01-2012 14:10:05

2.2.2.3 Raw Data

wg388300

pH

Sample	Calibration Buffers	Time of Calibration	A Water Misc. Liquid	B 50% Slurry Of Solid	C 50% Water Org. Liq. Mix	Time Analyzed
LCS #9 std49325	7, 10	0915	8.97			0925
mpl 21 01-7601			7.80			
MS 767-02			7.76			
MSD 767-03			7.77			
~~pH 9~~ DUP			7.86			
pH 9			9.02			
DUP						
LCS 9						

B,C) SW846 9045D

A) SM 4500-H(+)-B

A) EPA 150.1

A) SW846 9040C

SOP K1501 Rev 13

Circle Instrument

Orion 4-Star

Orion 710A #1

Orion 710A #2

Bante 922

Analyst: Deanna Spaer Date: 1/29/12/0925

DCN#89751

2.2.3 Alkalinity Data

2.2.3.1 Summary Data

Login Number: L12010767
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 310.2 (Alkalinity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: The blank result was greater than the absolute value of the LOD.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: Recoveries out of range were observed for the following analytes: Alkalinity, Carbonate (as CaCO3). Please see the applicable QC report for a detailed presentation of the failures.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 41629
Approved By: Deanna Hesson

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:08
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.035
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)		101		20.0	10.0

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:08
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.035
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Carbonate (as CaCO3)			U	20.0	10.0

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:08
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.035
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Bicarbonate (as CaCO3)		101		20.0	10.0

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MS	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:09
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.036
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Bicarbonate (as CaCO3)		187		20.0	10.0

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MS	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:09
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.036
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Carbonate (as CaCO3)			U	20.0	10.0

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MS	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:09
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.036
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)		187		20.0	10.0

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MSD	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.037
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)		187		20.0	10.0

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MSD	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.037
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Carbonate (as CaCO3)			U	20.0	10.0

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MSD	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	01/31/2012 08:52
Workgroup #:	WG388329	**Analyst:**	DIH	**Run Date:**	01/31/2012 09:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131001.037
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Bicarbonate (as CaCO3)		187		20.0	10.0

2.2.3.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
y = mx + b

Step 2: Calculate the instrument concentration, x

Where:

x = (y - b)/m

Step 3: Solve for analyte concentration in sample, Cx

Cx = (x) (D)

Example Calculation (LCS):

Value of m from plot:	7.809	
Value of b from plot:	0.0004135	
Absorbance of unknown from quantitation report (y):	0.31	
Calculated concentration (x):	0.03964483	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	0.0396	mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

y = Ax^2 + Bx + C

Step 3: Solve for analyte concentration in sample, Cy

Cy = (y) (D)

Example Calculation (LCS):

Value of A from plot:	101.2796	
Value of B from plot:	318.9056	
Value of C from plot:	-2.2712	
Absorbance of unknown from quantitation report (x):	0.1583	
Calculated concentration (y):	50.7495108	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	50.75	mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 31-JAN-2012
Analyst: DIH
Analyst: NA
Method: ALK
Instrument: SC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388329

Calibration/Linearity	1/31/2012
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
02-FEB-2012

Secondary Reviewer:
02-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-02-2012 10:36:59

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 310.2 AAB#: WG388329

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12							14		01/31/12	3.8	14	
MPL-21-0112-MS	02	01/27/12							14		01/31/12	3.8	14	
MPL-21-0112-MSD	03	01/27/12							14		01/31/12	3.8	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2296341
Report generated 02/02/2012 08:55

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: SC120131001.010
Prep Date: 01/31/12 08:54
Analyzed Date: 01/31/12 08:54
Analyst: DIH

Work Group: WG388329
Blank Sample ID: WG388329-01
Instrument ID: SMARTCHEM
Method: 310.2

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388329-02	SC120131001.011	01/31/12 08:54	01
LCS2	WG388329-03	SC120131001.012	01/31/12 08:55	01
DUP	WG388329-05	SC120131001.015	01/31/12 08:56	01
MPL-21-0112-1	L12010767-01	SC120131001.035	01/31/12 09:08	01
MPL-21-0112-1	L12010767-01	SC120131001.035	01/31/12 09:08	01
MPL-21-0112-1	L12010767-01	SC120131001.035	01/31/12 09:08	01
MPL-21-0112-MS	L12010767-02	SC120131001.036	01/31/12 09:09	01
MPL-21-0112-MS	L12010767-02	SC120131001.036	01/31/12 09:09	01
MPL-21-0112-MS	L12010767-02	SC120131001.036	01/31/12 09:09	01
MPL-21-0112-MSD	L12010767-03	SC120131001.037	01/31/12 09:10	01
MPL-21-0112-MSD	L12010767-03	SC120131001.037	01/31/12 09:10	01
MPL-21-0112-MSD	L12010767-03	SC120131001.037	01/31/12 09:10	01

Report Name: BLANK_SUMMARY
PDF File ID: 2296342
Report generated 02/02/2012 08:55

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 01/31/12 08:54 Sample ID: WG388329-01
Instrument ID: SMARTCHEM Run Date: 01/31/12 08:54 Prep Method: 310.2
File ID: SC120131001.010 Analyst: DIH Method: 310.2
Workgroup (AAB#): WG388329 Matrix: Water Units: mg/L
Contract #: Cal ID: SMARTC - 31-JAN-12

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Alkalinity, Total (as CaCO3)	10.0	20.0	-12.6	1	*

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name: BLANK
PDF ID: 2296343
02-FEB-2012 08:58

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Analyst: DIH Prep Method: 310.2
Instrument ID: SMARTCHEM Matrix: Water Method: 310.2
Workgroup (AAB#): WG388329 Units: mg/L
QC Key: DOD4 Lot #: STD49459

Sample ID: WG388329-02 LCS File ID: SC120131001.011 Run Date: 01/31/2012 08:54
Sample ID: WG388329-03 LCS2 File ID: SC120131001.012 Run Date: 01/31/2012 08:55

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Alkalinity, Total (as CaCO3)	200	193	96.3	200	190	95.1	1.25	85 - 115	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2296344
Report generated: 02/02/2012 08:55

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: SMARTCHEM- 31-JAN-12 Worknum: WG388329

Instrument ID: SMARTCHEM Contract #: Prep Method: 310.2

Parent ID: L12010767-01 File ID: SC120131001.035 Dil: 1 Method: 310.2

Sample ID: L12010767-02 MS File ID: SC120131001.036 Dil: 1 Matrix: Water

Sample ID: L12010767-03 MSD File ID: SC120131001.037 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Alkalinity, Total (as CaCO3)	101	100	187	86.5	100	187	86.8	0.191	85 - 115	20	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2296345
Report generated 02/02/2012 08:55

2.2.3.3 Raw Data

SMARTCHEM RUN LOG

Daily Check

- [x] Lamp On
- [x] Probe Rinse Full
- [x] DI Water > ½ Full
- [x] Wash Solution > ½ Full
- [ ] NO3 Reagent bottle connected / purged
- [ ] NO3 pH adj to pH 5-9
- [x] WBL Run
- [x] Reagents Full
- [x] Dilution H_2O Full
- [x] Waste Container Check

Syringe filter lot # _____

1) **Workgroup Plan #** 20120131001
2) **Workgroup Plan #** _____
3) **Workgroup Plan #** _____

Analyte		1	2	3
		AIK		
		Dilution		
SC Prepared Curve				
Position				
1-1	ICV 250			
1-2	BIK			
1-3	LCS 200			
1-4	LCSDUP			
1-5	01-710-01			B,C
1-6	01-651-01			+BC
1-7	DUP 01			↓
1-8	MS 02			↓
1-9	MSD 03			↓
1-10	01-652-01			+BC
1-11	02			↓
1-12	01-726-01			
1-13	02			
1-14	01-743-02	~~1/4~~ 1/10		color
1-15	03	1/4		↓
1-16	05	1/10		↓
1-17	06	1/4		↓
1-18	08	1/10		↓
1-19	09	1/4		↓
1-20	01-686-01			+BC
1-21	02			↓
1-22	03			↓
2-1	01-767-01			+BC
2-2	MS02			↓
2-3	MSD03			↓

Analyte		1	2	3
Position				
2-4				
2-5				
2-6				
2-7				
2-8				
2-9				
2-10				
2-11				
2-12				
2-13				
2-14				
2-15				
2-16				
2-17				
2-18				
2-19				
2-20				
2-21				
2-22				
2-23				
2-24				
2-25				
2-26				
3-1				
3-2				

NOTES:
* Run NO2 std on NO3 runs
* LCS/LCS Dup all parameters
*MS(10% sample): NO3, TKN, NH3

DCN#89762

SMARTCHEM RUN LOG

Position	Analyte	1	2	3
3-3				
3-4				
3-5				
3-6				
3-7				
3-8				
3-9				
3-10				
3-11				
3-12				
3-13				
3-14				
3-15				

Position	Analyte	1	2	3
3-16				
3-17				
3-18				
3-19				
3-20				
3-21				
3-22				
3-23				
3-24				
3-25				
3-26				
3-27				
3-28				

- [ ] Chloride — EPA 325.2/SM 4500-Cl⁻ E
- [ ] Sulfate — EPA 375.4/SM 426C(15th)
- [x] Alkalinity — EPA 310.2
- [ ] Nitrate-Nitrite — EPA 353.2/SM 4500-NO3 F
- [ ] Ammonia — EPA 350.1/SM 4500-NH3 B
- [ ] TKN — EPA 351.2
- [ ] Phos — EPA 365.4

Analyte	ALK		Reagents
SOP & Revision	K3102 R14		Rot16994
Curve Stock (SC made)	std47063		
Curve ID (user made)			
ICV	std49458		
CCV	std49513		
LCS	std49459		
MS	std47064 Dilution 0.25(2500)=100		

Comments: 01-710, 01-651, 01-652, 01-686, 01-767 all pH < 8.3

Analyst: Deanna Jason Date: 1/31/12

DCN#89762

MICROBAC (OVD)

SMARTCHEM REPORT (VER3.0.53)

NH3, TKN, NO3NO2 (MG/L N)

ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK - ALKALINITY EPA 310.2

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.0	0.7757	0.00		8:46:53 AM
DIL-1	RBL	0.0	0.7824	0.00		8:47:11 AM
DIL-1	RBL	0.0	0.7756	0.00		8:48:05 AM
DIL-1	Std-1	0.0	0.0040	0.00	INV	8:48:23 AM
SR5-1	Std-2	10.0	-0.0138	0.00		8:49:17 AM
SR5-2	Std-3	20.0	-0.0376	0.00		8:49:35 AM
SR5-3	Std-4	50.0	-0.0806	0.00		8:50:29 AM
SR5-4	Std-5	100.0	-0.1563	0.00		8:50:47 AM
SR5-5	Std-6	200.0	-0.3548	0.00		8:51:41 AM
SR5-6	Std-7	250.0	-0.4720	0.00		8:51:59 AM
SR5-7	Std-8	300.0	-0.5583	0.00		8:52:53 AM
1	ICV 250	238.8	-0.4339	0.00		8:53:11 AM
2	WG388329-01 BLK	-12.6	0.0227	0.00	INV,><,LL	8:54:05 AM
3	WG388329-02 LCS	192.6	-0.3400	0.00		8:54:23 AM
4	WG388329-03 LCSDUP	190.2	-0.3353	0.00		8:55:18 AM
5	L12010710-01	215.5	-0.3858	0.00		8:55:36 AM
6	L12010651-01	84.7	-0.1400	0.00		8:56:30 AM
7	WG388329-05 DUP	80.6	-0.1329	0.00		8:56:48 AM
8	L12010651-02 MS	156.8	-0.2708	0.00		8:57:42 AM
9	L12010651-03 MSD	155.5	-0.2685	0.00		8:58:00 AM
10	L12010652-01	70.7	-0.1157	0.00		8:58:54 AM
ST-2	CCV (150 mg/L)	156.1	-0.2696	104.09		8:59:12 AM
ST-3	CCB (0 mg/L)	-8.3	0.0157	0.00	INV,><,LL	9:00:06 AM
11	L12010652-02	74.9	-0.1230	0.00		9:00:24 AM
12	L12010726-01	344.7 X	-0.6762	0.00	><,LH	9:01:18 AM
13	L12010726-02 dm 2/1/12	8.8	-0.0119	0.00		9:01:36 AM
14	L12010743-02 (10)	135.7	-0.2315	0.00		9:02:30 AM
15	L12010743-03 (4)	241.9	-0.4403	0.00		9:02:48 AM
16	L12010743-05 (10)	118.5	-0.2001	0.00		9:03:42 AM
17	L12010743-06 (4)	223.2	-0.4015	0.00		9:04:00 AM
18	L12010743-08 (10)	93.4	-0.1552	0.00		9:04:54 AM
19	L12010743-09 (4)	238.2	-0.4327	0.00		9:05:12 AM

Report Date :01/31/2012 **Run Date :1/31/2012** **Operator : WESTCO** **Plan # :20120131001**

Plan Description : ALK-A-DIH/1/31/2012

MICROBAC (OVD)

SMARTCHEM REPORT (VER3.0.53)

NH3, TKN, NO3NO2 (MG/L N)

ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK - ALKALINITY EPA 310.2

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
20	L12010686-01	114.8	-0.1933	0.00		9:06:06 AM
ST-2	CCV (150 mg/L)	157.4	-0.2720	104.94		9:06:24 AM
ST-3	CCB (0 mg/L)	11.3	-0.0160	0.00		9:07:18 AM
21	L12010686-02	141.4	-0.2420	0.00		9:07:36 AM
22	L12010686-03	88.5	-0.1466	0.00		9:08:30 AM
23	L12010767-01	100.6	-0.1679	0.00		9:08:48 AM
24	L12010767-02 MS	187.0	-0.3290	0.00		9:09:42 AM
25	L12010767-03 MSD	187.4	-0.3297	0.00		9:10:00 AM
26	ID 26	15.0	-0.0220	0.00		9:10:54 AM
27	ID 27	12.9	-0.0186	0.00		9:11:12 AM
ST-2	CCV (150 mg/L)	166.8	-0.2899	111.22		9:12:06 AM
ST-3	CCB (0 mg/L)	14.6	-0.0214	0.00		9:12:24 AM
12-[1/2]	L12010726-01	618.5 X	-0.5900	0.00	><,LH	9:20:04 AM
ST-2	CCV (150 mg/L)	183.4 X	-0.3218	122.24		9:20:04 AM
ST-3	CCB (0 mg/L)	30.7 X	-0.0479	0.00		9:20:58 AM
12-[1/4]	L12010726-01	709.3 X	-0.3101	0.00	LH	9:28:28 AM
ST-2	CCV (150 mg/L)	184.3 X	-0.3237	122.88		9:28:28 AM
ST-3	CCB (0 mg/L)	34.9 X	-0.0550	0.00		9:29:22 AM

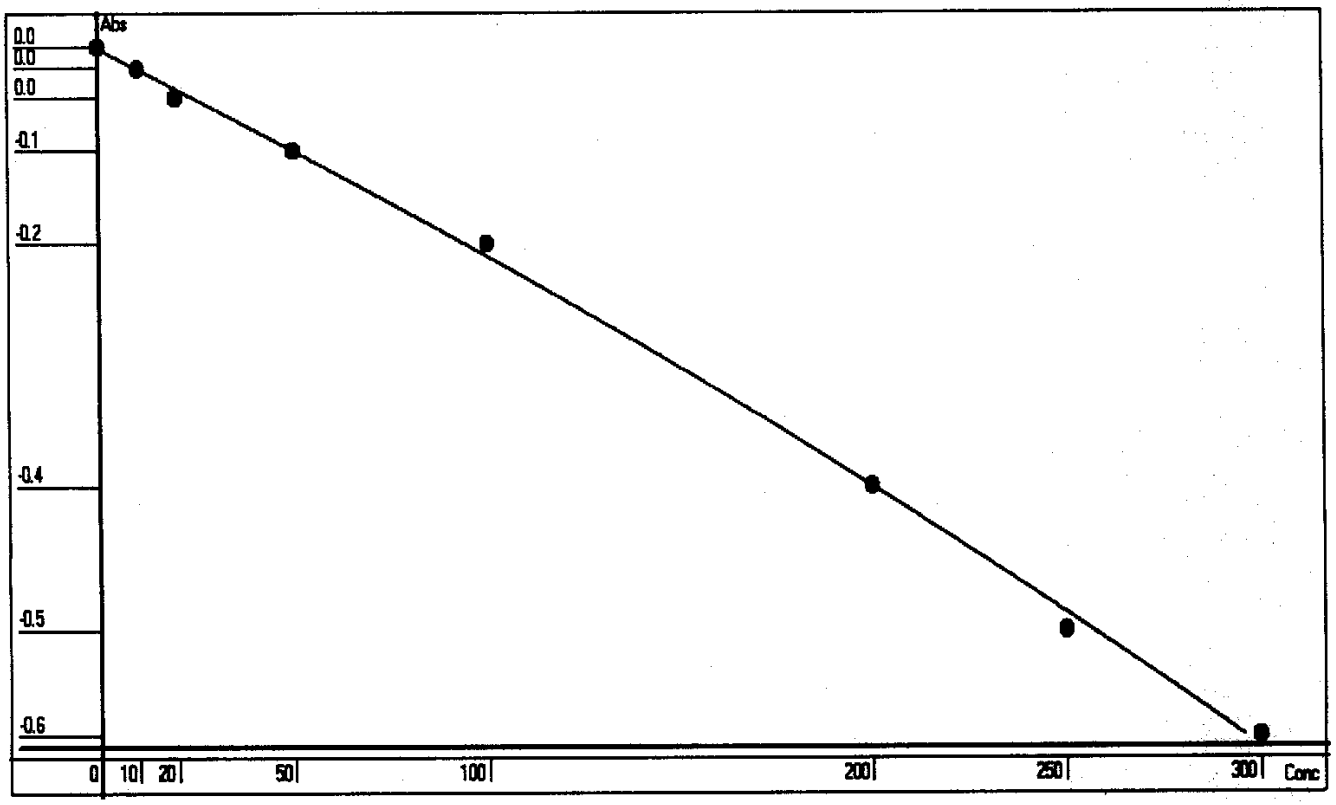
Report Date :01/31/2012 **Run Date :1/31/2012** **Operator : WESTCO** **Plan # :20120131001**

Plan Description : ALK-A-DIH/1/31/2012

Calibrant Report - WALK -

Calib Lot #:010104 Exp Date:6/21/2020 User:MICROBAC

Plan # : 20120131001 Description : [ALK-A-DIH/1/31/2012]



Point	OD	Conc	Recalc Conc	% Error
1	0.0040	0	-0.9987	-99.87
2	-0.0138	10	9.9657	-0.34
3	-0.0376	20	24.4649	22.32
4	-0.0806	50	50.1943	0.39
5	-0.1563	100	94.0299	-5.97
6	-0.3548	200	200.1303	0.07
7	-0.4720	250	256.7623	2.70
8	-0.5583	300	295.6093	-1.46

Conc= -162.5029*Abso^2 -617.566*Abso +1.4742 R^2=0.9988

RBL
0.7757
0

Report Date 1/31/2012 Run Date 1/31/2012

2.2.4 Cyanide Data

2.2.4.1 Summary Data

Login Number: L12010767
Department: Conventionals
Analyst: Dorothy Payne

METHOD

Analysis SW846 9014/9010C/SM4500-CN-C,E-20th (Cyanide)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Cyanide-Ammenable is the difference between the total cyanide and the treated cyanide. The LCS is analyzed to show that all of the cyanide is ammenable (the treated portion is ND). The LCS forms cannot calculate cyanide ammenable. The LCS is acceptable.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 41782
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-1	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	01/30/2012 15:15
Workgroup #:	WG388303	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301830-10
Sample Tag:	D02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-1	**Prep Method:**	SM4500-CN-C,G	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G	**Cal Date:**	02/03/2012 13:25
Workgroup #:	WG388635	**Analyst:**	JBK	**Run Date:**	02/03/2012 14:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1202031410-06
Sample Tag:	CN-A	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-1	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	01/30/2012 15:15
Workgroup #:	WG388302	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:00
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301800-17
Sample Tag:	D01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MS	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	01/30/2012 15:00
Workgroup #:	WG388303	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301830-11
Sample Tag:	D02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5	0.194		0.0100	0.00500

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MS	**Prep Method:**	SM4500-CN-C,G	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G	**Cal Date:**	02/03/2012 13:25
Workgroup #:	WG388635	**Analyst:**	JBK	**Run Date:**	02/03/2012 14:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1202031410-07
Sample Tag:	CN-A	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MS	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	01/30/2012 15:00
Workgroup #:	WG388302	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:00
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301800-18
Sample Tag:	D01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.202		0.0100	0.00500

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MSD	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	01/30/2012 15:00
Workgroup #:	WG388303	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301830-12
Sample Tag:	D02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5	0.192		0.0100	0.00500

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MSD	**Prep Method:**	SM4500-CN-C,G	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G	**Cal Date:**	02/03/2012 13:25
Workgroup #:	WG388635	**Analyst:**	JBK	**Run Date:**	02/03/2012 14:10
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1202031410-08
Sample Tag:	CN-A	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MSD	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	01/30/2012 15:00
Workgroup #:	WG388302	**Analyst:**	DLP	**Run Date:**	01/30/2012 18:00
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201301800-19
Sample Tag:	D01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.193		0.0100	0.00500

2.2.4.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
y = mx + b

Step 2: Calculate the instrument concentration, x

Where:

x = (y - b)/m

Step 3: Solve for analyte concentration in sample, Cx

Cx = (x) (D)

Example Calculation (LCS):

Value of m from plot:	7.809	
Value of b from plot:	0.0004135	
Absorbance of unknown from quantitation report (y):	0.31	
Calculated concentration (x):	0.03964483	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	0.0396	mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

y = Ax^2 + Bx + C

Step 3: Solve for analyte concentration in sample, Cy

Cy = (y) (D)

Example Calculation (LCS):

Value of A from plot:	101.2796	
Value of B from plot:	318.9056	
Value of C from plot:	-2.2712	
Absorbance of unknown from quantitation report (x):	0.1583	
Calculated concentration (y):	50.7495108	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	50.75	mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 30-JAN-2012
Analyst: DLP
Analyst: NA
Method: CN-WD
Instrument: UV-120-1V
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388302

Calibration/Linearity	01-30-12
Second Source Check	
ICV/CCV (std)	X
ICB/CCB	
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	
QC Violation Sheet	
Case Narratives	
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	
Primary Reviewer	DLP
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
31-JAN-2012

Secondary Reviewer:
01-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-01-2012 13:24:44

Microbac Laboratories Inc.

Data Checklist

Date: 30-JAN-2012
Analyst: DLP
Analyst: NA
Method: CN
Instrument: UV-120-1V
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388303

Calibration/Linearity	01-30-12
Second Source Check	
ICV/CCV (std)	X
ICB/CCB	
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	
QC Violation Sheet	
Case Narratives	
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	
Primary Reviewer	DLP
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
31-JAN-2012

Secondary Reviewer:
01-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-01-2012 13:25:33

Microbac Laboratories Inc.

Data Checklist

Date: 03-FEB-2012
Analyst: JBK
Analyst: NA
Method: CN-A
Instrument: UV-120-1V
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388635

Calibration/Linearity	02/03/12
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	
Case Narratives	
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JBK
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
03-FEB-2012

Secondary Reviewer:
06-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-06-2012 15:17:35

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9014-9010C

AAB#: WG388303

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12							14		01/30/12	3.2	14	
MPL-21-0112-MS	02	01/27/12							14		01/30/12	3.2	14	
MPL-21-0112-MSD	03	01/27/12							14		01/30/12	3.2	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2294840
Report generated 01/31/2012 15:00

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM4500-CN-C,G

AAB#: WG388635

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12							14		02/03/12	7	14	
MPL-21-0112-MS	02	01/27/12							14		02/03/12	7	14	
MPL-21-0112-MSD	03	01/27/12							14		02/03/12	7	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2299527
Report generated 02/06/2012 15:08

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM4500-CN-I

AAB#: WG388302

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12							14		01/30/12	3.1	14	
MPL-21-0112-MS	02	01/27/12							14		01/30/12	3.1	14	
MPL-21-0112-MSD	03	01/27/12							14		01/30/12	3.1	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2294818
Report generated 01/31/2012 14:58

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: 1V.1201301830-03
Prep Date: 01/30/12 18:30
Analyzed Date: 01/30/12 18:30
Analyst: DLP

Work Group: WG388303
Blank Sample ID: WG388303-01
Instrument ID: UV-120-1V
Method: 9014-9010C

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388303-02	1V.1201301830-04	01/30/12 18:30	
LCS	WG388303-03	1V.1201301830-05	01/30/12 18:30	
MPL-21-0112-1	L12010767-01	1V.1201301830-10	01/30/12 18:30	D02
MPL-21-0112-MS	L12010767-02	1V.1201301830-11	01/30/12 18:30	D02
MPL-21-0112-MSD	L12010767-03	1V.1201301830-12	01/30/12 18:30	D02
DUP	WG388303-06	1V.1201301830-15	01/30/12 18:30	

Report Name: BLANK_SUMMARY
PDF File ID: 2294841
Report generated 01/31/2012 15:01

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: 1V.1202031410-01
Prep Date: 02/03/12 14:10
Analyzed Date: 02/03/12 14:10
Analyst: JBK

Work Group: WG388635
Blank Sample ID: WG388635-01
Instrument ID: UV-120-1V
Method: SM4500-CN-C,G

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388635-02	1V.1202031410-02	02/03/12 14:10	CN-A
MPL-21-0112-1	L12010767-01	1V.1202031410-06	02/03/12 14:10	CN-A
MPL-21-0112-MS	L12010767-02	1V.1202031410-07	02/03/12 14:10	CN-A
MPL-21-0112-MSD	L12010767-03	1V.1202031410-08	02/03/12 14:10	CN-A
DUP	WG388635-07	1V.1202031410-20	02/03/12 14:10	CN-A

Report Name: BLANK_SUMMARY
PDF File ID: 2299528
Report generated 02/06/2012 15:08

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: 1V.1201301800-03
Prep Date: 01/30/12 18:00
Analyzed Date: 01/30/12 18:00
Analyst: DLP

Work Group: WG388302
Blank Sample ID: WG388302-01
Instrument ID: UV-120-1V
Method: SM4500-CN-I

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388302-02	1V.1201301800-04	01/30/12 18:00	
LCS	WG388302-03	1V.1201301800-05	01/30/12 18:00	
MPL-21-0112-1	L12010767-01	1V.1201301800-17	01/30/12 18:00	D01
MPL-21-0112-MS	L12010767-02	1V.1201301800-18	01/30/12 18:00	D01
MPL-21-0112-MSD	L12010767-03	1V.1201301800-19	01/30/12 18:00	D01
DUP	WG388302-06	1V.1201301800-22	01/30/12 18:00	

Report Name: BLANK_SUMMARY
PDF File ID: 2294819
Report generated 01/31/2012 14:58

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 01/30/12 18:30 Sample ID: WG388303-01
Instrument ID: UV-120-1V Run Date: 01/30/12 18:30 Prep Method: 9014-9010C
File ID: 1V.1201301830-03 Analyst: DLP Method: 9014-9010C
Workgroup (AAB#): WG388303 Matrix: Water Units: mg/L
Contract #: Cal ID: UV-120-30-JAN-12

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Cyanide	0.00500	0.0100	0.00500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name: BLANK
PDF ID: 2294842
31-JAN-2012 15:01

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 02/03/12 14:10 Sample ID: WG388635-01
Instrument ID: UV-120-1V Run Date: 02/03/12 14:10 Prep Method: SM4500-CN-C,G
File ID: 1V.1202031410-01 Analyst: JBK Method: SM4500-CN-C,G
Workgroup (AAB#): WG388635 Matrix: Water Units: mg/L
Contract #: Cal ID: UV-120 - 03-FEB-12

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Cyanide, Amenable to Chlor.	0.00500	0.0100	0.00500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 2299529
06-FEB-2012 15:08

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 01/30/12 18:00 Sample ID: WG388302-01
Instrument ID: UV-120-1V Run Date: 01/30/12 18:00 Prep Method: SM4500-CN-I
File ID: 1V.1201301800-03 Analyst: DLP Method: SM4500-CN-I
Workgroup (AAB#): WG388302 Matrix: Water Units: mg/L
Contract #: Cal ID: UV-120 - 30-JAN-12

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Cyanide, Weak/Dissociable	0.00500	0.0100	0.00500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 2294820
31-JAN-2012 14:58

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Run Date: 01/30/2012 Sample ID: WG388303-02
Instrument ID: UV-120-1V Run Time: 18:30 Prep Method: 9014-9010C
File ID: 1V.1201301830-04 Analyst: DLP Method: 9014-9010C
Workgroup (AAB#): WG388303 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD48862 Cal ID: UV-120-30-JAN-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Cyanide	0.200	0.198	98.8	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2294843
Report generated: 01/31/2012 15:01

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Run Date: 01/30/2012 Sample ID: WG388303-03
Instrument ID: UV-120-1V Run Time: 18:30 Prep Method: 9014-9010C
File ID: 1V.1201301830-05 Analyst: DLP Method: 9014-9010C
Workgroup (AAB#): WG388303 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD48862 Cal ID: UV-120-30-JAN-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Cyanide	0.0400	0.0410	103	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2294843
Report generated: 01/31/2012 15:01

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Run Date: 02/03/2012 Sample ID: WG388635-02
Instrument ID: UV-120-1V Run Time: 14:10 Prep Method: SM4500-CN-C,G
File ID: 1V.1202031410-02 Analyst: JBK Method: SM4500-CN-C,G
Workgroup (AAB#): WG388635 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD48862 Cal ID: UV-120-03-FEB-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Cyanide, Amenable to Chlor.	2.00	0.00113	0.0566	90 - 110	*

LCS - Modified 03/06/2008
PDF File ID: 2299530
Report generated: 02/06/2012 15:08

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Run Date: 01/30/2012 Sample ID: WG388302-02
Instrument ID: UV-120-1V Run Time: 18:00 Prep Method: SM4500-CN-I
File ID: 1V.1201301800-04 Analyst: DLP Method: SM4500-CN-I
Workgroup (AAB#): WG388302 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD48862 Cal ID: UV-120 - 30-JAN-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Cyanide, Weak/Dissociable	0.200	0.201	101	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2294821
Report generated: 01/31/2012 14:58

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Run Date: 01/30/2012 Sample ID: WG388302-03
Instrument ID: UV-120-1V Run Time: 18:00 Prep Method: SM4500-CN-I
File ID: 1V.1201301800-05 Analyst: DLP Method: SM4500-CN-I
Workgroup (AAB#): WG388302 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD48862 Cal ID: UV-120 - 30-JAN-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Cyanide, Weak/Dissociable	0.0400	0.0386	96.5	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2294821
Report generated: 01/31/2012 14:58

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: UV-120-1V- 30-JAN-12 Worknum: WG388303

Instrument ID: UV-120-1V Contract #: Prep Method: 9014-9010C

Parent ID: L12010767-01 File ID: 1V.1201301830-10 Dil: 1 Method: 9014-9010C

Sample ID: L12010767-02 MS File ID: 1V.1201301830-11 Dil: 1 Matrix: Water

Sample ID: L12010767-03 MSD File ID: 1V.1201301830-12 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Cyanide	U	0.200	0.194	96.8	0.200	0.192	96.2	0.668	80 - 120	20	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2294844
Report generated 01/31/2012 15:01

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: UV-120-1V- 03-FEB-12 Worknum: WG388635

Instrument ID: UV-120-1V Contract #: Prep Method: SM4500-CN-C,G

Parent ID: L12010767-01 File ID: 1V.1202031410-06 Dil: 1 Method: SM4500-CN-C,G

Sample ID: L12010767-02 MS File ID: 1V.1202031410-07 Dil: 1 Matrix: Water

Sample ID: L12010767-03 MSD File ID: 1V.1202031410-08 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Cyanide, Amenable to Chlor.	U	0.200	0	0	0.200	0	0	NA	80 - 120	20	*#

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2299531
Report generated 02/06/2012 15:08

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: UV-120-1V- 30-JAN-12 Worknum: WG388302
Instrument ID: UV-120-1V Contract #: Prep Method: SM4500-CN-I
Parent ID: L12010767-01 File ID: 1V.1201301800-17 Dil: 1 Method: SM4500-CN-I
Sample ID: L12010767-02 MS File ID: 1V.1201301800-18 Dil: 1 Matrix: Water
Sample ID: L12010767-03 MSD File ID: 1V.1201301800-19 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Cyanide, Weak/Dissociable	U	0.200	0.202	101	0.200	0.193	96.5	4.57	90 - 110	15	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2294822
Report generated 01/31/2012 14:58

2.2.4.3 Raw Data

Curves

WG 388298

Parameter: CN - LOW

Spectrophotometer: WV-120 \ IV

Calibration (Curve) standard stock: STD 48861

Concentration: 990 mg/L

Recipe for preparation of curve standards found in:

SOP: K3354 Revision: 14 Page: 15

Second Source Stock: ~~STD48862~~ (concentration: 1000 mg/L)

Daily Preparation: 5(1000)/250 = 20

~~10(20)/100 = 2~~

concentration = 5(2)/250 = 0.2

1(2)/250 = 0.04

	Calibration Standards (mg/L)	Volume (mL)	Cell Size (cm)	Wavelength (nm)	Absorbance
0.0495	STD 5 0.05	50	5 cm	528	~~0.395~~ 0.394
0.0296	STD 6 0.04			DUP 01-30-12	~~0.296~~ 0.296 0.296
0.0297	STD 7 0.03			DUP 01-30-12	~~0.194~~ 0.210
0.0198	STD 8 0.02			DUP 01-30-12	~~0.141~~ ~~0.150~~ 0.151
0.0094	STD 9 0.01			DUP 01-30-12	~~0.069~~ 0.071
0.00495	STD 10 0.005			DUP 01-30-12	~~0.035~~ 0.034
	STD 11 0.00				0.000
	2nd Source 0.04				0.313

Analyst: [signature] Date/Time: 01-30-12/1515

DCN#89759

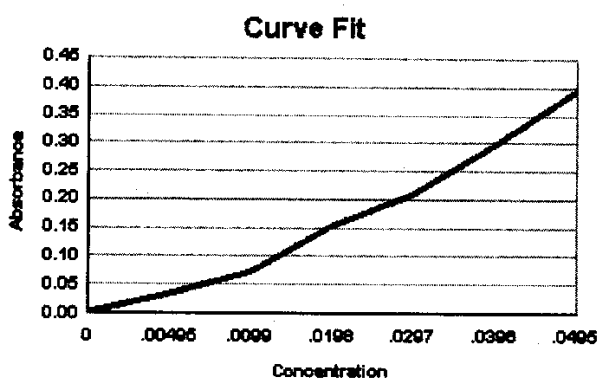
Microbac Laboratories Inc.
INITIAL CALIBRATION

Workgroup: WG388298
Analytical Method: 300
Instrument ID: UV-120-1V

Analyst: DLP
Initial Calibration Date: 01/30/2012

Analyte: CYANIDE
Number of Points: 7
Slope: 7.79122
Y-Intercept: -0.00565188
Coef. Of Correlation (R^2): 0.995762
Coef. Of Correlation (R): 0.997879

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00	0.00	0.00	-0.00565188
0.00495	0.0340	0.0000245	0.000168	0.0329147
0.00990	0.0710	0.0000980	0.000703	0.0714812
0.0198	0.151	0.000392	0.00299	0.148614
0.0297	0.210	0.000882	0.00624	0.225747
0.0396	0.296	0.00157	0.0117	0.302881
0.0495	0.394	0.00245	0.0195	0.380014



WG_ICAL_CAL_WET - Modified 03/06/2008
Report generated 01/30/2012 17:17

[redacted]

Microbac Laboratories Inc.
ALTERNATE SOURCE REPORT

Workgroup #: WG388298
File ID: 1V.1201301515-08
CCV ID: WG388298-08
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 15:15
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12 15:15:07

Analyte	Expected	Found	RF	%D	Q
Cyanide	.04	0.0409	7.83	2.3	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_SSCV - Modified 03/06/2008
Report generated 01/30/2012 17:17

[redacted]

Curves

WG 388297

Parameter: CN- High

Spectrophotometer: UV 120-1V

Calibration (Curve) standard stock: ST D4 8861

Concentration: 990 mg/L

Recipe for preparation of curve standards found in:
SOP: K3354 Revision: 14 Page: 15

Second Source Stock: ST D4 8862 (concentration: 1000 mg/L)

Daily Preparation: 5(1000)/250 = 20
10(20)/100 = 2
concentration = 5(2)/50 = 0.2

	Calibration Standards (mg/L)	Volume (mL)	Cell Size (cm)	Wavelength (nm)	Absorbance
0.396	STD 1 0.4	50	1cm	578	0.614
0.297	STD 2 0.3				0.455
0.198	STD 3 0.2				0.306
0.099	STD 4 0.1				0.150
0.0396	STD 6 0.04				0.058
0.0198	STD 8 0.02				0.028
~~0.0099~~	STD 11 0.00				0.000
DW 01-30-12					
	2nd Source 0.2				0.333

Analyst: Christy Rainer Date/Time: 01-30-12/1500

DCN#89758

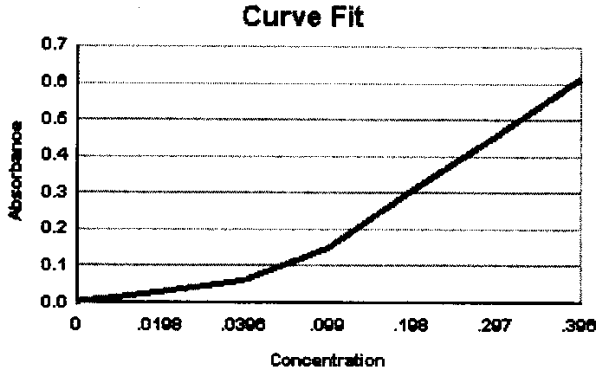
Microbac Laboratories Inc.
INITIAL CALIBRATION

Workgroup: WG388297
Analytical Method: 300
Instrument ID: UV-120-1V

Analyst: DLP
Initial Calibration Date: 01/30/2012

Analyte: CYANIDE
Number of Points: 7
Slope: 1.55085
Y-Intercept: -0.00235137
Coef. Of Correlation (R^2): 0.999924
Coef. Of Correlation (R): 0.999962

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00	0.00	0.00	-0.00235137
0.0198	0.0280	0.000392	0.000554	0.0283554
0.0396	0.0580	0.00157	0.00230	0.0590622
0.0990	0.150	0.00980	0.0149	0.151183
0.198	0.306	0.0392	0.0606	0.304716
0.297	0.455	0.0882	0.135	0.458250
0.396	0.614	0.157	0.243	0.611784



WG_ICAL_CAL_WET - Modified 03/06/2008
Report generated 01/30/2012 16:44

[redacted]

Microbac Laboratories Inc.
ALTERNATE SOURCE REPORT

Workgroup #: WG388297
File ID: 1V.1201301500-08
CCV ID: WG388297-08
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 15:00
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12 15:00:07

Analyte	Expected	Found	RF	%D	Q
Cyanide	.2	0.216	1.67	8.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_SSCV - Modified 03/06/2008
Report generated 01/30/2012 16:45

[redacted]

388772

Curves

Parameter: Cyanide Low

Spectrophotometer: UV-1 LO-1U

Calibration (Curve) standard stock: STO 48861

Concentration: 990 mg/L

Recipe for preparation of curve standards found in:

SOP: K3354 Revision: 14 Page: 15

Second Source Stock: STO 48861 (concentration: 1000 mg/L

Daily Preparation: 5(100)/250=20
10(20)/100=2
concentration = 1(2)/50 = 0.04

Calibration Standards (mg/L)	Volume (mL)	Cell Size (cm)	Wavelength (nm)	Absorbance
0.000	50	5	578	0.000
0.00495				0.034
0.0099				0.075
0.0198				0.152
0.0297				0.231
0.0396				0.310
0.0495				0.393
ICV (0.04)				0.317

Analyst: [signature] Date/Time: 2/3/12/1325

DCN#89825

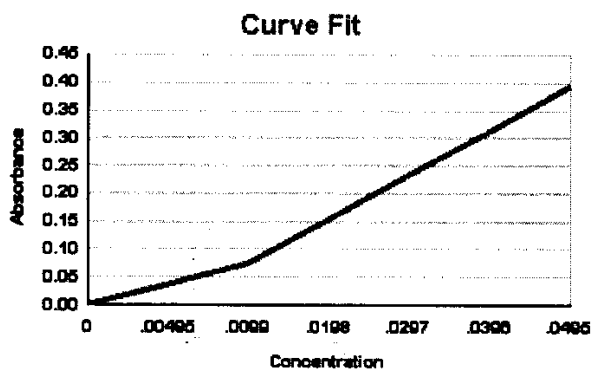
Microbac Laboratories Inc.
INITIAL CALIBRATION

Workgroup: WG388772
Analytical Method: 300
Instrument ID: UV-120-1V

Analyst: JBK
Initial Calibration Date: 02/03/2012

Analyte: CYANIDE
Number of Points: 7
Slope: 7.93705
Y-Intercept: -0.00299147
Coef. Of Correlation (R^2): 0.999780
Coef. Of Correlation (R): 0.999890

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00	0.00	0.00	-0.00299147
0.00495	0.0360	0.0000245	0.000178	0.0362969
0.00990	0.0750	0.0000980	0.000743	0.0755853
0.0198	0.152	0.000392	0.00301	0.154162
0.0297	0.231	0.000882	0.00686	0.232739
0.0396	0.310	0.00157	0.0123	0.311316
0.0495	0.393	0.00245	0.0195	0.389892



WG_ICAL_CAL_WET - Modified 03/06/2008
Report generated 02/03/2012 14:22

[redacted]

Microbac Laboratories Inc.
ALTERNATE SOURCE REPORT

Workgroup #: WG388772
File ID: 1V.1202031325-08
CCV ID: WG388772-08
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/03/2012
Run Time: 13:25
Analyst: JBK
Cal ID: UV-120 - 03-FEB-12 13:25:07

Analyte	Expected	Found	RF	%D	Q
Cyanide	.04	0.0403	7.93	0.8	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_SSCV - Modified 03/06/2008
Report generated 02/03/2012 14:22

[redacted]

WORKGROUP: WG388302

CYANIDE

[] Total method 9010B/9014
SM4500 CN C,E
EPA 335.2
[✓] WD method SM4500 CN I

Matrix: (Liquid (mg/L)) Soil (mg/Kg)

SOP #: K3354 Revision 14

CCV(Cal STDs): 488611 TRUE VALUE: 990
Daily dilution: 5(990)/250 = 19.8
1(1.98)/50 = 0.198
5(19.8)/100 = 1.98
5(1.98)/50 = 0.198

LCS STOCK: 488612 TRUE VALUE: 1000
Daily dilution: 5(1000)/250 = 20
10(20)/100 = 2
5(2)/50 = 0.2
10(2)/50 = 0.04

curve reference: 388297 388298
Spec: UV-120-1V 01-30-12

SPIKE: (daily dilution) 5(2)/50 = 0.2
(same stock as LCS)

Sample	Volume mL/grams	pH>12	Sulfide Presence	Dilution	Cell Size (cm)	Absorbance λ = 578 nm
CCV (high): 0.198 ppm	50				1cm	0.302
CCV (low): 0.0396 ppm	50				5cm	0.296
Blank	50	yes	NO		5cm	0.008
LCS: 0.2 ppm	50	✓	✓		1cm	0.310
LCS: 0.04 ppm	50	✓	✓		5cm	0.295
01-626-01	5	✓	✓	YSD	1cm	0.239
-02	50	✓	✓		5cm	0.032
Ref 01-613-01	50	✓	✓	DF 01-30-12	~~5cm~~ 1cm	0.093
01-651-01	50	✓	✓		5cm	0.103
MS -02	50	✓	✓		1cm	0.341
MSD 03	50	✓	✓		1cm	0.336
01-652-01	50	✓	✓		5cm	0.147
-02	50	✓	✓		5cm	0.241
01-686-01	50	✓	✓		5cm	0.283
-02	50	✓	✓		5cm	0.190
-03	50	✓	✓		5cm	0.008
Ref 01-767-01	50	✓	✓		5cm	0.008
MS 02	50	✓	✓		1cm	0.311
MSD 03	50	✓	✓		1cm	0.297
STD 0.2	50	✓	✓		1cm	0.301
STD 0.02	50	✓	✓		5cm	0.148
Duplicate: 01-651-01	50	yes	NO		5cm	0.105
MS: (ppm)						
MSD: (ppm)						
CCV high: (ppm) 0.198	50				1cm	0.303
CCV (low): (ppm) 0.0396	50				5cm	0.295

ANALYST: Quattey Pieper

DATE/TIME: (on) 01-30-12 / 1020
(off) 01-30-12 / 1150
(color) 01-30-12 / 1310

DCN#89760

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG388302 **Analyst:** DLP
Analyte: CYANIDE **Date:** 01/30/2012

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG388302-01	50	50	0.00800	7.791	-0.005652	0.0017522	0.0017522	1	mg/L
WG388302-02	50	50	0.310	1.551	-0.002351	0.20141	0.20141	1	mg/L
WG388302-03	50	50	0.295	7.791	-0.005652	0.038589	0.038589	1	mg/L
L12010626-01	5	50	0.239	1.551	-0.002351	0.15563	77.813	50	mg/L
L12010626-02	50	50	0.0320	7.791	-0.005652	0.0048326	ND	1	mg/L
L12010613-01	50	50	0.0930	1.551	-0.002351	0.061483	0.061483	1	mg/L
WG388302-04	50	50	0.103	7.791	-0.005652	0.013945	0.013945	1	mg/L
L12010651-01	50	50	0.103	7.791	-0.005652	0.013945	0.013945	1	mg/L
WG388302-07	50	50	0.341	1.551	-0.002351	0.22140	0.22140	1	mg/L
L12010651-02	50	50	0.341	1.551	-0.002351	0.22140	0.22140	1	mg/L
L12010651-03	50	50	0.336	1.551	-0.002351	0.21817	0.21817	1	mg/L
WG388302-08	50	50	0.336	1.551	-0.002351	0.21817	0.21817	1	mg/L
L12010652-01	50	50	0.147	7.791	-0.005652	0.019593	0.019593	1	mg/L
L12010652-02	50	50	0.241	7.791	-0.005652	0.031658	0.031658	1	mg/L
L12010686-01	50	50	0.283	7.791	-0.005652	0.037048	0.037048	1	mg/L
L12010686-02	50	50	0.190	7.791	-0.005652	0.025112	0.025112	1	mg/L
L12010686-03	50	50	0.00800	7.791	-0.005652	0.0017522	ND	1	mg/L
L12010767-01	50	50	0.00800	7.791	-0.005652	0.0017522	ND	1	mg/L
WG388302-05	50	50	0.00800	7.791	-0.005652	0.0017522	0.0017522	1	mg/L
WG388302-09	50	50	0.311	1.551	-0.002351	0.20205	0.20205	1	mg/L
L12010767-02	50	50	0.311	1.551	-0.002351	0.20205	0.20205	1	mg/L
WG388302-10	50	50	0.297	1.551	-0.002351	0.19302	0.19302	1	mg/L
L12010767-03	50	50	0.297	1.551	-0.002351	0.19302	0.19302	1	mg/L
WG388302-06	50	50	0.105	7.791	-0.005652	0.014202	0.014202	1	mg/L

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated 01/31/2012 14:55

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG388388
File ID: 1V.1201301800-20
CCV ID: WG388388-03
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:00
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.198	0.196	1.52	1.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 01/31/2012 12:48

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG388388
File ID: 1V.1201301800-21
CCV ID: WG388388-04
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:00
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0198	0.0197	7.47	0.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 01/31/2012 12:48

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388388
File ID: 1V.1201301800-02
CCV ID: WG388388-02
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:00
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0396	0.0387	7.47	2.3	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 01/31/2012 12:40

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388388
File ID: 1V.1201301800-23
CCV ID: WG388388-05
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:00
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.198	0.197	1.53	0.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 01/31/2012 12:40

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388388
File ID: 1V.1201301800-24
CCV ID: WG388388-06
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:00
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0396	0.0386	7.45	2.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 01/31/2012 12:40

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388388
File ID: 1V.1201301800-01
CCV ID: WG388388-01
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:00
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.198	0.196	1.53	1.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 01/31/2012 12:40

[redacted]

WORKGROUP: WG388303

CYANIDE

☑ Total method 9010B/9014
SM4500 CN C,E
EPA 335.2
☐ WD method SM4500 CN I

Matrix: (Liquid) Soil
(mg/L) (mg/Kg)

SOP #: K3354 Revision 14

CCV(Cal STDs): 48861 TRUE VALUE: 990
Daily dilution: 5(990)/250 = 19.80
10(19.8)/200 = 1.98
5(1.98)/50 = 0.198
2(1.98)/50 = 0.0396

LCS STOCK: 48862 TRUE VALUE: 1000
Daily dilution: 5(1000)/250 = 20
10(20)/100 = 2
5(2)/50 = 0.2
2(2)/50 = 0.04

curve reference: 388297 388298
Spec: UV-120-1V 1-30-12

SPIKE: (daily dilution) 5(2)/50 = 0.2
(same stock as LCS)

Sample	Volume mL/grams	pH>12	Sulfide Presence	Dilution	Cell Size (cm)	Absorbance λ = 578 nm
CCV (high): 0.198 ppm	50				1cm	01-30-12 0.302
CCV (low) 0.0396 ppm	50				5cm	0.295
Blank	50	yes	No		5cm	0.004
LCS: 0.2 ppm	50				1cm	0.304
LCS: 0.04 ppm	50				5cm	0.314
01-718-06	50				5cm	0.016
01-686-01	50				1cm	0.562
-02	50				1cm	0.542
-03	50				5cm	0.016
Ref 01-767-01	50				5cm	0.008
ms 02	50				1cm	0.298
msD 03	50				1cm	0.296
STD 0.2	50				1cm	0.297
STD 0.02	50				5cm	0.155
Duplicate: 01-718-06	50	yes	No		5cm	0.015
MS: (ppm)						
MSD: (ppm)						
CCV high: (ppm) 0.198	50				1cm	0.303
CCV (low): (ppm) 0.0396	50				5cm	0.295

ANALYST: Quentin Rupe

DATE/TIME: (on) 01-30-12 / 1415
(off) 01-30-12 / 1545
(color) 01-30-12 / 1830

DCN#89761

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG388303 **Analyst:** DLP
Analyte: CYANIDE **Date:** 01/30/2012

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG388303-01	50	50	0.00400	7.791	-0.005652	0.0012388	0.0012388	1	mg/L
WG388303-02	50	50	0.304	1.551	-0.002351	0.19754	0.19754	1	mg/L
WG388303-03	50	50	0.314	7.791	-0.005652	0.041027	0.041027	1	mg/L
L12010718-06	50	50	0.0160	7.791	-0.005652	0.0027790	ND	1	mg/L
WG388303-04	50	50	0.0160	7.791	-0.005652	0.0027790	0.0027790	1	mg/L
L12010686-01	50	50	0.562	1.551	-0.002351	0.36390	0.36390	1	mg/L
L12010686-02	50	50	0.542	1.551	-0.002351	0.35100	0.35100	1	mg/L
L12010686-03	50	50	0.0160	7.791	-0.005652	0.0027790	ND	1	mg/L
L12010767-01	50	50	0.00800	7.791	-0.005652	0.0017522	ND	1	mg/L
WG388303-05	50	50	0.00800	7.791	-0.005652	0.0017522	0.0017522	1	mg/L
L12010767-02	50	50	0.298	1.551	-0.002351	0.19367	0.19367	1	mg/L
WG388303-07	50	50	0.298	1.551	-0.002351	0.19367	0.19367	1	mg/L
L12010767-03	50	50	0.296	1.551	-0.002351	0.19238	0.19238	1	mg/L
WG388303-08	50	50	0.296	1.551	-0.002351	0.19238	0.19238	1	mg/L
WG388303-06	50	50	0.0150	7.791	-0.005652	0.0026507	0.0026507	1	mg/L

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated 01/31/2012 13:40

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG388399
File ID: 1V.1201301830-13
CCV ID: WG388399-03
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:30
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.198	0.193	1.50	2.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 01/31/2012 13:42

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG388399
File ID: 1V.1201301830-14
CCV ID: WG388399-04
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:30
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0198	0.0206	7.83	4.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 01/31/2012 13:42

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388399
File ID: 1V.1201301830-01
CCV ID: WG388399-01
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:30
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.198	0.196	1.53	1.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 01/31/2012 13:36

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388399
File ID: 1V.1201301830-02
CCV ID: WG388399-02
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:30
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0396	0.0386	7.45	2.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 01/31/2012 13:36

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388399
File ID: 1V.1201301830-16
CCV ID: WG388399-05
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:30
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.198	0.197	1.53	0.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 01/31/2012 13:36

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388399
File ID: 1V.1201301830-17
CCV ID: WG388399-06
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 01/30/2012
Run Time: 18:30
Analyst: DLP
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0396	0.0386	7.45	2.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 01/31/2012 13:36

[redacted]

WORKGROUP: WG388635

CYANIDE

[X] Total method 9010B/9014
SM4500 CN C,E
EPA 335.2 Amenable
[] WD method SM4500 CN I

Matrix: Liquid (mg/L) Soil (mg/Kg)

SOP #: K3354 Revision 14

CCV(Cal STDs): 48861 TRUE VALUE: 990
Daily dilution: 5(990)/250 = 19.8
10(19.8)/100 = 1.98
20(1.98)/100 = 0.198 5/50(0.198) = 0.0198

LCS STOCK: 48862 TRUE VALUE: 1000
Daily dilution: 5(1000)/250 = 20
10(20)/100 = 2

curve reference: 2/3/12
Spec: UV-120-1V

SPIKE: (daily dilution) 5(2)/50 = 0.2
(same stock as LCS)

Sample	Volume mL/grams	pH>12	Sulfide Presence	Dilution	Cell Size (cm)	Absorbance λ = 578 nm
CCV (high): ____ ppm	50	✓	X=none			
CCV (low): 0.02 ppm		✓	X		5	0.155
Blank		✓	X			0.004
LCS: 2.0 ppm		✓	X			0.006
LCS: ____ ppm	—					
01-686-01	50	✓	X			0.012
-02		✓	X			0.021
-03		✓	X			0.044
01-767-01 Ref		✓	X			0.026
MS -02		✓	X			0.025
SD -03		✓	X			0.025
01-798-01		✓	X			0.009
02-014-01 Ref		✓	X			0.306
MS -02		✓	X			0.300
SD -03		✓	X			0.310
-04		✓	X			0.152
-05		✓	X			0.102
-06		✓	X			0.108
-07		✓	X			0.091
02-044-01		✓	X			0.003
-02		✓	X			0.092
-03		✓	X			0.087
~~Dup 016-01~~		✓	X			0.311
Duplicate:						
MS: (ppm)						
MSD: (ppm)						
CCV high: (ppm)	50	✓	X			—
CCV (low): (0.02 ppm)		✓	X		5	0.157

ANALYST: [signature]

DATE/TIME: (on) 2/3/12 / 1100
(off) 1240
(color) 1410

DCN#89809

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG388303
Analyte: CYANIDE (TOTAL)

Analyst: DLP
Date: 01/30/2012

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG388303-01	50	50	0.00400	7.791	-0.005652	0.0012388	0.0012388	1	mg/L
WG388303-02	50	50	0.304	1.551	-0.002351	0.19754	0.19754	1	mg/L
WG388303-03	50	50	0.314	7.791	-0.005652	0.041027	0.041027	1	mg/L
L12010718-06	50	50	0.0160	7.791	-0.005652	0.0027790	ND	1	mg/L
WG388303-04	50	50	0.0160	7.791	-0.005652	0.0027790	0.0027790	1	mg/L
L12010686-01	50	50	0.562	1.551	-0.002351	0.36390	0.36390 ✓	1	mg/L
L12010686-02	50	50	0.542	1.551	-0.002351	0.35100	0.35100 ✓	1	mg/L
L12010686-03	50	50	0.0160	7.791	-0.005652	0.0027790	ND ✓	1	mg/L
L12010767-01	50	50	0.00800	7.791	-0.005652	0.0017522	ND ✓	1	mg/L
WG388303-05	50	50	0.00800	7.791	-0.005652	0.0017522	0.0017522	1	mg/L
L12010767-02	50	50	0.298	1.551	-0.002351	0.19367	0.19367 MS	1	mg/L
WG388303-07	50	50	0.298	1.551	-0.002351	0.19367	0.19367	1	mg/L
L12010767-03	50	50	0.296	1.551	-0.002351	0.19238	0.19238 SD	1	mg/L
WG388303-08	50	50	0.296	1.551	-0.002351	0.19238	0.19238	1	mg/L
WG388303-06	50	50	0.0150	7.791	-0.005652	0.0026507	0.0026507	1	mg/L

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated 02/03/2012 14:34

[redacted]

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG388634 **Analyst:** JBK
Analyte: CYANIDE (TOTAL) **Date:** 02/03/2012

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG388634-01	50	50	0.00600	7.937	-0.002991	0.0011328	0.0011328	1	mg/L
WG388634-02	50	50	0.317	1.584	-0.001929	0.20132	0.20132	1	mg/L
WG388634-03	50	50	0.313	7.937	-0.002991	0.039812	0.039812	1	mg/L
L12010808-05	50	50	0.317	1.584	-0.001929	0.20132	0.20132	1	mg/L
WG388634-04	50	50	0.317	1.584	-0.001929	0.20132	0.20132	1	mg/L
L12020012-02	50	50	0.104	7.937	-0.002991	0.013480	0.013480	1	mg/L
L12010798-01	50	50	0.0270	7.937	-0.002991	0.0037787	ND	1	mg/L
L12020016-01	50	50	0.281	1.584	-0.001929	0.17860	0.35720	2	mg/L
WG388634-05	50	50	0.281	1.584	-0.001929	0.17860	0.35720	2	mg/L
L12020016-02	50	50	0.440	1.584	-0.001929	0.27897	0.55793	2	mg/L
WG388634-07	50	50	0.440	1.584	-0.001929	0.27897	0.55793	2	mg/L
L12020016-03	50	50	0.441	1.584	-0.001929	0.27960	0.55920	2	mg/L
WG388634-08	50	50	0.441	1.584	-0.001929	0.27960	0.55920	2	mg/L
L12020016-04	50	50	0.390	1.584	-0.001929	0.24740	0.24740	1	mg/L
L12020016-05	50	50	0.368	1.584	-0.001929	0.23352	0.23352	1	mg/L
L12020016-06	50	50	0.445	1.584	-0.001929	0.28212	0.28212	1	mg/L
L12020016-07	50	50	0.255	1.584	-0.001929	0.16219	0.16219	1	mg/L
L12020032-02	50	50	0.0540	7.937	-0.002991	0.0071804	ND	1	mg/L
L12020044-01	50	50	0.00800	7.937	-0.002991	0.0013848	ND	1	mg/L
L12020044-02	50	50	0.381	1.584	-0.001929	0.24172	0.24172	1	mg/L
L12020044-03	50	50	0.349	1.584	-0.001929	0.22152	0.22152	1	mg/L
WG388634-06	50	50	0.312	1.584	-0.001929	0.19817	0.19817	1	mg/L

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated 02/03/2012 14:29

[redacted]

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG388635
Analyte: CYANIDE (TREATED)

Analyst: JBK
Date: 02/03/2012

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG388635-01	50	50	0.00400	7.937	-0.002991	0.00088086	0.00088086	1	mg/L
WG388635-02	50	50	0.00600	7.937	-0.002991	0.0011328	0.0011328	1	mg/L
L12010686-01	50	50	0.0120	7.937	-0.002991	0.0018888	ND	1	mg/L
L12010686-02	50	50	0.0210	7.937	-0.002991	0.0030227	ND	1	mg/L
L12010686-03	50	50	0.0440	7.937	-0.002991	0.0059205	0.0059205 F	1	mg/L
L12010767-01	50	50	0.0260	7.937	-0.002991	0.0036527	ND	1	mg/L
WG388635-03	50	50	0.0260	7.937	-0.002991	0.0036527	0.0036527	1	mg/L
L12010767-02	50	50	0.0250	7.937	-0.002991	0.0035267	ND	1	mg/L
WG388635-04	50	50	0.0250	7.937	-0.002991	0.0035267	0.0035267	1	mg/L
L12010767-03	50	50	0.0250	7.937	-0.002991	0.0035267	ND	1	mg/L
WG388635-05	50	50	0.0250	7.937	-0.002991	0.0035267	0.0035267	1	mg/L
L12010798-01	50	50	0.00900	7.937	-0.002991	0.0015108	ND	1	mg/L
L12020016-01	50	50	0.306	7.937	-0.002991	0.038930	0.038930	1	mg/L
WG388635-06	50	50	0.306	7.937	-0.002991	0.038930	0.038930	1	mg/L
L12020016-02	50	50	0.300	7.937	-0.002991	0.038174	0.038174	1	mg/L
WG388635-08	50	50	0.300	7.937	-0.002991	0.038174	0.038174	1	mg/L
L12020016-03	50	50	0.310	7.937	-0.002991	0.039434	0.039434	1	mg/L
WG388635-09	50	50	0.310	7.937	-0.002991	0.039434	0.039434	1	mg/L
L12020016-04	50	50	0.152	7.937	-0.002991	0.019528	0.019528	1	mg/L
L12020016-05	50	50	0.102	7.937	-0.002991	0.013228	0.013228	1	mg/L
L12020016-06	50	50	0.108	7.937	-0.002991	0.013984	0.013984	1	mg/L
L12020016-07	50	50	0.0910	7.937	-0.002991	0.011842	0.011842	1	mg/L
L12020044-01	50	50	0.00300	7.937	-0.002991	0.00075487	ND	1	mg/L
L12020044-02	50	50	0.0920	7.937	-0.002991	0.011968	0.011968	1	mg/L
L12020044-03	50	50	0.0870	7.937	-0.002991	0.011338	0.011338	1	mg/L
WG388635-07	50	50	0.311	7.937	-0.002991	0.039560	0.039560	1	mg/L

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated 02/03/2012 14:36

[redacted]

Cyanide, Amenable to Chlorination (mg/L)
CN (Total) - CN (Treated) = CN-A

SAMPLE	1/30/2012 CN (Total)	2/3/2012 CN (Treated)	CN-A
L12010686-01	0.3639	0.0018888	0.362011
L12010686-02	0.351	0.0030227	0.347977
L12010686-03	0.002779	0.0059205	-0.003142
L12010767-01	0.0017522	0.0036527	-0.001901
L12010767-02	0.0017522	0.0036527	-0.001901
L12010767-03	0.0017522	0.0036527	-0.001901
L12010798-01	0.0037787	0.0015108	0.002268
L12020016-01	0.3572	0.03893	0.31827
L12020016-02	0.3572	0.03893	0.31827
L12020016-03	0.3572	0.03893	0.31827
L12020016-04	0.2474	0.019528	0.227872
L12020016-05	0.23352	0.013228	0.220292
L12020016-06	0.28212	0.013984	0.268136
L12020016-07	0.16219	0.011842	0.150348
L12020044-01	0.0013848	0.00075487	0.00063
L12020044-02	0.24172	0.011968	0.229752
L12020044-03	0.22152	0.011338	0.210182
			0
			0

Cyanide, Amenable to Chlorination (CN-A) is the difference between the total cyanide and the treated cyanide. The LCS is analyzed to verify that all of the cyanide in the spike solution is amenable (the treated portion is ND)

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388776
File ID: 1V.1202031410-22
CCV ID: WG388776-02
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/03/2012
Run Time: 14:10
Analyst: JBK
Cal ID: UV-120 - 03-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0198	0.0202	7.93	2.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 02/03/2012 14:36

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388776
File ID: 1V.1202031410-21
CCV ID: WG388776-01
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/03/2012
Run Time: 14:10
Analyst: JBK
Cal ID: UV-120 - 03-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0198	0.0199	7.83	0.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 02/03/2012 14:36

[redacted]

2.2.5 Conductivity Data

2.2.5.1 Summary Data

Login Number: L12010767
Department: Conventionals
Analyst: Dorothy Payne

METHOD

Analysis EPA 120.1/SM2510 B (Conductivity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: Recoveries out of range were observed for the following analytes: Conductivity. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 42083
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	YSI-32
Client ID:	MPL-21-0112-1	**Prep Method:**	120.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	120.1	**Cal Date:**	
Workgroup #:	WG388884	**Analyst:**	DLP	**Run Date:**	02/06/2012 14:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	32.1202061430-03
Sample Tag:		**Units:**	umhos/cm		

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		328		1.00	0.500

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	YSI-32
Client ID:	MPL-21-0112-MS	**Prep Method:**	120.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	120.1	**Cal Date:**	
Workgroup #:	WG388884	**Analyst:**	DLP	**Run Date:**	02/06/2012 14:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	32.1202061430-04
Sample Tag:		**Units:**	umhos/cm		

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		326		1.00	0.500

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	YSI-32
Client ID:	MPL-21-0112-MSD	**Prep Method:**	120.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	120.1	**Cal Date:**	
Workgroup #:	WG388884	**Analyst:**	DLP	**Run Date:**	02/06/2012 14:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	32.1202061430-05
Sample Tag:		**Units:**	umhos/cm		

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		332		1.00	0.500

2.2.5.2 QC Summary Data

(Readout)/(dilution) = mg/L

where:

Readout = direct readout from the instrument
dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)

Microbac Laboratories Inc.

Data Checklist

Date: 06-FEB-2012
Analyst: DLP
Analyst: NA
Method: COND
Instrument: YSI-32
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388884

Calibration/Linearity	01-13-12
Second Source Check	
ICV/CCV (std)	
ICB/CCB	
Blank	X
LCS/LCS Dup	X
MS/MSD	
Duplicate	X
Upload Results	X
Client Forms	
QC Violation Sheet	
Case Narratives	
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	
Primary Reviewer	DLP
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
07-FEB-2012

Secondary Reviewer:
10-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-10-2012 14:40:46

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 120.1 AAB#: WG388884

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12							28		02/06/12	10	28	
MPL-21-0112-MS	02	01/27/12							28		02/06/12	10	28	
MPL-21-0112-MSD	03	01/27/12							28		02/06/12	10	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2304413
Report generated 02/10/2012 13:40

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: 32.1202061430-01
Prep Date: 02/06/12 14:30
Analyzed Date: 02/06/12 14:30
Analyst: DLP

Work Group: WG388884
Blank Sample ID: WG388884-01
Instrument ID: YSI-32
Method: 120.1

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388884-02	32.1202061430-02	02/06/12 14:30	
MPL-21-0112-1	L12010767-01	32.1202061430-03	02/06/12 14:30	
MPL-21-0112-MS	L12010767-02	32.1202061430-04	02/06/12 14:30	
MPL-21-0112-MSD	L12010767-03	32.1202061430-05	02/06/12 14:30	
DUP	WG388884-06	32.1202061430-20	02/06/12 14:30	
DUP	WG388884-07	32.1202061430-21	02/06/12 14:30	
LCS2	WG388884-03	32.1202061430-22	02/06/12 14:30	

Report Name: BLANK_SUMMARY
PDF File ID: 2304414
Report generated 02/10/2012 13:40

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 02/06/12 14:30 Sample ID: WG388884-01
Instrument ID: YSI-32 Run Date: 02/06/12 14:30 Prep Method: 120.1
File ID: 32.1202061430-01 Analyst: DLP Method: 120.1
Workgroup (AAB#): WG388884 Matrix: Water Units: umhos/cm
Contract #: Cal ID: YSI-32 -

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Conductivity	0.500	1.00	0.500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name: BLANK
PDF ID: 2304416
10-FEB-2012 13:40

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Analyst: DLP Prep Method: 120.1
Instrument ID: YSI-32 Matrix: Water Method: 120.1
Workgroup (AAB#): WG388884 Units: umhos/cm
QC Key: DOD4 Lot #: STD49788

Sample ID: WG388884-02 LCS File ID: 32.1202061430-02 Run Date: 02/06/2012 14:30
Sample ID: WG388884-03 LCS2 File ID: 32.1202061430-22 Run Date: 02/06/2012 14:30

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Conductivity	1410	1430	102	1410	1440	102	0.0758	90 - 110	10	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2304417
Report generated: 02/10/2012 13:40

2.2.5.3 Raw Data

CONDUCTIVITY

☐EPA 120.1/SM2510B SOP K1201 Revision#: 13

LCS: STD 49788 ☑Cell Constants Determined 1-13-12
Daily Dilution: 10 0.1 mS/10 = 1.42 ☑Cells Clean

SAMPLE	DILUTION	CELL	MULTIPLIER	Direct Instrument READING
BLANK		0.1	µs	4.74
LCS: (1412)		1.0	mS	1.319
01-767-01		1.0	mS	0.302
ms -02		1.0	mS	0.300
msD -03		1.0	mS	0.305
01-798-01		1.0	mS	0.223
02-016-01		1.0	mS	0.741
ms -02		1.0	mS	0.742
msD -03		1.0	mS	0.738
-04		1.0	mS	0.518
05		1.0	mS	0.624
06		1.0	mS	0.621
-07		1.0	mS	0.381
02-44-01		1.0	mS	0.313
-02		1.0	mS	0.614
03		1.0	mS	0.608
02-091-01		1.0	mS	0.302
02-108-01		1.0	mS	0.422
02-146-01		1.0	mS	0.425
DUP: 02-016-01		1.0	mS	0.740
DUP: 02-016-04		1.0	mS	0.522
LCS: 1412		1.0	mS	1.320

Analyst: [signature] Date/Time: 02-06-12 1430

*LCS/CCV required at end of run
* Duplicate required on 10% of samples

DCN#89850

Microbac Laboratories Inc.

TITRAMETRIC REPORT

Workgroup (AAB#): WG388884

Product: 120.1\

Analyte: Conductivity

Analyst: DLP

Run Date: 02/06/2012 14:30

SAMPLE NUMBER	Cell	Multiplier	Reading	Dil	Analytical	Reported	Units
WG388884-01	.1008	1	4.74	1	0.4778	0.4778	umhos/cm
WG388884-02	1.0874	1000	1.319	1	1434	1434	umhos/cm
L12010767-01	1.0874	1000	.302	1	328.4	328.4	umhos/cm
L12010767-02	1.0874	1000	.3	1	326.2	326.2	umhos/cm
L12010767-03	1.0874	1000	.305	1	331.7	331.7	umhos/cm
L12010798-01	1.0874	1000	.223	1	242.5	242.5	umhos/cm
L12020016-01	1.0874	1000	.741	1	805.8	805.8	umhos/cm
WG388884-04	1.0874	1000	.741	1	805.8	805.8	umhos/cm
L12020016-02	1.0874	1000	.742	1	806.9	806.9	umhos/cm
L12020016-03	1.0874	1000	.738	1	802.5	802.5	umhos/cm
L12020016-04	1.0874	1000	.518	1	563.3	563.3	umhos/cm
WG388884-05	1.0874	1000	.518	1	563.3	563.3	umhos/cm
L12020016-05	1.0874	1000	.624	1	678.5	678.5	umhos/cm
L12020016-06	1.0874	1000	.621	1	675.3	675.3	umhos/cm
L12020016-07	1.0874	1000	.381	1	414.3	414.3	umhos/cm
L12020044-01	1.0874	1000	.313	1	340.4	340.4	umhos/cm
L12020044-02	1.0874	1000	.614	1	667.7	667.7	umhos/cm
L12020044-03	1.0874	1000	.608	1	661.1	661.1	umhos/cm
L12020091-01	1.0874	1000	.302	1	328.4	328.4	umhos/cm
L12020108-01	1.0874	1000	.422	1	458.9	458.9	umhos/cm
L12020146-01	1.0874	1000	.425	1	462.1	462.1	umhos/cm
WG388884-06	1.0874	1000	.74	1	804.7	804.7	umhos/cm
WG388884-07	1.0874	1000	.522	1	567.6	567.6	umhos/cm
WG388884-03	1.0874	1000	1.32	1	1435	1435	umhos/cm

COND_REPORT - Modified 03/05/2008

Report generated 02/07/2012 16:57

[redacted]

2.2.6 Ammonia Data

2.2.6.1 Summary Data

Login Number: L12010767
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 350.1/SM4500-NH3 B(NH3)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

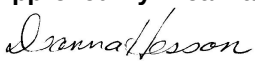
Matrix Spikes: Recoveries out of range were observed for the following analytes: Nitrogen, Ammonia. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 42085
Approved By: Deanna Hesson



Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-1	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	01/31/2012 11:41
Workgroup #:	WG388370	**Analyst:**	DIH	**Run Date:**	01/31/2012 12:01
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131002.028
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7	0.0823	J	0.100	0.0500

J	Estimated value ; the analyte concentration was less than the LOQ.

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MS	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	01/31/2012 11:41
Workgroup #:	WG388370	**Analyst:**	DIH	**Run Date:**	01/31/2012 12:01
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131002.029
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7	0.927		0.100	0.0500

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MSD	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	01/31/2012 11:41
Workgroup #:	WG388370	**Analyst:**	DIH	**Run Date:**	01/31/2012 12:04
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC120131002.032
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7	0.901		0.100	0.0500

2.2.6.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
y = mx + b

Step 2: Calculate the instrument concentration, x

Where:

x = (y - b)/m

Step 3: Solve for analyte concentration in sample, Cx

Cx = (x) (D)

Example Calculation (LCS):

Value of m from plot:	7.809	
Value of b from plot:	0.0004135	
Absorbance of unknown from quantitation report (y):	0.31	
Calculated concentration (x):	0.03964483	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	0.0396	mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

y = Ax^2 + Bx + C

Step 3: Solve for analyte concentration in sample, Cy

Cy = (y) (D)

Example Calculation (LCS):

Value of A from plot:	101.2796	
Value of B from plot:	318.9056	
Value of C from plot:	-2.2712	
Absorbance of unknown from quantitation report (x):	0.1583	
Calculated concentration (y):	50.7495108	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	50.75	mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 31-JAN-2012
Analyst: DIH
Analyst: NA
Method: NH3
Instrument: SC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388370

Calibration/Linearity	1/31/2012
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
02-FEB-2012

Secondary Reviewer:
02-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-02-2012 10:36:58

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 350.1 AAB#: WG388370

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12							28		01/31/12	3.9	28	
MPL-21-0112-MS	02	01/27/12							28		01/31/12	3.9	28	
MPL-21-0112-MSD	03	01/27/12							28		01/31/12	3.9	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2296530
Report generated 02/02/2012 09:18

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: SC120131002.009
Prep Date: 01/31/12 11:43
Analyzed Date: 01/31/12 11:43
Analyst: DIH

Work Group: WG388370
Blank Sample ID: WG388370-01
Instrument ID: SMARTCHEM
Method: 350.1

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388370-02	SC120131002.010	01/31/12 11:45	01
MPL-21-0112-1	L12010767-01	SC120131002.028	01/31/12 12:01	01
MPL-21-0112-MS	L12010767-02	SC120131002.029	01/31/12 12:01	01
MPL-21-0112-MSD	L12010767-03	SC120131002.032	01/31/12 12:04	01
DUP	WG388370-04	SC120131002.059	01/31/12 12:44	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 2296531
Report generated 02/02/2012 09:18

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 01/31/12 11:43 Sample ID: WG388370-01
Instrument ID: SMARTCHEM Run Date: 01/31/12 11:43 Prep Method: 350.1
File ID: SC120131002.009 Analyst: DIH Method: 350.1
Workgroup (AAB#): WG388370 Matrix: Water Units: mg/L
Contract #: Cal ID: SMARTC-31-JAN-12

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Nitrogen, Ammonia	0.0500	0.100	0.0500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name: BLANK
PDF ID: 2296532
02-FEB-2012 09:18

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Run Date: 01/31/2012 Sample ID: WG388370-02
Instrument ID: SMARTCHEM Run Time: 11:45 Prep Method: 350.1
File ID: SC120131002.010 Analyst: DIH Method: 350.1
Workgroup (AAB#): WG388370 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD49779 Cal ID: SMARTC-31-JAN-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Nitrogen, Ammonia	2.00	1.89	94.3	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2296533
Report generated: 02/02/2012 09:18

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: SMARTCHEM- 31-JAN-12 Worknum: WG388370

Instrument ID: SMARTCHEM Contract #: Prep Method: 350.1

Parent ID: L12010767-01 File ID: SC120131002.028 Dil: 1 Method: 350.1

Sample ID: L12010767-02 MS File ID: SC120131002.029 Dil: 1 Matrix: Water

Sample ID: L12010767-03 MSD File ID: SC120131002.032 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Nitrogen, Ammonia	0.0823	1.00	0.927	84.4	1.00	0.901	81.8	2.83	90 - 110	20	*

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2296534
Report generated 02/02/2012 09:18

2.2.6.3 Raw Data

WORKGROUP: WG388370

SMARTCHEM RUN LOG

Daily Check

- [x] Lamp On
- [x] Probe Rinse Full
- [x] DI Water > ½ Full
- [x] Wash Solution > ½ Full
- [ ] NO3 Reagent bottle connected / purged
- [ ] NO3 pH adj to pH 5-9
- [x] WBL Run
- [x] Reagents Full
- [x] Dilution H_2O Full
- [x] Waste Container Check

Syringe filter lot # _____

1) **Workgroup** _____
   Plan # 2012 0131002
2) **Workgroup** _____
   Plan # _____
3) **Workgroup** _____
   Plan # _____

Analyte		1	2	3
		NH3		
		Dilution		
SC Prepared Curve				
Position				
1-1	ICV 1.5			
1-2	BLK			
1-3	LCS 2			
1-4	01-773-01			
1-5	02			
1-6	03			
1-7	04			
1-8	01-698-01			
1-9	03			
1-10	01-718-01			
1-11	02			
1-12	03			
1-13	04			
1-14	01-728-02			
1-15	01-774-01			
1-16	01	1/2		
1-17	01	1/5		
1-18	01	1/10		
1-19	01-767-01			
1-20	MS 02			
1-21	MSD 03			
1-22	01-688-01			
2-1	DUP 774-01			
2-2	↓	1/2		
2-3	↓	1/5		

Position	Analyte	1	2	3
2-4	Dup 01	1/10		
2-5	MS774-01			
2-6	↓	1/2		
2-7		1/5		
2-8		1/10		
2-9	01-774-01			AA
2-10	↓	1/2		↓
2-11		1/5		
2-12		1/10		
2-13				
2-14				
2-15				
2-16				
2-17				
2-18				
2-19				
2-20				
2-21				
2-22				
2-23				
2-24				
2-25				
2-26				
3-1				
3-2				

NOTES:
* Run NO2 std on NO3 runs
* LCS/LCS Dup all parameters
*MS(10% sample): NO3, TKN, NH3

DCN#89772

SMARTCHEM RUN LOG

Position	Analyte	1	2	3
3-3				
3-4				
3-5				
3-6				
3-7				
3-8				
3-9				
3-10				
3-11				
3-12				
3-13				
3-14				
3-15				

Position	Analyte	1	2	3
3-16				
3-17				
3-18				
3-19				
3-20				
3-21				
3-22				
3-23				
3-24				
3-25				
3-26				
3-27				
3-28				

- [ ] Chloride — EPA 325.2/SM 4500-Cl⁻ E
- [ ] Sulfate — EPA 375.4/SM 426C(15th)
- [ ] Alkalinity — EPA 310.2
- [ ] Nitrate-Nitrite — EPA 353.2/SM 4500-NO3 F
- [x] Ammonia — EPA 350.1/SM 4500-NH3 B
- [ ] TKN — EPA 351.2
- [ ] Phos — EPA 365.4

Analyte	NH3		Reagents
SOP & Revision	K3501 R17		RGt16729
Curve Stock (SC made)	std49628		ROt16833
Curve ID (user made)			RGt16835
ICV	std49784		
CCV	std49630		
LCS			
MS	See dist log Dilution		

Comments:

Analyst: [signature] Date: 1/31/12

DCN#89772

AMMONIA DISTILLATION LOG

SOP K3501 Revision # 17

LCS: Std 49mg
10(100)/100=10
DAILY DIL. 10(10)/50 = 2.0

SPIKE: Std 4mg
10(100)/100=10
DAILY DIL. 5(10)/50 = 1.0

WATER (mg/L)

SOIL (mg/Kg)

☑ easy-dist method ☐ macro method

RGT 16972
RGT 16899

SAMPLE	VOLUME DISTILLED (mL)	CHLORINE PRESENT?	pH ADJUSTED 9.5 ± 0.2	COMMENTS
BLANK ✓	50	No	yes	
LCS(2.0) ✓	50	No	yes	
01-773-01 ✓	50	No	yes	Sample received out of Hold
02 ✓	50	No	yes	
03 ✓	50	No	yes	
04 ✓	50	No	yes	
01-698-01 ✓	50	No	yes	
03 ✓	50	No	yes	
01-718-01 ✓	50	No	yes	Beach Island water MW#1
02 ✓	50	No	yes	" MW#2
03 ✓	50	No	yes	Belle W. Baruch Inst.
04 ✓	50	No	yes	" (1-24) Comp (1-3) Comp
01-728-02 ✓	50	No	yes	
01-774-01 ✓	50	No	yes	* PE 5(sample)/1000 = ?
01-767-01 Rep ✓	50	No	yes	
02ms ✓	50	No	yes	
03msd ✓	50	No	yes	
01-688-01 ✓	50	No	yes	
DUP 01-774-01 ✓	50	No	yes	
MS 01-774-01 ✓	50	No	yes	

Analyst: Tammy Morris Date/Time: 1/31/12 @ 815

*MS required on 10% of samples (EPA 350.1)
*MS/MS required on each set of 20 samples (SM4500)

MICROBAC (OVD)

SMARTCHEM REPORT (VER3.0.53)

NH3, TKN, NO3NO2 (MG/L N)

ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNH3 - EPA 350.1/SM4500-NH3 AMMONIA

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.000	0.0535	0.00		11:34:17 AM
DIL-1	RBL	0.000	0.0549	0.00		11:34:35 AM
DIL-1	RBL	0.000	0.0549	0.00		11:36:05 AM
DIL-1	Std-1	0.000	-0.0004	0.00	INV	11:36:23 AM
SR5-1	Std-2	0.030	0.0060	0.00		11:37:53 AM
SR5-2	Std-3	0.094	0.0205	0.00		11:38:11 AM
SR5-3	Std-4	0.600	0.1350	0.00		11:39:41 AM
SR5-4	Std-5	1.050	0.2359	0.00		11:39:59 AM
SR5-5	Std-6	2.100	0.4639	0.00		11:41:29 AM
ST-1	Std-7	3.000	0.6871	0.00		11:41:47 AM
1	ICV 1.5	1.453	0.3280	0.00		11:43:17 AM
2	WG388370-01 BLK	-0.018	-0.0060	0.00	INV,><,LL	11:43:35 AM
3	WG388370-02 LCS	1.886	0.4265	0.00		11:45:05 AM
4	L12010773-01	0.157	0.0337	0.00		11:45:23 AM
5	L12010773-02	0.114	0.0240	0.00		11:46:53 AM
6	L12010773-03	0.059	0.0114	0.00		11:47:11 AM
7	L12010773-04	0.176	0.0381	0.00		11:48:41 AM
8	L12010698-01	0.057	0.0111	0.00		11:48:59 AM
9	L12010698-03	0.081	0.0166	0.00		11:50:29 AM
10	L12010718-01	0.037	0.0064	0.00		11:50:47 AM
ST-2	CCV (1.5 mg/L)	1.438	0.3247	95.86		11:52:17 AM
ST-3	CCB (0 mg/L)	-0.047	-0.0125	0.00	INV,><,LL	11:52:35 AM
11	L12010718-02	0.032	0.0053	0.00		11:54:05 AM
12	L12010718-03	0.023	0.0033	0.00		11:54:23 AM
13	L12010718-04	0.045	0.0084	0.00		11:55:54 AM
14	L12010728-02	3.057	0.6925	0.00	><,LH	11:56:12 AM
15	L12010774-01	10.632	2.4129	0.00	><,LH	11:57:42 AM
16	L12010774-01 (2)	5.187	1.1762	0.00	><,LH	11:57:59 AM
17	L12010774-01 (5)	1.986	0.4492	0.00		11:59:30 AM
18	L12010774-01 (10)	0.929	0.2090	0.00		11:59:48 AM
19	L12010767-01	0.082	0.0168	0.00		12:01:18 PM
20	L12010767-02 MS	0.927	0.2086	0.00		12:01:36 PM

Report Date :01/31/2012 **Run Date :1/31/2012** **Operator : WESTCO** **Plan # :20120131002**

Plan Description : NH3-A-DIH/1/31/2012

MICROBAC (OVD)

SMARTCHEM REPORT (VER3.0.53)

NH3, TKN, NO3NO2 (MG/L N)

ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNH3 - EPA 350.1/SM4500-NH3 AMMONIA

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
ST-2	CCV (1.5 mg/L)	1.409	0.3182	93.95		12:03:06 PM
ST-3	CCB (0 mg/L)	-0.045	-0.0122	0.00	INV,><,LL	12:03:24 PM
21	L12010767-03 MSD	0.901	0.2027	0.00		12:04:54 PM
22	L12010688-01	0.029	0.0047	0.00		12:05:12 PM
23	WG388370-04 DUP	11.817	2.6819	0.00	EPL,><,LH	12:06:42 PM
24	WG388370-04 (2) DUP	5.754	1.3050	0.00	><,LH	12:07:00 PM
25	WG388370-04 (5) DUP	2.199	0.4975	0.00		12:08:30 PM
26	WG388370-04 (10) DUP	1.074	0.2420	0.00		12:08:48 PM
27	WG388370-05 MS	12.026	2.7294	0.00	EPL,><,LH	12:10:18 PM
28	WG388370-05 (2) MS	5.811	1.3178	0.00	><,LH	12:10:36 PM
29	WG388370-05 (5) MS	2.152	0.4869	0.00		12:12:06 PM
30	WG388370-05 (10) MS	1.072	0.2416	0.00		12:12:24 PM
ST-2	CCV (1.5 mg/L)	1.442	0.3256	96.13		12:13:54 PM
ST-3	CCB (0 mg/L)	-0.043	-0.0116	0.00	INV,><,LL	12:14:12 PM
31	774-01 AA	11.801	2.6784	0.00	EPL,><,LH	12:15:42 PM
32	774-01 (2) AA	5.733	1.3001	0.00	><,LH	12:16:00 PM
33	774-01 (5) AA	2.054	0.4646	0.00		12:17:30 PM
34	774-01 (10) AA	1.055	0.2377	0.00		12:17:48 PM
35	ID 35	-0.056	-0.0146	0.00	INV,><,LL	12:19:18 PM
36	ID 36	-0.055	-0.0143	0.00	INV,><,LL	12:19:36 PM
37	ID 37	-0.061	-0.0158	0.00	INV,><,LL	12:21:06 PM
ST-2	CCV (1.5 mg/L)	1.474	0.3328	98.24		12:21:24 PM
ST-3	CCB (0 mg/L)	-0.031	-0.0090	0.00	INV,><,LL	12:22:54 PM
14-[1/2]	L12010728-02	3.310	0.3740	0.00	LH	12:35:05 PM
15-[1/2]	L12010774-01	10.821	1.2270	0.00	><,LH	12:36:53 PM
16-[1/2]	L12010774-01 (2)	5.356	0.6063	0.00	LH	12:38:41 PM
ST-2	CCV (1.5 mg/L)	1.453	0.3281	96.86		12:38:41 PM
ST-3	CCB (0 mg/L)	-0.031	-0.0089	0.00	INV,><,LL	12:40:10 PM
23-[1/2]	WG388370-04 DUP	12.404	1.4067	0.00	><,LH	12:42:17 PM
24-[1/2]	WG388370-04 (2) DUP	5.996	0.6790	0.00	LH	12:44:04 PM
27-[1/2]	WG388370-05 MS	13.188	1.4958	0.00	><,LH	12:45:53 PM
28-[1/2]	WG388370-05 (2) MS	6.096	0.6904	0.00	><,LH	12:47:41 PM

Report Date :01/31/2012 Run Date :1/31/2012 Operator : WESTCO Plan # :20120131002

Plan Description : NH3-A-DIH/1/31/2012

MICROBAC (OVD)

SMARTCHEM REPORT (VER3.0.53)

NH3, TKN, NO3NO2 (MG/L N)

ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNH3 - EPA 350.1/SM4500-NH3 AMMONIA

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
31-[1/2]	774-01 AA	12.167	1.3798	0.00	><,LH	12:49:29 PM
32-[1/2]	774-01 (2) AA	5.877	0.6655	0.00	LH	12:51:17 PM
ST-2	CCV (1.5 mg/L)	1.447	0.3268	96.48		12:51:17 PM
ST-3	CCB (0 mg/L)	-0.032	-0.0092	0.00	INV,><,LL	12:52:47 PM
15-[1/5]	L12010774-01	11.260	0.5096	0.00	LH	1:04:57 PM
23-[1/5]	WG388370-04 DUP	12.596	0.5703	0.00	LH	1:06:45 PM
27-[1/5]	WG388370-05 MS	12.535	0.5675	0.00	LH	1:08:33 PM
ST-2	CCV (1.5 mg/L)	1.469	0.3318	97.95		1:08:33 PM
ST-3	CCB (0 mg/L)	-0.030	-0.0086	0.00	INV,><,LL	1:10:03 PM
28-[1/5]	WG388370-05 (2) MS	6.397	0.2887	0.00	LH	1:12:09 PM
31-[1/5]	774-01 AA	12.674	0.5738	0.00	LH	1:13:57 PM
ST-2	CCV (1.5 mg/L)	1.538	0.3475	102.55		1:13:57 PM
ST-3	CCB (0 mg/L)	-0.034	-0.0095	0.00	INV,><,LL	1:15:27 PM

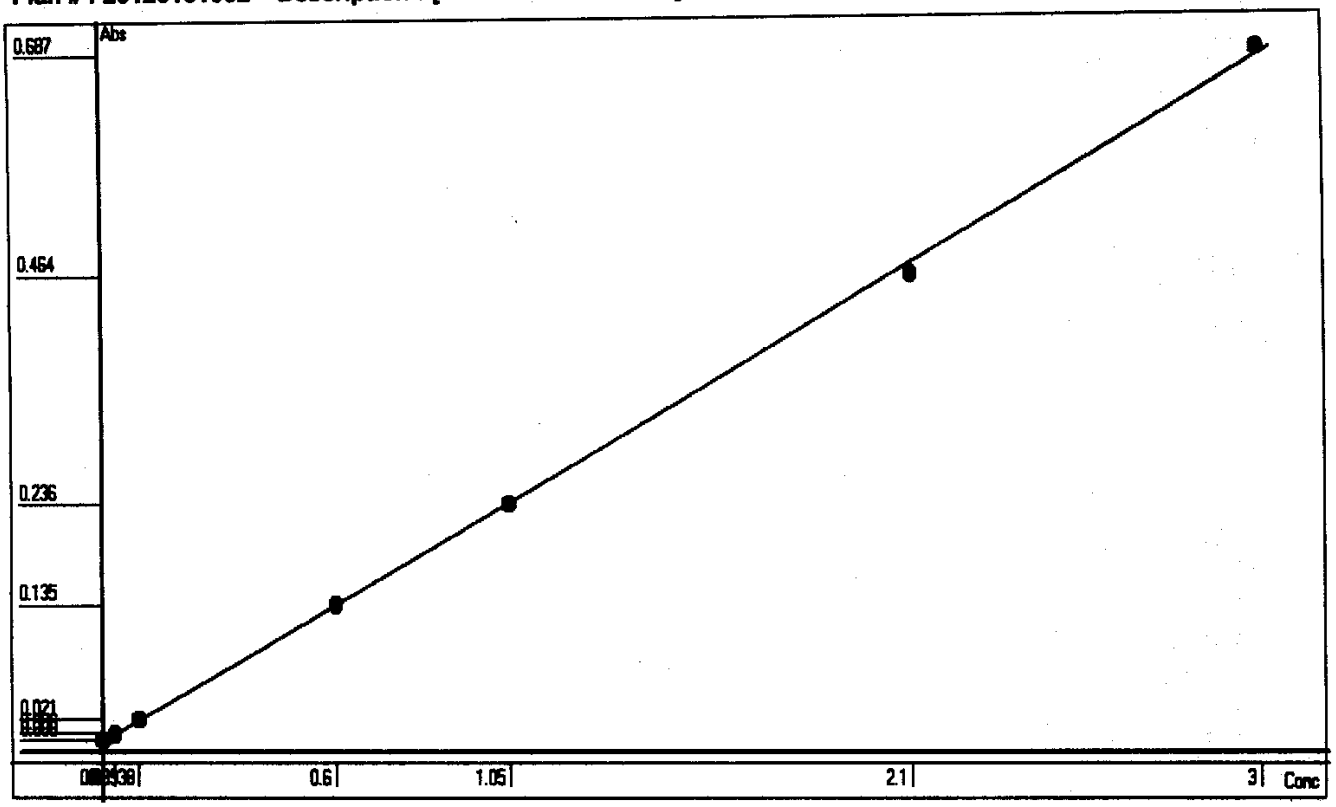
Report Date :01/31/2012 **Run Date :1/31/2012** **Operator : WESTCO** **Plan # :20120131002**

Plan Description : NH3-A-DIH/1/31/2012

Calibrant Report - WNH3 -

Calib Lot #:010104 Exp Date:6/17/2020 User:Westco Scientific

Plan # : 20120131002 Description : [NH3-A-DIH/1/31/2012]



Point	OD	Conc	Recalc Conc	% Error
1	-0.0004	0	0.0065	0.65
2	0.0060	0.03	0.0347	15.67
3	0.0205	0.0938	0.0986	5.12
4	0.1350	0.6	0.6027	0.45
5	0.2359	1.05	1.0469	-0.30
6	0.4639	2.1	2.0508	-2.34
7	0.6871	3	3.0335	1.12

Conc= +4.4029*Abso +0.0083 R^2=0.9996

RBL
0.0549
0

Report Date 1/31/2012 Run Date 1/31/2012

2.2.7 Nitrate Data

2.2.7.1 Summary Data

Login Number: L12010767
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 353.2/SM4500-NO3 F (Nitrate)

HOLDING TIMES

Sample Analysis: Nitrate is reported as the difference of nitrate-nitrite (28 day hold) and nitrite (48 hour hold). Both analysis were analyzed within the appropriate hold time. The nitrate hold time is within compliance.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

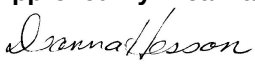
Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 42086
Approved By: Deanna Hesson



Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-1	**Prep Method:**	353.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	353.2	**Cal Date:**	01/30/2012 09:15
Workgroup #:	WG388287	**Analyst:**	DIH	**Run Date:**	01/30/2012 14:40
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC12013112384201
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		1.52		0.0500	0.0250

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MS	**Prep Method:**	353.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	353.2	**Cal Date:**	01/30/2012 09:15
Workgroup #:	WG388287	**Analyst:**	DIH	**Run Date:**	01/30/2012 14:40
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC12013112384501
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		1.90		0.0500	0.0250

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL-21-0112-MSD	**Prep Method:**	353.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	353.2	**Cal Date:**	01/30/2012 09:15
Workgroup #:	WG388287	**Analyst:**	DIH	**Run Date:**	01/30/2012 14:40
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	SC12013112391801
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		2.03		0.0500	0.0250

2.2.7.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
y = mx + b

Step 2: Calculate the instrument concentration, x

Where:

x = (y - b)/m

Step 3: Solve for analyte concentration in sample, Cx

Cx = (x) (D)

Example Calculation (LCS):

Value of m from plot:	7.809	
Value of b from plot:	0.0004135	
Absorbance of unknown from quantitation report (y):	0.31	
Calculated concentration (x):	0.03964483	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	0.0396	mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

y = Ax^2 + Bx + C

Step 3: Solve for analyte concentration in sample, Cy

Cy = (y) (D)

Example Calculation (LCS):

Value of A from plot:	101.2796	
Value of B from plot:	318.9056	
Value of C from plot:	-2.2712	
Absorbance of unknown from quantitation report (x):	0.1583	
Calculated concentration (y):	50.7495108	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	50.75	mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 30-JAN-2012
Analyst: DIH
Analyst: NA
Method: NO3
Instrument: SC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388287

Calibration/Linearity	1/30/12
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
01-FEB-2012

Secondary Reviewer:
01-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-01-2012 14:09:07

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 353.2 AAB#: WG388287

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12							28		01/30/12	3	28	
MPL-21-0112-MS	02	01/27/12							28		01/30/12	3	28	
MPL-21-0112-MSD	03	01/27/12							28		01/30/12	3	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2294918
Report generated 01/31/2012 15:24

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: SC12013112342001
Prep Date: 01/30/12 14:40
Analyzed Date: 01/30/12 14:40
Analyst: DIH

Work Group: WG388287
Blank Sample ID: WG388287-01
Instrument ID: SMARTCHEM
Method: 353.2

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
DUP	WG388287-05	SC12013112344701	01/30/12 14:40	
LCS	WG388287-02	SC12013112342701	01/30/12 14:40	
MPL-21-0112-1	L12010767-01	SC12013112384201	01/30/12 14:40	
MPL-21-0112-MS	L12010767-02	SC12013112384501	01/30/12 14:40	
MPL-21-0112-MSD	L12010767-03	SC12013112391801	01/30/12 14:40	
LCS2	WG388287-03	SC12013112343301	01/30/12 14:40	

Report Name: BLANK_SUMMARY
PDF File ID: 2294919
Report generated 01/31/2012 15:24

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 01/30/12 14:40 Sample ID: WG388287-01
Instrument ID: SMARTCHEM Run Date: 01/30/12 14:40 Prep Method: 353.2
File ID: SC12013112342001 Analyst: DIH Method: 353.2
Workgroup (AAB#): WG388287 Matrix: Water Units: mg/L
Contract #: Cal ID: SMARTC-30-JAN-12

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Nitrate-Nitrite (as N)	0.0250	0.0500	0.0250	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name: BLANK
PDF ID: 2294920
31-JAN-2012 15:24

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Analyst: DIH Prep Method: 353.2
Instrument ID: SMARTCHEM Matrix: Water Method: 353.2
Workgroup (AAB#): WG388287 Units: mg/L
QC Key: DOD4 Lot #: STD49812

Sample ID: WG388287-02 LCS File ID: SC12013112342701 Run Date: 01/30/2012 14:40
Sample ID: WG388287-03 LCS2 File ID: SC12013112343301 Run Date: 01/30/2012 14:40

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Nitrate-Nitrite (as N)	2.00	1.88	94.0	2.00	1.97	98.7	4.88	90 - 110	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2294921
Report generated: 01/31/2012 15:24

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: SMARTCHEM- 30-JAN-12 Worknum: WG388287

Instrument ID: SMARTCHEM Contract #: Prep Method: 353.2

Parent ID: L12010767-01 File ID: SC12013112384201 Dil: 1 Method: 353.2

Sample ID: L12010767-02 MS File ID: SC12013112384501 Dil: 1 Matrix: Water

Sample ID: L12010767-03 MSD File ID: SC12013112391801 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Nitrate-Nitrite (as N)	1.52	0.500	1.90	76.8	0.500	2.03	102	6.31	90 - 110	15	*

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2294922
Report generated 01/31/2012 15:24

2.2.7.3 Raw Data

wg 388287

SMARTCHEM RUN LOG

Daily Check

- [x] Lamp On
- [x] Probe Rinse Full
- [x] DI Water > ½ Full
- [x] Wash Solution > ½ Full
- [x] NO3 Reagent bottle connected / purged
- [x] NO3 pH adj to pH 5-9
- [x] WBL Run
- [x] Reagents Full
- [x] Dilution H_2O Full
- [x] Waste Container Check

Syringe filter lot # 131442

1) **Workgroup** _____
Plan # 20120130005
2) **Workgroup** _____
Plan # _____
3) **Workgroup** _____
Plan # _____

	Analyte	1	2	3
		NO3		
		Dilution		
SC Prepared Curve				
Position				
1-1	ICV 1.5			
1-2	NO2 1			
1-3	BLK			
1-4	LCS 2			
1-5	LCSDUP			
1-6	01-604-01			
1-7	DUP01			
1-8	MS02	04		
1-9	msd05			
1-10	01-606-01	1/4		
1-11	01-698-01	1/5		
1-12	01-7340	1/20		
1-13	01-613-01	1/5		
1-14	01-652-01	1/4		
1-15	02	1/4		
1-16	01-686-01	1/4	1/5	
1-17	02	1/4		
1-18	03	1/5		
1-19				
1-20	01-651-01	1/4		
1-21	MS02	1/4		
1-22	msd03	1/4		
2-1	01-767-01			
2-2	MS02			
2-3	msd03			

Position	Analyte	1	2	3
2-4				
2-5				
2-6				
2-7				
2-8				
2-9				
2-10				
2-11				
2-12				
2-13				
2-14				
2-15				
2-16				
2-17				
2-18				
2-19				
2-20				
2-21				
2-22				
2-23				
2-24				
2-25				
2-26				
3-1				
3-2				

NOTES:
* Run NO2 std on NO3 runs
* LCS/LCS Dup all parameters
*MS(10% sample): NO3, TKN, NH3

DCN#89757

SMARTCHEM RUN LOG

Analyte		1	2	3
Position				
3-3				
3-4				
3-5				
3-6				
3-7				
3-8				
3-9				
3-10				
3-11				
3-12				
3-13				
3-14				
3-15				

Analyte		1	2	3
Position				
3-16				
3-17				
3-18				
3-19				
3-20				
3-21				
3-22				
3-23				
3-24				
3-25				
3-26				
3-27				
3-28				

- [ ] Chloride — EPA 325.2/SM 4500-Cl⁻ E
- [ ] Sulfate — EPA 375.4/SM 426C(15th)
- [ ] Alkalinity — EPA 310.2
- [x] Nitrate-Nitrite — EPA 353.2/SM 4500-NO3 F
- [ ] Ammonia — EPA 350.1/SM 4500-NH3 B
- [ ] TKN — EPA 351.2
- [ ] Phos — EPA 365.4

Analyte	NO3		Reagents
SOP & Revision	K3532 R18		Rgt 16628
Curve Stock (SC made)	std 49809		Rgt 16820
Curve ID (user made) NO2	std 49488		
ICV	std 49811		
CCV	std 49810		
LCS	std 49812		
MS	std 48249 Dilution 0.1/5(25)=0.5		

Comments: _____

Analyst: Dann Dann Date: 1/30/12

DCN#89757

MICROBAC (OVD)

SMARTCHEM REPORT (VER3.0.53)

NH3, TKN, NO3NO2 (MG/L N)

ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNO3 - EPA 353.2 Nitrate-Nitrite

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.000	0.0209	0.00		2:25:59 PM
DIL-1	RBL	0.000	0.0180	0.00		2:27:11 PM
DIL-1	RBL	0.000	0.0164	0.00		2:28:23 PM
DIL-1	RBL	0.000	0.0157	0.00		2:29:35 PM
DIL-1	Std-1	0.000	-0.0021	0.00	INV	2:30:47 PM
SR5-1	Std-2	0.040	0.0111	0.00		2:31:59 PM
SR5-2	Std-3	0.100	0.0341	0.00		2:33:11 PM
SR5-3	Std-4	0.500	0.1812	0.00		2:34:23 PM
SR5-4	Std-5	1.000	0.3718	0.00		2:35:35 PM
ST-1	Std-6	2.000	0.7419	0.00		2:36:47 PM
1	ICV 1.5	1.359	0.5036	0.00		2:37:59 PM
2	NO2	0.916	0.3382	0.00		2:39:11 PM
3	BLK wg388287-01	0.002	-0.0026	0.00	INV,><	2:40:23 PM
4	LCS -02	1.879	0.6972	0.00		2:41:35 PM
5	LCSDUP 03	1.973	0.7325	0.00		2:42:47 PM
6	L12010604-01	0.705	0.2597	0.00		2:43:59 PM
7	DUP 604-01	0.922	0.3405	0.00	NO2	2:45:11 PM
8	L12010604-04 MS	1.166	0.4317	0.00	0.004	2:46:23 PM
9	L12010604-05 MSD	1.290	0.4777	0.00		2:47:35 PM
10	L12010606-01 (4)	1.588	0.5887	0.00	0.004	2:48:47 PM
ST-2	CCV (1 mg/L)	0.946	0.3495	94.60		2:49:59 PM
ST-3	CCB (0 mg/L)	0.001	-0.0027	0.00	INV,><	2:51:11 PM
11	L12010698-01 (5)	1.683	0.6243	0.00	0.007	2:52:23 PM
12	L12010734-02 (20)	1.058	0.3914	0.00	0.110	2:53:35 PM
13	L12010613-01 (5)	1.631	0.6048	0.00		2:54:47 PM
14	L12010652-01 (4)	1.028	0.3802	0.00		2:55:59 PM
15	L12010652-02 (4)	1.324	0.4904	0.00		2:57:11 PM
16	L12010686-01 (5)	1.501	0.5564	0.00		2:58:23 PM
17	L12010686-02 (4)	1.547	0.5736	0.00		2:59:36 PM
18	L12010686-03 (5)	1.432	0.5307	0.00		3:00:48 PM
19	ID 19	0.875 X	0.3232	0.00		3:02:00 PM
20	L12010651-01 (4)	1.107	0.4095	0.00		3:03:12 PM

Report Date :01/30/2012 **Run Date :1/30/2012** **Operator : WESTCO** **Plan # :20120130005**

Plan Description : NO3-C-DIH/1/30/2012

MICROBAC (OVD)

SMARTCHEM REPORT (VER3.0.53)

NH3, TKN, NO3NO2 (MG/L N)

ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNO3 - EPA 353.2 Nitrate-Nitrite

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
ST-2	CCV (1 mg/L)	0.924	0.3413	92.40		3:04:24 PM
ST-3	CCB (0 mg/L)	0.001	-0.0030	0.00	INV,><	3:05:36 PM
21	L12010651-02 MS (4)	1.287	0.4767	0.00		3:06:48 PM
22	L12010651-03 MSD (4)	1.230	0.4554	0.00		3:08:00 PM
23	ID 23 01-767-01	1.518	0.5627	0.00		3:09:12 PM
24	ID 24 -02 MS	1.902	0.7061	0.00		3:10:24 PM
25	ID 25 -03 MSd	2.026 OK	0.7520	0.00	><,LH	3:11:36 PM
ST-2	CCV (1 mg/L)	0.958	0.3540	95.80		3:12:48 PM
ST-3	CCB (0 mg/L)	0.002	-0.0024	0.00	INV,><	3:14:00 PM
25-[1/4]	ID 25	2.077 X	0.1904	0.00	LH	3:23:10 PM
ST-2	CCV (1 mg/L)	0.898 X	0.3317	89.82		3:24:04 PM
ST-3	CCB (0 mg/L)	0.008 X	-0.0001	0.00	INV	3:25:16 PM

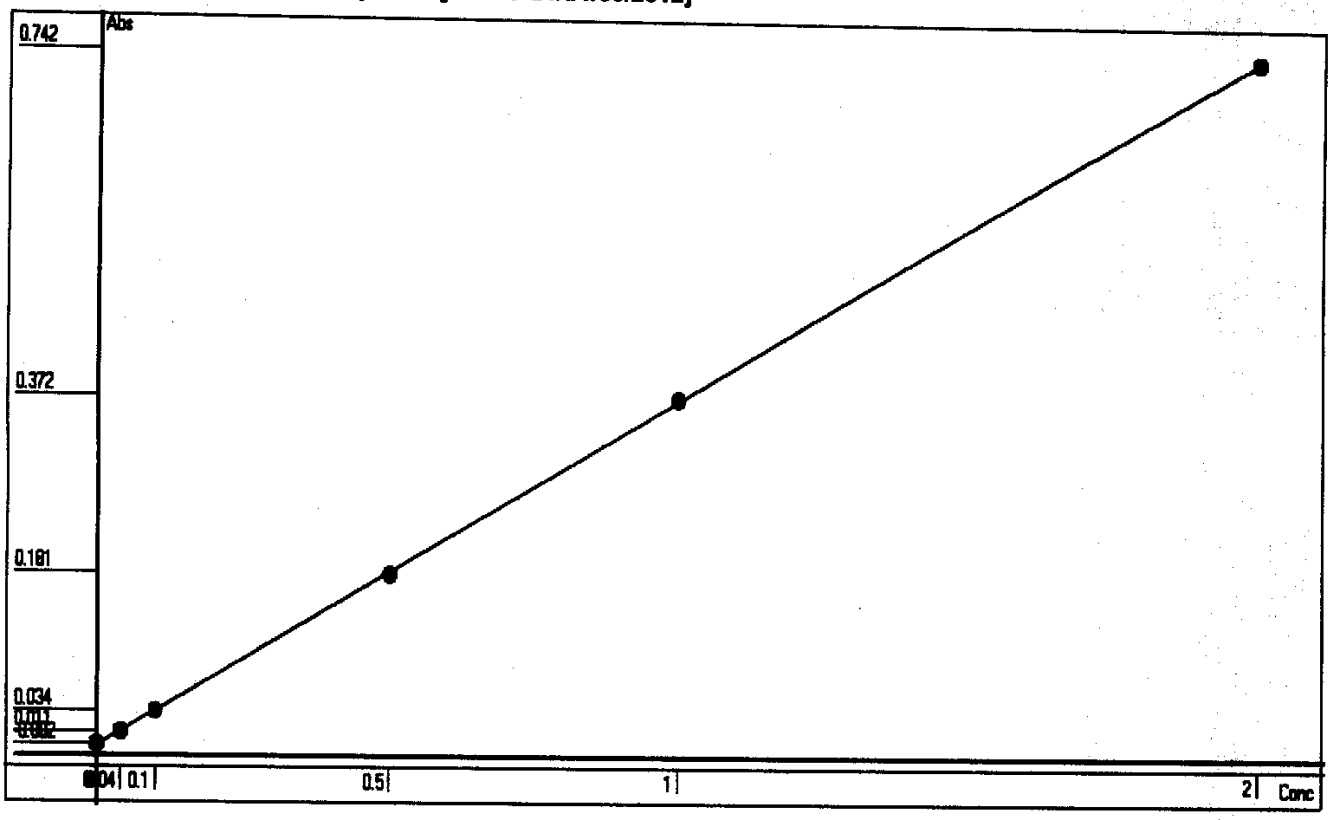
Report Date :01/30/2012 **Run Date :1/30/2012** **Operator : WESTCO** **Plan # :20120130005**

Plan Description : NO3-C-DIH/1/30/2012

Calibrant Report - WNO3 -

Calib Lot #:010104 Exp Date:6/17/2020 User:MICROBAC

Plan # : 20120130005 Description : [NO3-C-DIH/1/30/2012]



Point	OD	Conc	Recalc Conc	% Error
1	-0.0021	0	0.0029	0.29
2	0.0111	0.04	0.0383	-4.25
3	0.0341	0.1	0.1000	0.00
4	0.1812	0.5	0.4945	-1.10
5	0.3718	1	1.0057	0.57
6	0.7419	2	1.9984	-0.08

Conc= +2.6822*Abso +0.0085 R^2=1.0000

RBL
0.0172
0

Report Date 1/30/2012 Run Date 1/30/2012

2.2.8 Orthophosphate Data

2.2.8.1 Summary Data

Login Number: L12010767
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 365.2/SM4500-P E (Orthophosphate)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

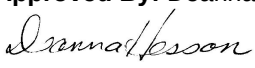
Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 42087
Approved By: Deanna Hesson



Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-1	**Prep Method:**	SM4500-P-E-20th	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-20th	**Cal Date:**	12/21/2011 14:35
Workgroup #:	WG388301	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201290930-05
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2		U	0.0500	0.0250

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MS	**Prep Method:**	SM4500-P-E-20th	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-20th	**Cal Date:**	12/21/2011 14:35
Workgroup #:	WG388301	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201290930-06
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2	0.366		0.0500	0.0250

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL-21-0112-MSD	**Prep Method:**	SM4500-P-E-20th	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-20th	**Cal Date:**	12/21/2011 14:35
Workgroup #:	WG388301	**Analyst:**	DIH	**Run Date:**	01/29/2012 09:30
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	1V.1201290930-07
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2	0.378		0.0500	0.0250

2.2.8.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
y = mx + b

Step 2: Calculate the instrument concentration, x

Where:

x = (y - b)/m

Step 3: Solve for analyte concentration in sample, Cx

Cx = (x) (D)

Example Calculation (LCS):

Value of m from plot:	7.809	
Value of b from plot:	0.0004135	
Absorbance of unknown from quantitation report (y):	0.31	
Calculated concentration (x):	0.03964483	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	0.0396	mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

y = Ax^2 + Bx + C

Step 3: Solve for analyte concentration in sample, Cy

Cy = (y) (D)

Example Calculation (LCS):

Value of A from plot:	101.2796	
Value of B from plot:	318.9056	
Value of C from plot:	-2.2712	
Absorbance of unknown from quantitation report (x):	0.1583	
Calculated concentration (y):	50.7495108	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	50.75	mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 29-JAN-2012
Analyst: DIH
Analyst: NA
Method: PO4
Instrument: UV-120-1V
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388301

Calibration/Linearity	12/21/11
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
01-FEB-2012

Secondary Reviewer:
01-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-01-2012 14:10:06

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM4500-P-E-20th AAB#: WG388301

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12							2		01/29/12	1.8	2	
MPL-21-0112-MS	02	01/27/12							2		01/29/12	1.8	2	
MPL-21-0112-MSD	03	01/27/12							2		01/29/12	1.8	2	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2293980
Report generated 01/31/2012 09:41

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: 1V.1201290930-02
Prep Date: 01/29/12 09:30
Analyzed Date: 01/29/12 09:30
Analyst: DIH

Work Group: WG388301
Blank Sample ID: WG388301-01
Instrument ID: UV-120-1V
Method: SM4500-P-E-20th

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388301-02	1V.1201290930-03	01/29/12 09:30	
LCS2	WG388301-03	1V.1201290930-04	01/29/12 09:30	
MPL-21-0112-1	L12010767-01	1V.1201290930-05	01/29/12 09:30	
MPL-21-0112-MS	L12010767-02	1V.1201290930-06	01/29/12 09:30	
MPL-21-0112-MSD	L12010767-03	1V.1201290930-07	01/29/12 09:30	
DUP	WG388301-05	1V.1201290930-09	01/29/12 09:30	

Report Name: BLANK_SUMMARY
PDF File ID: 2293981
Report generated 01/31/2012 09:41

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 01/29/12 09:30 Sample ID: WG388301-01
Instrument ID: UV-120-1V Run Date: 01/29/12 09:30 Prep Method: SM4500-P-E-20th
File ID: 1V.1201290930-02 Analyst: DIH Method: SM4500-P-E-20th
Workgroup (AAB#): WG388301 Matrix: Water Units: mg/L
Contract #: Cal ID: UV-120 - 27-JAN-12

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Orthophosphate	0.0250	0.0500	0.0250	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name: BLANK
PDF ID: 2293982
31-JAN-2012 09:41

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Analyst: DIH Prep Method: SM4500-P-E-20th
Instrument ID: UV-120-1V Matrix: Water Method: SM4500-P-E-20th
Workgroup (AAB#): WG388301 Units: mg/L
QC Key: DOD4 Lot #: STD49786

Sample ID: WG388301-02 LCS File ID: 1V.1201290930-03 Run Date: 01/29/2012 09:30
Sample ID: WG388301-03 LCS2 File ID: 1V.1201290930-04 Run Date: 01/29/2012 09:30

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Orthophosphate	1.00	0.966	96.6	1.00	0.970	97.0	0.477	90 - 110	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2293983
Report generated: 01/31/2012 09:41

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: UV-120-1V- 21-DEC-11 Worknum: WG388301

Instrument ID: UV-120-1V Contract #: Prep Method: SM4500-P-E-20th

Parent ID: L12010767-01 File ID: 1V.1201290930-05 Dil: 1 Method: SM4500-P-E-20th

Sample ID: L12010767-02 MS File ID: 1V.1201290930-06 Dil: 1 Matrix: Water

Sample ID: L12010767-03 MSD File ID: 1V.1201290930-07 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Orthophosphate	U	0.400	0.366	91.4	0.400	0.378	94.5	3.31	90 - 110	20	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2293984
Report generated 01/31/2012 09:41

2.2.8.3 Raw Data

W G385 747

Curves

Parameter: PO4

Spectrophotometer: UV-120-1V

Calibration (Curve) standard stock: Std 47333

Concentration: 1000 mg/L

12/2/11 Recipe for preparation of curve standards found in:

SOP: ~~CH3653~~ Revision: 13 Page: 9

Second Source Stock: Std 49228 (concentration: 10 mg/L)

Daily Preparation: 5(10)/50

concentration = 1.0 mg/L

Calibration Standards (mg/L)	Volume (mL)	Cell Size (cm)	Wavelength (nm)	Absorbance
1.0	50	1cm	880	0.643
0.7	50	1cm	880	0.475
0.5	50	1cm	880	0.321
0.2	50	1cm	880	0.133
0.1	50	1cm	880	0.068
0.05	50	1cm	880	0.033
0.00	50	1cm	880	0.001
Second Source (1.0)	50	1cm	880	0.647

Analyst: Holly Ferd Date/Time: 12/21/11 1435

DCN#89407

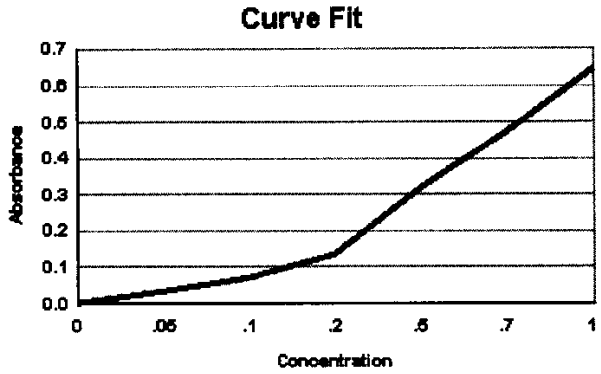
Microbac Laboratories Inc.
INITIAL CALIBRATION

Workgroup: WG385747
Analytical Method: 300
Instrument ID: UV-120-1V

Analyst: HJR
Initial Calibration Date: 12/21/2011

Analyte: ORTHOPHOSPHATE
Number of Points: 7
Slope: 0.649901
Y-Intercept: 0.00239330
Coef. Of Correlation (R^2): 0.998781
Coef. Of Correlation (R): 0.999390

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00100	0.00	0.00	0.00239330
0.0500	0.0330	0.00250	0.00165	0.0348883
0.100	0.0680	0.0100	0.00680	0.0673834
0.200	0.133	0.0400	0.0266	0.132373
0.500	0.321	0.250	0.161	0.327344
0.700	0.475	0.490	0.333	0.457324
1.00	0.643	1.00	0.643	0.652294



WG_ICAL_CAL_WET - Modified 03/06/2008
Report generated 12/27/2011 10:18

[redacted]

Microbac Laboratories Inc.
ALTERNATE SOURCE REPORT

Workgroup #: WG385747
File ID: 1V.1112211435-08
CCV ID: WG385747-08
Units: mg/L
Analyte: ORTHOPHOSPHATE

Instrument ID: UV-120-1V
Run Date: 12/21/2011
Run Time: 14:35
Analyst: HJR
Cal ID: UV-120 - 21-DEC-11 14:35:07

Analyte	Expected	Found	RF	%D	Q
Orthophosphate	1	0.992	0.647	0.8	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_SSCV - Modified 03/06/2008
Report generated 12/27/2011 10:19

[redacted]

wg388301

ORTHOPHOSPHATE

EPA 365.2/SM4500-P E
SOP K3653 Rev 13

Color Reagent Chemicals
RGt 16866
RGt 16865
RGt 16566
COA 15323

CCV: std49785
Daily Dilution: 5/50 (5)
Daily Dilution: =0.5
Spectrophotometer: UV-120-1V

LCS: std49786
Daily Dilution: 5/50 (10)
Daily Dilution: =1
Curve ID: 12/21/11

Spike: std49786
Daily Dilution: 2/50 (10)
Daily Dilution: =0.4

SAMPLE	VOLUME	pH 7 ± 0.2	DILUTION	ABSORBANCE @ 880 nm
CCV: 0.5 mg/L	50	✓		0.318
BLANK	50	✓		0.002
LCS: 1.0 ppm	50	✓		0.630
LCSDUP: 1.0 ppm	50	✓		0.633
mp21 01-76701	50	✓ Adj		0.006
	50			
	50			
	50			
	50			
	50			
	50			
	50			
	50			
	50			
	50			
	50			
	50			
	50			
	50			
	50			
	50			
DUP: 76701	50	✓		0.005
MS: (0.4) -02	50	✓		0.240
MSD: (0.4) -03	50	✓		0.248
CCV: (1.0)	50	✓		0.323

ANALYST: [signature] DATE / TIME: 1/29/12/0930

DCN#89750

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG388301
Analyte: ORTHOPHOSPHATE

Analyst: DIH
Date: 01/29/2012

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG388301-01	50	50	0.00200	0.6499	0.002393	-0.00060517	-0.00060517	1	mg/L
WG388301-02	50	50	0.630	0.6499	0.002393	0.96570	0.96570	1	mg/L
WG388301-03	50	50	0.633	0.6499	0.002393	0.97031	0.97031	1	mg/L
L12010767-01	50	50	0.00600	0.6499	0.002393	0.0055496	ND	1	mg/L
WG388301-04	50	50	0.00600	0.6499	0.002393	0.0055496	0.0055496	1	mg/L
L12010767-02	50	50	0.240	0.6499	0.002393	0.36560	0.36560	1	mg/L
WG388301-06	50	50	0.240	0.6499	0.002393	0.36560	0.36560	1	mg/L
L12010767-03	50	50	0.248	0.6499	0.002393	0.37791	0.37791	1	mg/L
WG388301-07	50	50	0.248	0.6499	0.002393	0.37791	0.37791	1	mg/L
WG388301-05	50	50	0.00500	0.6499	0.002393	0.0040109	0.0040109	1	mg/L

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated 01/31/2012 09:41

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388355
File ID: 1V.1201290930-01
CCV ID: WG388355-01
Units: mg/L
Analyte: ORTHOPHOSPHATE

Instrument ID: UV-120-1V
Run Date: 01/29/2012
Run Time: 09:30
Analyst: DIH
Cal ID: UV-120 - 27-JAN-12

Analyte	Expected	Found	RF	%D	Q
Orthophosphate	.5	0.486	0.636	2.8	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 01/31/2012 09:40

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388355
File ID: 1V.1201290930-08
CCV ID: WG388355-02
Units: mg/L
Analyte: ORTHOPHOSPHATE

Instrument ID: UV-120-1V
Run Date: 01/29/2012
Run Time: 09:30
Analyst: DIH
Cal ID: UV-120 - 27-JAN-12

Analyte	Expected	Found	RF	%D	Q
Orthophosphate	.5	0.493	0.646	1.4	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 01/31/2012 09:40

[redacted]

2.2.9 Total Dissolved Solids Data

2.2.9.1 Summary Data

Login Number: L12010767
Department: Conventionals
Analyst: Holly Reed

METHOD

Analysis EPA 160.1/SM2540 C(Total Dissolved Solids)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 42090
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-1	**Prep Method:**	160.1/SM2540C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.1	**Cal Date:**	
Workgroup #:	WG388361	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:48
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311048-12
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		208		20.0	10.0

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-MS	**Prep Method:**	160.1/SM2540C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.1	**Cal Date:**	
Workgroup #:	WG388361	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:48
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311048-13
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		718		20.0	10.0

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-MSD	**Prep Method:**	160.1/SM2540C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.1	**Cal Date:**	
Workgroup #:	WG388361	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:48
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311048-14
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		720		20.0	10.0

2.2.9.2 QC Summary Data

Example Total Dissolved Solids Calculations

$$[(WT2 - WT1) * 1000000]/volume = mg/L$$

where:

WT1 = weight (grams) of empty container.
WT2 = weight (grams) of dried sample and container.
1000000 = factor to get to mg/L.
volume = mL of sample used.

Microbac Laboratories Inc.

Data Checklist

Date: 31-JAN-2012
Analyst: HJR
Analyst: NA
Method: TDS
Instrument: OVEN
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388361

Calibration/Linearity	1/31/12
Second Source Check	
ICV/CCV (std)	
ICB/CCB	
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	HJR
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
02-FEB-2012

Secondary Reviewer:
02-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-02-2012 10:37:53

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 160.1 AAB#: WG388361

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12							7		01/31/12	3.8	7	
MPL-21-0112-MS	02	01/27/12							7		01/31/12	3.8	7	
MPL-21-0112-MSD	03	01/27/12							7		01/31/12	3.8	7	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2296762
Report generated 02/02/2012 10:01

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: EN.1201311048-01
Prep Date: 01/31/12 10:48
Analyzed Date: 01/31/12 10:48
Analyst: HJR

Work Group: WG388361
Blank Sample ID: WG388361-01
Instrument ID: OVEN
Method: 160.1

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388361-02	EN.1201311048-02	01/31/12 10:48	
LCS2	WG388361-03	EN.1201311048-03	01/31/12 10:48	
MPL-21-0112-1	L12010767-01	EN.1201311048-12	01/31/12 10:48	
MPL-21-0112-MS	L12010767-02	EN.1201311048-13	01/31/12 10:48	
MPL-21-0112-MSD	L12010767-03	EN.1201311048-14	01/31/12 10:48	
DUP	WG388361-05	EN.1201311048-15	01/31/12 10:48	

Report Name: BLANK_SUMMARY
PDF File ID: 2296763
Report generated 02/02/2012 10:01

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 01/31/12 10:48 Sample ID: WG388361-01
Instrument ID: OVEN Run Date: 01/31/12 10:48 Prep Method: 160.1/SM2540C
File ID: EN.1201311048-01 Analyst: HJR Method: 160.1
Workgroup (AAB#): WG388361 Matrix: Water Units: mg/L
Contract #: Cal ID: OVEN-

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Total Dissolved Solids	5.00	10.0	5.00	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 2296764
02-FEB-2012 10:01

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Analyst: HJR Prep Method: 160.1/SM2540C
Instrument ID: OVEN Matrix: Water Method: 160.1
Workgroup (AAB#): WG388361 Units: mg/L
QC Key: DOD4 Lot #: STD48299

Sample ID: WG388361-02 LCS File ID: EN.1201311048-02 Run Date: 01/31/2012 10:48
Sample ID: WG388361-03 LCS2 File ID: EN.1201311048-03 Run Date: 01/31/2012 10:48

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Dissolved Solids	500	498	99.6	500	500	100	0.401	80 - 120	10	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2296765
Report generated: 02/02/2012 10:01

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: OVEN- Worknum: WG388361

Instrument ID: OVEN Contract #: Prep Method: 160.1/SM2540

Parent ID: L12010767-01 File ID: EN.1201311048-12 Dil: 1 Method: C

Sample ID: L12010767-02 MS File ID: EN.1201311048-13 Dil: 1 Matrix: 160.1

Sample ID: L12010767-03 MSD File ID: EN.1201311048-14 Dil: 1 Units: Water

mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Total Dissolved Solids	208	500	718	102	500	720	102	0.278	80 - 120	10	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 2296766

Report generated 02/02/2012 10:01

2.2.9.3 Raw Data

TOTAL DISSOLVED SOLIDS

SOP K1601 Revision #: 12
☑ EPA 160.1/ SM2540C
LCS: Std 48299
Daily Dilution: _____

Oven: ☑ TDS1 ☐ MISC1
Balance: AND GR-202 / Other _____
Matrix Spike: _____
Daily Dilution: _____

SAMPLE	#	VOLUME (mL)	INITIAL WEIGHT WT1 (g)	DRY WEIGHT WT2A (g)	DRY WEIGHT WT2B (g)	DRY WEIGHT WT2C (g)
BLANK		100				
LCS: _____mg/L		50				
LCSDUP: _____mg/L		50				
61-0733-01		50				
-02		50				
-03		50				
-04		50				
-05		50				
-06		50				
-07		50				
-08		50				
61-0767-01MS		50				
-02MS		50				
-03MSD		50				
DUP: 61-0767-01		50				
DUP: _____						

ANALYST: [signature] DATE/TIME: (on) 1/31/12
DATE/TIME: (off) _____
DATE/TIME: (off) _____
DATE/TIME: (off) _____

* Duplicate required on 10% of samples

DCN#89768

Microbac Laboratories Inc.
GRAVIMETRIC REPORT

Workgroup (AAB#): WG388361
Analyst: HJR
Analyte: TOTAL DISSOLVED SOLIDS
Balance: BAL004
Instrument: OVEN

Method: 160.1/SM2540C
SOP: K1601 Revison 12
Spike Solution: STD48299
Daily Dilution: 5(5000)/50=500

SAMPLE NUMBER	#	INITIAL VOL	INITIAL WT	DRY WT A	DRY WT B	DRY WT C	Anal. Conc	Rep. Conc.	Units
WG388361-01	W2	100	77.949	77.9489	77.949		0	0	mg/L
WG388361-02	23	50	49.8536	49.8785	49.8785		498.0	498.0	mg/L
WG388361-03	C9	50	60.8378	60.8625	60.8628		500.0	500.0	mg/L
L12010733-01	13	50	56.4926	56.5068	56.5068		284.0	284.0	mg/L
L12010733-02	P2	50	80.659	80.7108	80.7106		1032	1032	mg/L
L12010733-03	K8	50	73.444	73.512	73.5119		1358	1358	mg/L
L12010733-04	P7	50	75.5879	75.596	75.5964		170.0	170.0	mg/L
L12010733-05	K5	50	79.5165	79.5862	79.5867		1404	1404	mg/L
L12010733-06	P1	50	78.8426	78.8446	78.8446		40.00	40.00	mg/L
L12010733-07	B7	50	64.5853	64.5936	64.5938		170.0	170.0	mg/L
L12010733-08	K6	50	81.3166	81.3271	81.3274		216.0	216.0	mg/L
L12010767-01	W5	50	76.7726	76.7829	76.783		208.0	208.0	mg/L
WG388361-04	W5	50	76.7726	76.7829	76.783		208.0	208.0	mg/L
L12010767-02	W9	50	75.894	75.9299	75.9299		718.0	718.0	mg/L
WG388361-06	W9	50	75.894	75.9299	75.9299		718.0	718.0	mg/L
L12010767-03	D	50	69.971	70.007	70.007		720.0	720.0	mg/L
WG388361-07	D	50	69.971	70.007	70.007		720.0	720.0	mg/L
WG388361-05	W7	50	82.0952	82.1054	82.1055		206.0	206.0	mg/L

L12010767-02	ms=5(5000)/50=500
L12010767-03	msd=5(5000)/50=500
WG388361-06	ms=5(5000)/50=500
WG388361-07	msd=5(5000)/50=500

Analyst: HJR

*Duplicate required on 10% of samples

Date/Time (on) : 01/31/2012 10:48
Date/Time (off): 02/01/2012 15:50
Date/Time (off): 02/02/2012 08:59
Date/Time (off):

CONT_GRAV_REPORT - Modified 02/18/2011
PDF ID: 2294396
Report generated: 02/02/2012 09:02

2.2.10 Total Organic Carbon Data

2.2.10.1 Summary Data

Login Number: L12010767
Department: Conventionals
Analyst: Jeremy Kinney

METHOD

Analysis Water: EPA 415.1/SM5310C/SW846 9060 (Total Organic Carbon)
Soil: Lloyd-Khan Methodology

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 42088
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	MPL-21-0112-1	**Prep Method:**	415.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	415.1	**Cal Date:**	12/06/2011 09:40
Workgroup #:	WG388455	**Analyst:**	JBK	**Run Date:**	02/01/2012 11:33
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	TC02012012.008
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon		1.53		1.00	0.500

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	MPL-21-0112-MS	**Prep Method:**	415.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	415.1	**Cal Date:**	12/06/2011 09:40
Workgroup #:	WG388455	**Analyst:**	JBK	**Run Date:**	02/01/2012 11:58
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	TC02012012.010
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon		11.4		1.00	0.500

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	MPL-21-0112-MSD	**Prep Method:**	415.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	415.1	**Cal Date:**	12/06/2011 09:40
Workgroup #:	WG388455	**Analyst:**	JBK	**Run Date:**	02/01/2012 12:11
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	TC02012012.011
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon		11.3		1.00	0.500

2.2.10.2 QC Summary Data

Total Organic Carbon Example Calculations
(Direct Readout Parameter)

(Readout)/(dilution) = mg/L

where:

Readout = direct readout from the instrument
dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)

Microbac Laboratories Inc.

Data Checklist

Date: 01-FEB-2012
Analyst: JBK
Analyst: NA
Method: TOC
Instrument: TOC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388455

Calibration/Linearity	12/06/2011
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	
Case Narratives	
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JBK
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
03-FEB-2012

Secondary Reviewer:
03-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-03-2012 15:28:09

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 415.1 AAB#: WG388455

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12							28		02/01/12	4.9	28	
MPL-21-0112-MS	02	01/27/12							28		02/01/12	4.9	28	
MPL-21-0112-MSD	03	01/27/12							28		02/01/12	4.9	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2298453
Report generated 02/03/2012 15:25

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: TC02012012.003
Prep Date: 02/01/12 10:30
Analyzed Date: 02/01/12 10:30
Analyst: JBK

Work Group: WG388455
Blank Sample ID: WG388455-01
Instrument ID: TOC-VWP
Method: 415.1

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388455-02	TC02012012.004	02/01/12 10:42	01
LCS2	WG388455-03	TC02012012.005	02/01/12 10:56	01
MPL-21-0112-1	L12010767-01	TC02012012.008	02/01/12 11:33	01
DUP	WG388455-05	TC02012012.009	02/01/12 11:45	01
MPL-21-0112-MS	L12010767-02	TC02012012.010	02/01/12 11:58	01
MPL-21-0112-MSD	L12010767-03	TC02012012.011	02/01/12 12:11	01

Report Name: BLANK_SUMMARY
PDF File ID: 2298454
Report generated 02/03/2012 15:25

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 02/01/12 10:30 Sample ID: WG388455-01
Instrument ID: TOC-VWP Run Date: 02/01/12 10:30 Prep Method: 415.1
File ID: TC02012012.003 Analyst: JBK Method: 415.1
Workgroup (AAB#): WG388455 Matrix: Water Units: mg/L
Contract #: Cal ID: TOC-VW-06-DEC-11

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Total Organic Carbon	0.500	1.00	0.500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name: BLANK
PDF ID: 2298455
03-FEB-2012 15:25

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Analyst: JBK Prep Method: 415.1
Instrument ID: TOC-VWP Matrix: Water Method: 415.1
Workgroup (AAB#): WG388455 Units: mg/L
QC Key: DOD4 Lot #: STD49306

Sample ID: WG388455-02 LCS File ID: TC02012012.004 Run Date: 02/01/2012 10:42
Sample ID: WG388455-03 LCS2 File ID: TC02012012.005 Run Date: 02/01/2012 10:56

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Organic Carbon	25.0	26.4	106	25.0	26.2	105	0.950	85 - 115	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2298456
Report generated: 02/03/2012 15:25

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: TOC-VWP- 06-DEC-11 Worknum: WG388455

Instrument ID: TOC-VWP Contract #: Prep Method: 415.1

Parent ID: L12010767-01 File ID: TC02012012.008 Dil: 1 Method: 415.1

Sample ID: L12010767-02 MS File ID: TC02012012.010 Dil: 1 Matrix: Water

Sample ID: L12010767-03 MSD File ID: TC02012012.011 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Total Organic Carbon	1.53	10.0	11.4	98.5	10.0	11.3	97.7	0.706	85 - 115	15	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 2298457
Report generated 02/03/2012 15:25

2.2.10.3 Raw Data

WG384145

TC/TIC CURVES

Total Organic Carbon

MAKE DAILY

CCV (TOC): _____ (5/200)(1000) = 25mg/L

LCS (TOC): _____ (5/200)(1000) = 25mg/L

CCV (TIC): _____ (5/200)(1000) = 25mg/L

See Below

MS (TOC): _____

Calibration Curve Date: _____

Reagent: RGT 16590 RGT 16642

☑ SM5310-C : Matrix 2 WG_____

☐ EPA 415.1/9060A(mod): Matrix 1 WG_____ WG_____

SOP: K 4151 Rev. 13

Instrument: Shimadza TOC-VWP/ASI

DAILY CHECK

☑ drain reservoir filled
☑ ASI water bottle full
☑ dilution water bottle full
☑ 3rd bottle full
☑ sufficient gas
☑ sufficient persulfate
☑ sufficient acid
☑ waste container

Position	Sample ID	Dilution	Position	Sample ID	Dilution	Position	Sample ID	Dilution
1	TC Curve		26	TC Curve		51		
2	TIC Curve		27	STD 47222		52		
3	TC ICV		28			53	See SOP for	
4	TIC ICV		29	TIC Curve		54	Curve points	
5			30	STD 47189		55		
6			31			56		
7			32			57		
8			33			58		
9			34			59		
10			35			60		
11			36			61		
12			37	TC ICV		62		
13			38	STD 47544		63	5/200(1000)	
14			39			64	= 25 mg/L	
15			40	TIC ICV		65		
16			41	STD 47190		66		
17			42			67		
18			43			68		
19	All points analyzed		44			69		
20	in duplicate		45			70		
21			46			71		
22			47			72		
23			48			73		
24			49			74		
25			50			75		

Analyst: _____ Date/Time: 12/04/2011

DCN#89227

C:\TOC3201\Data\CURVES-12-06-2011.t32

	Analyst	Sample Name	Result	Status	Date / Time	Vial
1	TC	TC CURVE		Complet	12/06/2011 09:46:27 AM	0, 1, 2, 3, 4, 5
2	IC	TIC CURVE		Complet	12/06/2011 05:00:56 PM	0, 6, 7, 8, 9, 10
3	TC	TC ICV	✓ 93.08% TC:23.27mg/L	Complet	12/06/2011 05:13:38 PM	11
4	IC	TIC ICV	✓ 104.24% IC:26.21mg/L	Complet	12/06/2011 05:25:50 PM	12

12/07/2011 08:14:31 AM 1/1

Instr.Information

System TOCVW ASI
Detector Wet Chemical

Cal. Curve

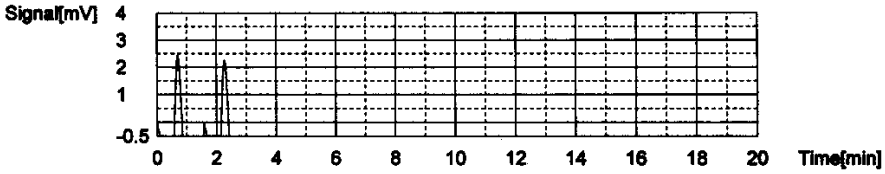
Sample Name: TC CURVE
Sample ID: Untitled
Cal. Curve: TCCURVE-12-06-2011.2011_12_06_08_40_57.cal
Status Completed

Type	Anal.
Standard	TC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.123	500uL	1	*******		12/06/2011 08:44:40 AM
2	5.308	500uL	1	*******		12/06/2011 08:48:33 AM

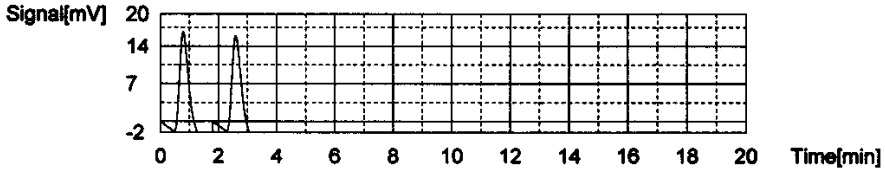
Acid Add. 0.000%
Mean Area 5.716



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	39.77	500uL	1	*******		12/06/2011 08:54:04 AM
2	39.18	500uL	1	*******		12/06/2011 08:58:10 AM

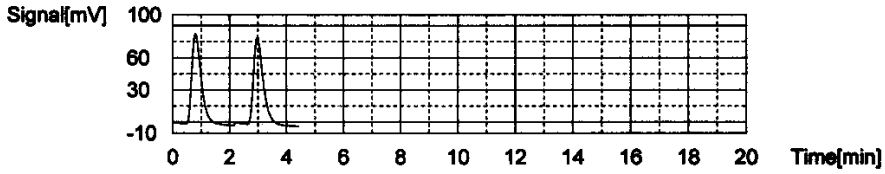
Acid Add. 0.000%
Mean Area 39.48



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	191.7	500uL	1	*******		12/06/2011 09:04:17 AM
2	189.4	500uL	1	*******		12/06/2011 09:08:49 AM

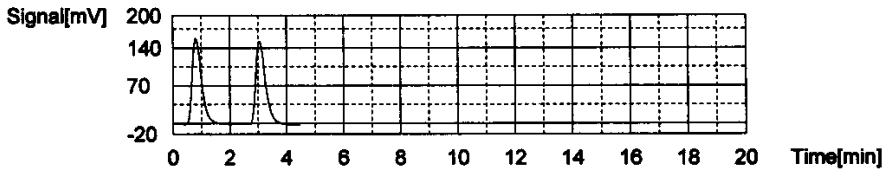
Acid Add. 0.000%
Mean Area 190.6



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	367.0	500uL	1	*******		12/06/2011 09:15:00 AM
2	367.7	500uL	1	*******		12/06/2011 09:20:26 AM

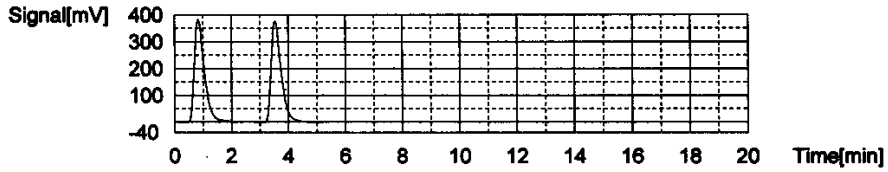
Acid Add. 0.000%
Mean Area 367.4



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	938.7	500uL	1	*******		12/06/2011 09:27:05 AM
2	928.1	500uL	1	*******		12/06/2011 09:31:51 AM

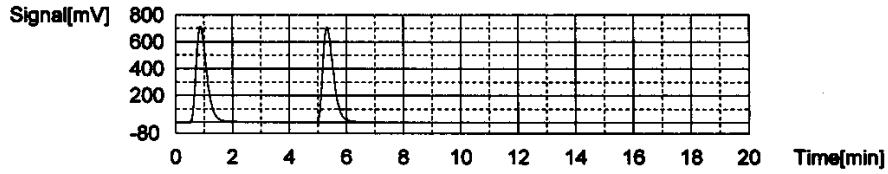
Acid Add. 0.000%
Mean Area 933.4



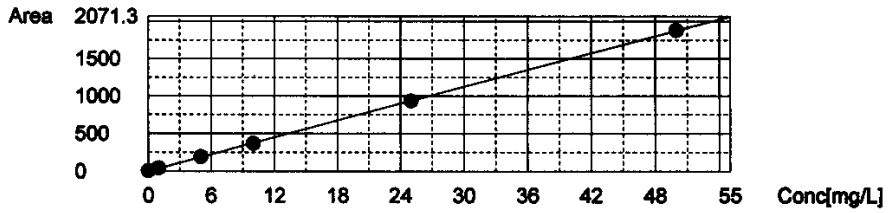
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1902	500uL	1	*******		12/06/2011 09:40:15 AM
2	1864	500uL	1	*******		12/06/2011 09:46:27 AM

Acid Add. 0.000%
Mean Area 1883



Slope: 37.57
Intercept 0.09333
r^2 0.999936 ✓
Zero Shift No



Cal. Curve

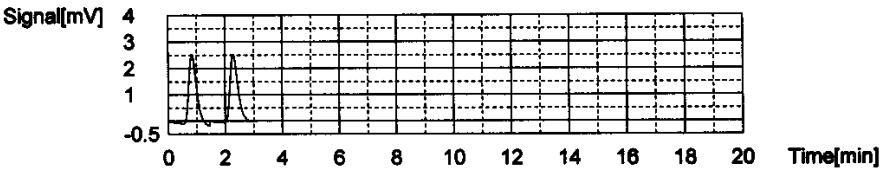
Sample Name: TIC CURVE
Sample ID: Untitled
Cal. Curve: TICCURVE-12-06-2011B.2011_12_06_15_47_44.cal
Status Completed

Type	Anal.
Standard	IC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.003	500uL	1	*******		12/06/2011 03:51:39 PM
2	4.762	500uL	1	*******		12/06/2011 03:55:32 PM

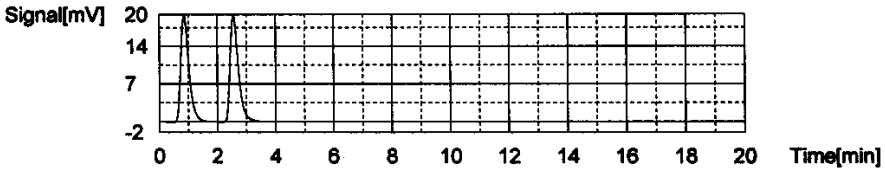
Acid Add. 10.00%
Mean Area 4.883



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	38.88	500uL	1	*******		12/06/2011 04:02:55 PM
2	38.91	500uL	1	*******		12/06/2011 04:07:20 PM

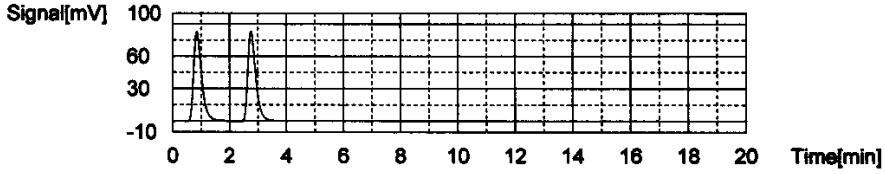
Acid Add. 10.00%
Mean Area 38.90



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	160.3	500uL	1	*******		12/06/2011 04:15:09 PM
2	162.3	500uL	1	*******		12/06/2011 04:19:53 PM

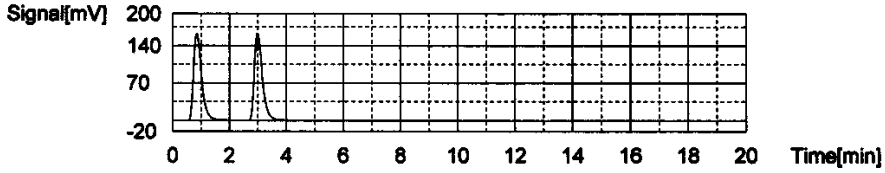
Acid Add. 10.00%
Mean Area 161.3



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	317.9	500uL	1	*******		12/06/2011 04:28:01 PM
2	319.9	500uL	1	*******		12/06/2011 04:33:00 PM

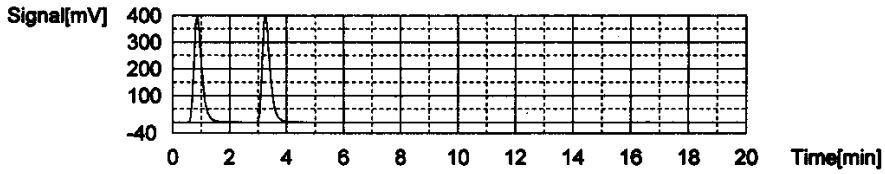
Acid Add. 10.00%
Mean Area 318.9



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	765.1	500uL	1	*******		12/06/2011 04:41:31 PM
2	765.8	500uL	1	*******		12/06/2011 04:46:44 PM

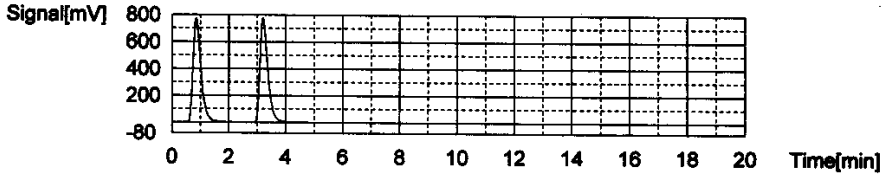
Acid Add. 10.00%
Mean Area 765.5



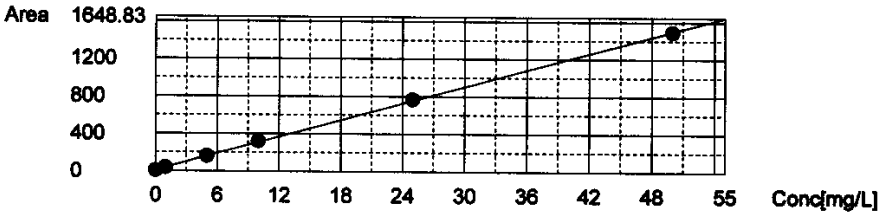
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1490	500uL	1	*******		12/06/2011 04:55:30 PM
2	1495	500uL	1	*******		12/06/2011 05:00:56 PM

Acid Add. 10.00%
Mean Area 1493



Slope: 29.72
Intercept 12.89
r^2 0.999826 ✓
Zero Shift No



Sample

Sample Name: TC ICV
Sample ID: Untitled
Origin: TCCURVE-12-06-2011.cal
Status Completed
Chk. Result

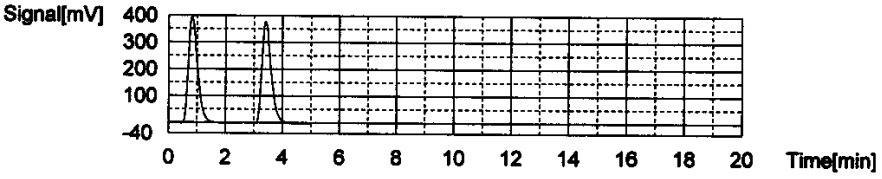
Type	Anal.	Dil.	Result
Unknown	TC	1.000	TC:23.27mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	889.3	23.67mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	12/06/2011 05:08:57 PM
2	859.5	22.87mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	12/06/2011 05:13:38 PM

Mean Area 874.4
Mean Conc. 23.27mg/L



Sample

Sample Name: TIC ICV
Sample ID: Untitled
Origin: TICCURVE-12-06-2011B.cal
Status Completed
Chk. Result

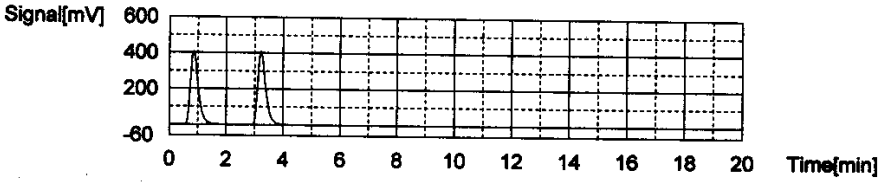
Type	Anal.	Dil.	Result
Unknown	IC	1.000	IC:26.21mg/L

1. Det

Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	788.9	26.11mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	12/06/2011 05:20:43 PM
2	794.9	26.31mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	12/06/2011 05:25:50 PM

Mean Area 791.9
Mean Conc. 26.21mg/L



Total Organic Carbon

MAKE DAILY

CCV (TOC): STD 47222
(5/200)(1000) = 25mg/L

LCS (TOC): STD 49306
(5/200)(1000) = 25mg/L

CCV (TIC): STD 47189
(5/200)(1000) = 25mg/L

MS (TOC): STD 49306
0.4/40 (1000) = 10

Calibration Curve Date: 12/06/11

Reagent: RGT16963
RGT16590

☐ SM5310-C : Matrix 2 WG_____

☑ EPA 415.1/9060A(mod): Matrix 1 WG_____ SOP: K 4151 Rev. 14

WG_____ Instrument: Shimadza TOC-VWP/ASI

DAILY CHECK

- ☑ drain reservoir filled
- ☑ ASI water bottle full
- ☑ dilution water bottle full
- ☑ 3rd bottle full
- ☑ sufficient gas
- ☑ sufficient persulfate
- ☑ sufficient acid
- ☑ waste container

Position	Sample ID	Dilution	Position	Sample ID	Dilution	Position	Sample ID	Dilution
1	CCV25		26	CCV		51		
2	TIC25		27	CCB		52		
3	Blank		28	01-791-01	1/20	53		
4	LCS25		29	01- -05	1/20	54		
5	LCSDup		30	-09	1/20	55		
6	01-726-01	1/4	31	CCV		56		
7	-02 DUP		32	CCB		57		
8	01-747-01		33			58		
9	Dup		34			59		
10	MS -02		35			60		
11	SD -03		36			61		
12	01-791-01	1/10	37			62		
13	-02	1/10	38			63		
14	CCV		39			64		
15	CCB		40			65		
16	01-791-03		41			66		
17	-04		42			67		
18	-05	1/3	43			68		
19	-06	1/5	44			69		
20	-07	1/2	45			70		
21	-08 DUP		46			71		
22	-09	1/5	47			72		
23	-11	1/3	48			73		
24	01-798-01		49			74		
25			50			75		

Analyst: [signature] Date/Time: 2/01/12

DCN#89786

C:\TOC3201\Data\02-01-2012-JBK-TOC.t32

	Analysi	Sample Name	Result	Status	Date / Time	Vial
1	TOC	CCV 25	!!Error!! TOC:21.74mg/L TC:21.58mg/L IC:-0.1633mg	Complet	02/01/2012 10:11:28 AM	1
2	TOC	TIC 25	TOC:2.489mg/L TC:26.91mg/L IC:24.42mg/L	Complet	02/01/2012 10:25:19 AM	2
3	TOC	WG388455-01 BLANK	!!Error!! TOC:0.4741mg/L TC:0.3076mg/L IC:-0.1665m	Complet	02/01/2012 10:34:20 AM	0
4	TOC	WG388455-02 LCS25	!!Error!! TOC:26.43mg/L TC:26.24mg/L IC:-0.1890mg	Complet	02/01/2012 10:47:12 AM	4
5	TOC	WG388455-03 LCSDUP	!!Error!! TOC:26.18mg/L TC:25.99mg/L IC:-0.1922mg	Complet	02/01/2012 11:00:32 AM	5
6	TOC	L12010726-01 (4)	TOC:1.340mg/L TC:25.78mg/L IC:24.44mg/L	Complet	02/01/2012 11:14:20 AM	6
7	TOC	L12010726-02	!!Error!! TOC:0.8374mg/L TC:0.7497mg/L IC:-0.0876	Complet	02/01/2012 11:25:48 AM	7
8	TOC	L12010767-01	TOC:1.525mg/L TC:11.65mg/L IC:10.13mg/L	Complet	02/01/2012 11:38:25 AM	8
9	TOC	WG388455-05 DUP	TOC:1.274mg/L TC:11.26mg/L IC:9.990mg/L	Complet	02/01/2012 11:50:48 AM	9
10	TOC	L12010767-02 MS	TOC:11.37mg/L TC:22.96mg/L IC:11.59mg/L	Complet	02/01/2012 12:04:05 PM	10
11	TOC	L12010767-03 MSD	TOC:11.29mg/L TC:22.71mg/L IC:11.42mg/L	Complet	02/01/2012 12:17:04 PM	11
12	TOC	L12010791-01 (10)	TOC:43.21mg/L TC:52.03mg/L IC:8.823mg/L	Complet	02/01/2012 12:32:23 PM	12
13	TOC	L12010791-02 (10)	TOC:30.67mg/L TC:36.49mg/L IC:5.821mg/L	Complet	02/01/2012 12:46:18 PM	13
14	TOC	CCV	!!Error!! TOC:24.74mg/L TC:24.58mg/L IC:-0.1616mg	Complet	02/01/2012 12:59:16 PM	14
15	TOC	CCB	!!Error!! TOC:0.4546mg/L TC:0.2584mg/L IC:-0.1962m	Complet	02/01/2012 01:08:09 PM	0
16	TOC	L12010791-03	TOC:11.20mg/L TC:41.79mg/L IC:30.58mg/L	Complet	02/01/2012 01:24:04 PM	16
17	TOC	L12010791-04	TOC:4.827mg/L TC:20.04mg/L IC:15.22mg/L	Complet	02/01/2012 01:37:24 PM	17
18	TOC	L12010791-05 (3)	!!Error!! TOC:-11.54mg/L TC:113.5mg/L IC:125.0mg/L	Complet	02/01/2012 01:55:17 PM	18
19	TOC	L12010791-06 (5)	TOC:13.99mg/L TC:40.61mg/L IC:26.63mg/L	Complet	02/01/2012 02:10:10 PM	19
20	TOC	L12010791-07 (2)	TOC:7.957mg/L TC:35.53mg/L IC:27.57mg/L	Complet	02/01/2012 02:25:01 PM	20
21	TOC	L12010791-08	!!Error!! TOC:0.8529mg/L TC:0.7649mg/L IC:-0.08801	Complet	02/01/2012 02:36:27 PM	21
22	TOC	L12010791-09 (5)	TOC:48.08mg/L TC:57.04mg/L IC:8.960mg/L	Complet	02/01/2012 02:51:54 PM	22
23	TOC	L12010791-11 (3)	TOC:6.242mg/L TC:18.29mg/L IC:12.05mg/L	Complet	02/01/2012 03:05:03 PM	23
24	TOC	L12010798-01	TOC:1.029mg/L TC:3.322mg/L IC:2.292mg/L	Complet	02/01/2012 03:16:58 PM	24
25	TOC		!!Error!! TOC:26.01mg/L TC:25.84mg/L IC:-0.1751mg	Complet	02/01/2012 03:30:03 PM	25
26	TOC	CCV	!!Error!! TOC:21.95mg/L TC:21.76mg/L IC:-0.1827mg	Complet	02/01/2012 03:42:09 PM	26
27	TOC	CCB	!!Error!! TOC:0.4522mg/L TC:0.2561mg/L IC:-0.1961m	Complet	02/01/2012 03:51:00 PM	0
28	TOC	L12010791-01 (20)	TOC:32.51mg/L TC:40.48mg/L IC:7.968mg/L	Complet	02/01/2012 04:31:24 PM	28
29	TOC	L12010791-05 (20)	TOC:2.050mg/L TC:78.33mg/L IC:76.28mg/L	Complet	02/01/2012 04:48:03 PM	29
30	TOC	L12010791-09 (20)	TOC:23.35mg/L TC:29.01mg/L IC:5.660mg/L	Complet	02/01/2012 05:01:56 PM	30
31	TOC	CCV	!!Error!! TOC:25.00mg/L TC:24.96mg/L IC:-0.03889mg	Complet	02/01/2012 05:15:14 PM	31
32	TOC	CCB	!!Error!! TOC:0.4325mg/L TC:0.2538mg/L IC:-0.1788m	Complet	02/01/2012 05:24:10 PM	0

02/03/2012 08:19:39 AM

1/1

Instr.Information

System TOCVW ASI
Detector Wet Chemical

Sample

Sample Name: CCV 25
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

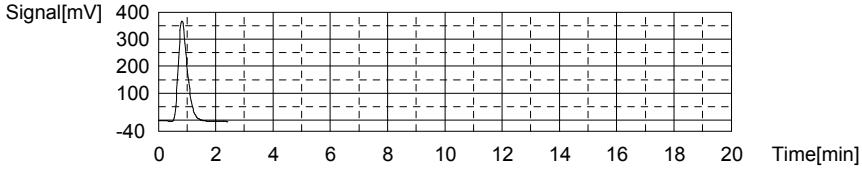
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:21.74mg/L TC:21.58mg/L IC:-0.1633mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	810.8	21.58mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 10:07:03 AM

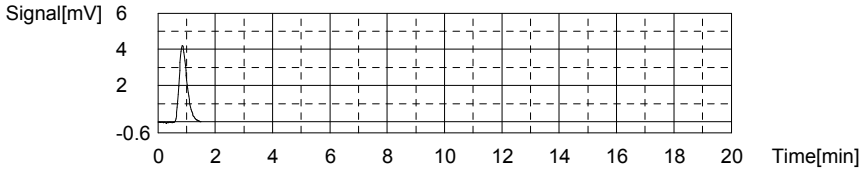
Mean Area 810.8
Mean Conc. 21.58mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.032	-0.1633mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 10:11:28 AM

Mean Area 8.032
Mean Conc. -0.1633mg/L



Sample

Sample Name: TIC 25
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

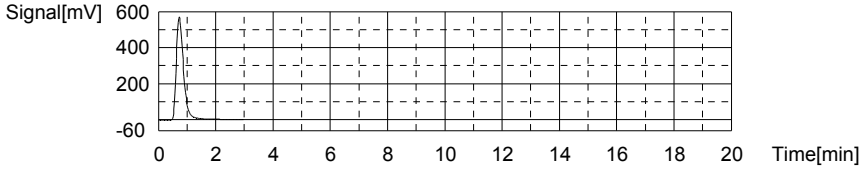
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.489mg/L TC:26.91mg/L IC:24.42mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1011	26.91mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 10:19:52 AM

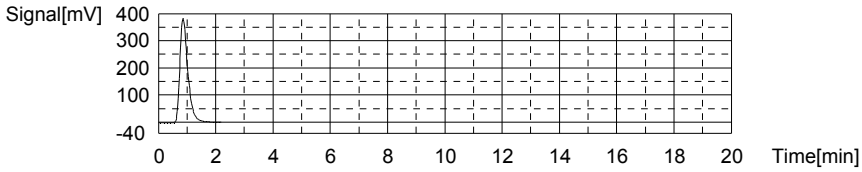
Mean Area 1011
Mean Conc. 26.91mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	738.6	24.42mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 10:25:19 AM

Mean Area 738.6
Mean Conc. 24.42mg/L



Sample

Sample Name: WG388455-01 BLANK
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

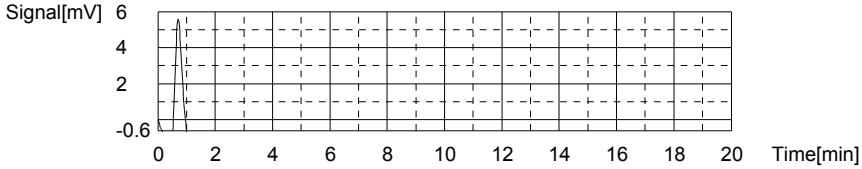
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.4741mg/L TC:0.3076mg/L IC:-0.1665mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.65	0.3076mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 10:30:18 AM

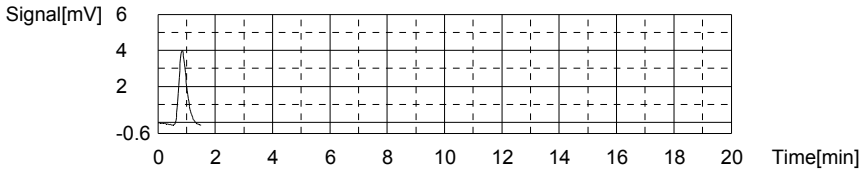
Mean Area 11.65
Mean Conc. 0.3076mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.937	-0.1665mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 10:34:20 AM

Mean Area 7.937
Mean Conc. -0.1665mg/L



Sample

Sample Name: WG388455-02 LCS25
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

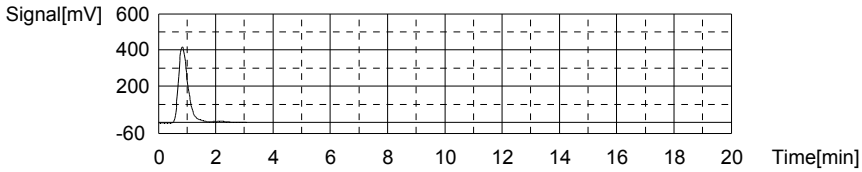
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.43mg/L TC:26.24mg/L IC:-0.1890mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	985.9	26.24mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 10:42:50 AM

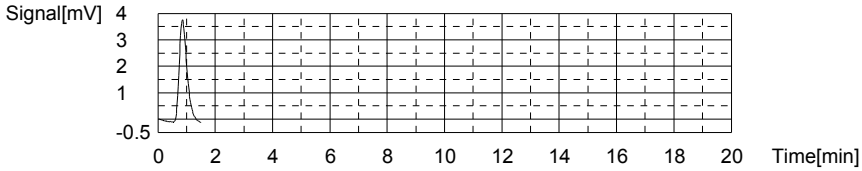
Mean Area 985.9
Mean Conc. 26.24mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.269	-0.1890mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 10:47:12 AM

Mean Area 7.269
Mean Conc. -0.1890mg/L



Sample

Sample Name: WG388455-03 LCSDUP
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

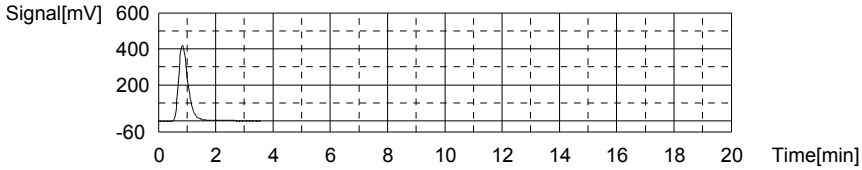
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.18mg/L TC:25.99mg/L IC:-0.1922mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	976.6	25.99mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 10:56:12 AM

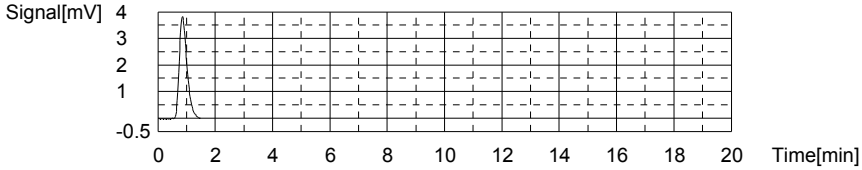
Mean Area 976.6
Mean Conc. 25.99mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.172	-0.1922mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 11:00:32 AM

Mean Area 7.172
Mean Conc. -0.1922mg/L



Sample

Sample Name: L12010726-01 (4)
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

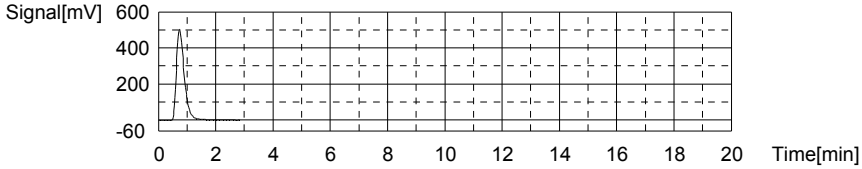
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.340mg/L TC:25.78mg/L IC:24.44mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	968.7	25.78mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 11:08:47 AM

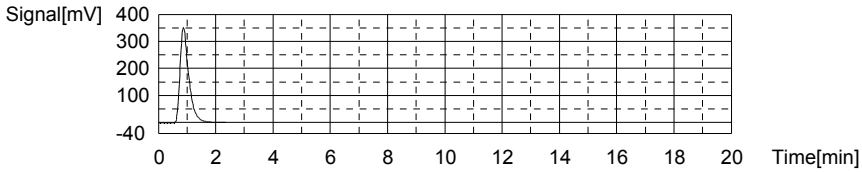
Mean Area 968.7
Mean Conc. 25.78mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	739.3	24.44mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 11:14:20 AM

Mean Area 739.3
Mean Conc. 24.44mg/L



Sample

Sample Name: L12010726-02
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

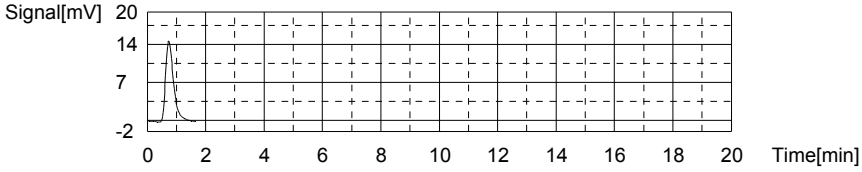
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.8374mg/L TC:0.7497mg/L IC:-0.08767mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.26	0.7497mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 11:21:24 AM

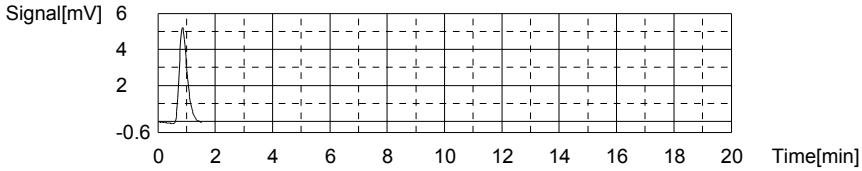
Mean Area 28.26
Mean Conc. 0.7497mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.28	-0.08767mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 11:25:48 AM

Mean Area 10.28
Mean Conc. -0.08767mg/L



Sample

Sample Name: L12010767-01
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

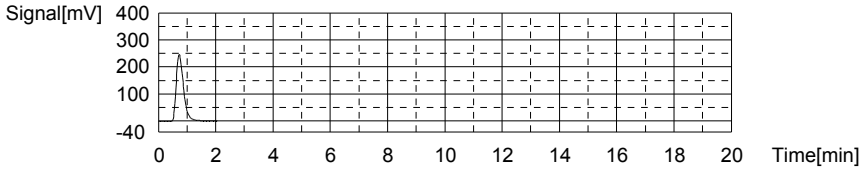
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.525mg/L TC:11.65mg/L IC:10.13mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	437.9	11.65mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 11:33:17 AM

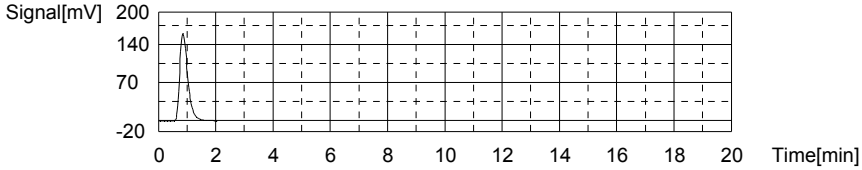
Mean Area 437.9
Mean Conc. 11.65mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	313.9	10.13mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 11:38:25 AM

Mean Area 313.9
Mean Conc. 10.13mg/L



Sample

Sample Name: WG388455-05 DUP
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

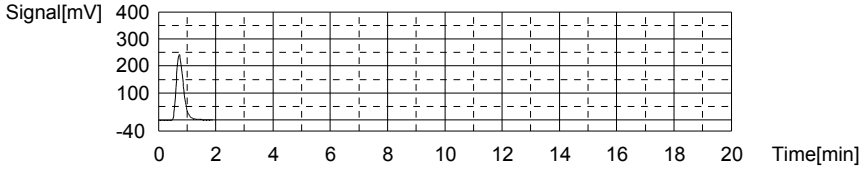
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.274mg/L TC:11.26mg/L IC:9.990mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	423.3	11.26mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 11:45:44 AM

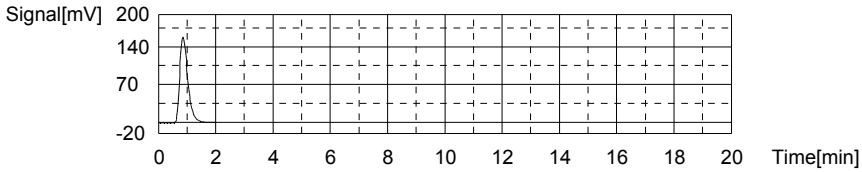
Mean Area 423.3
Mean Conc. 11.26mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	309.8	9.990mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 11:50:48 AM

Mean Area 309.8
Mean Conc. 9.990mg/L



Sample

Sample Name: L12010767-02 MS
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

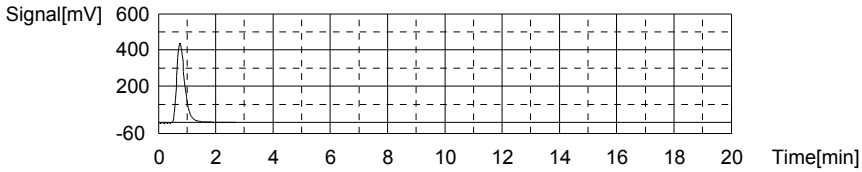
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.37mg/L TC:22.96mg/L IC:11.59mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	862.8	22.96mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 11:58:55 AM

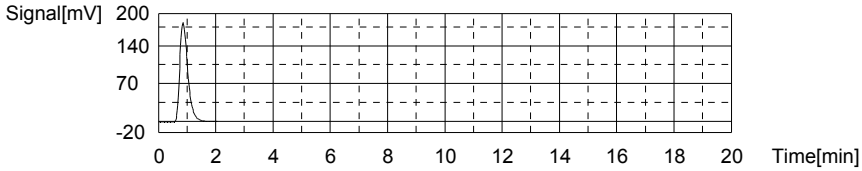
Mean Area 862.8
Mean Conc. 22.96mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	357.3	11.59mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 12:04:05 PM

Mean Area 357.3
Mean Conc. 11.59mg/L



Sample

Sample Name: L12010767-03 MSD
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

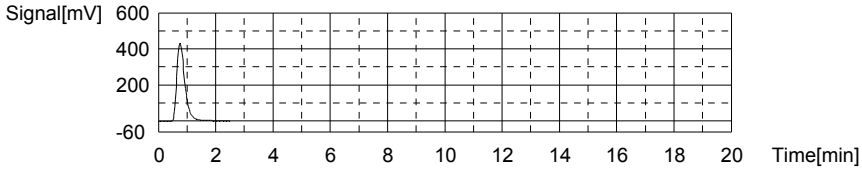
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.29mg/L TC:22.71mg/L IC:11.42mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	853.2	22.71mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 12:11:59 PM

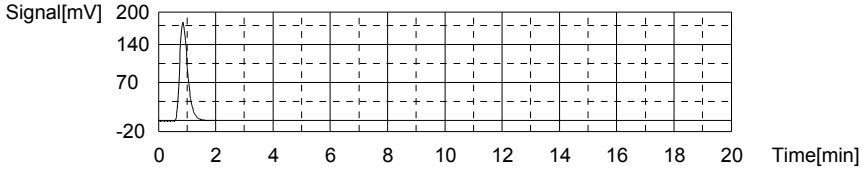
Mean Area 853.2
Mean Conc. 22.71mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	352.2	11.42mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 12:17:04 PM

Mean Area 352.2
Mean Conc. 11.42mg/L



Sample

Sample Name: L12010791-01 (10)
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

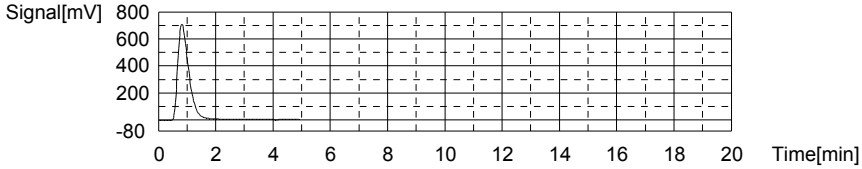
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:43.21mg/L TC:52.03mg/L IC:8.823mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1955	52.03mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 12:27:25 PM

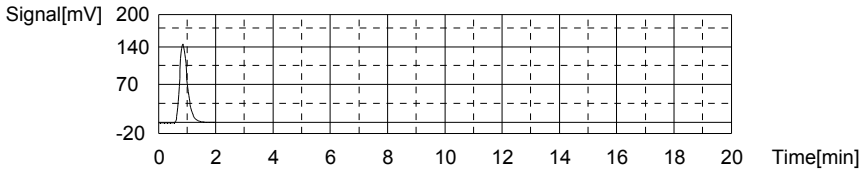
Mean Area 1955
Mean Conc. 52.03mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	275.1	8.823mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 12:32:23 PM

Mean Area 275.1
Mean Conc. 8.823mg/L



Sample

Sample Name: L12010791-02 (10)
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

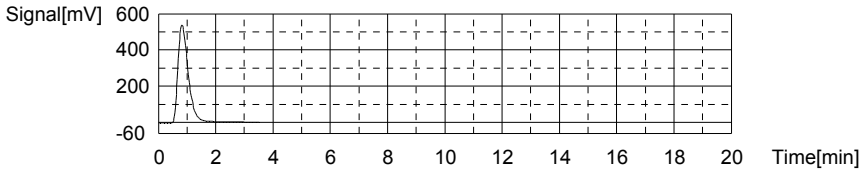
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:30.67mg/L TC:36.49mg/L IC:5.821mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1371	36.49mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 12:41:20 PM

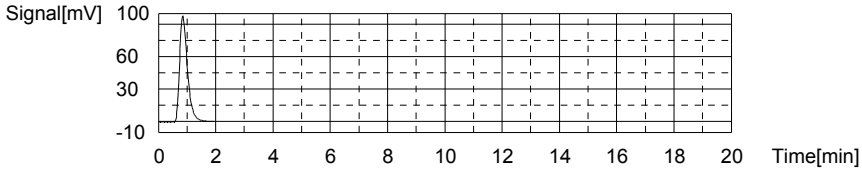
Mean Area 1371
Mean Conc. 36.49mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	185.9	5.821mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 12:46:18 PM

Mean Area 185.9
Mean Conc. 5.821mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

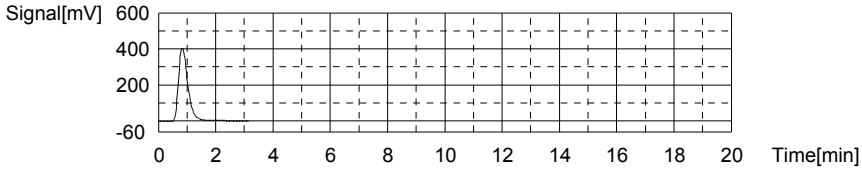
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:24.74mg/L TC:24.58mg/L IC:-0.1616mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	923.6	24.58mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 12:54:53 PM

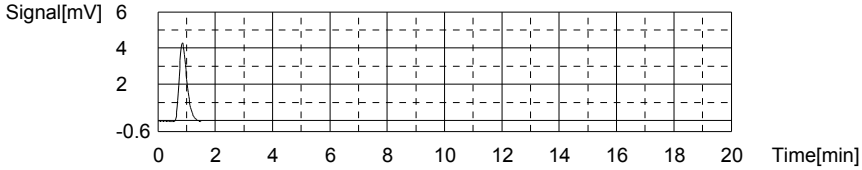
Mean Area 923.6
Mean Conc. 24.58mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.082	-0.1616mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 12:59:16 PM

Mean Area 8.082
Mean Conc. -0.1616mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

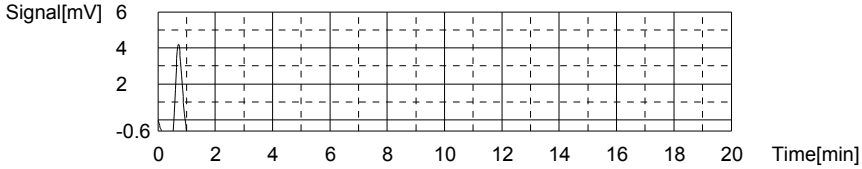
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.4546mg/L TC:0.2584mg/L IC:-0.1962mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.801	0.2584mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 01:04:17 PM

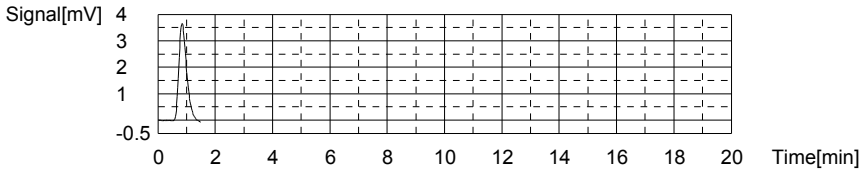
Mean Area 9.801
Mean Conc. 0.2584mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.055	-0.1962mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 01:08:09 PM

Mean Area 7.055
Mean Conc. -0.1962mg/L



Sample

Sample Name: L12010791-03
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

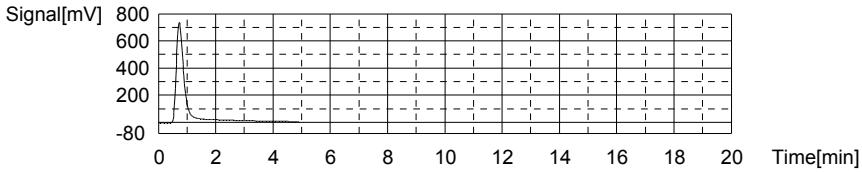
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.20mg/L TC:41.79mg/L IC:30.58mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1570	41.79mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 01:18:29 PM

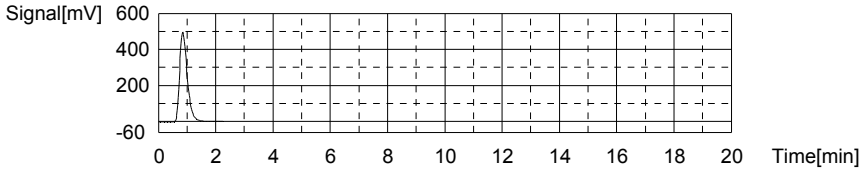
Mean Area 1570
Mean Conc. 41.79mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	921.9	30.58mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 01:24:04 PM

Mean Area 921.9
Mean Conc. 30.58mg/L



Sample

Sample Name: L12010791-04
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

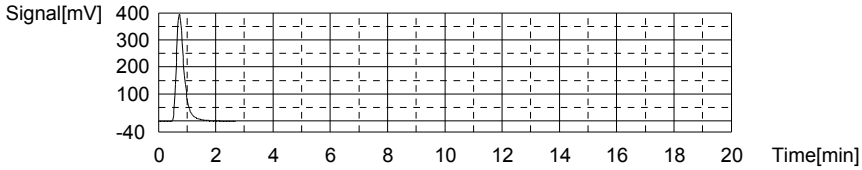
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.827mg/L TC:20.04mg/L IC:15.22mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	753.1	20.04mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 01:32:12 PM

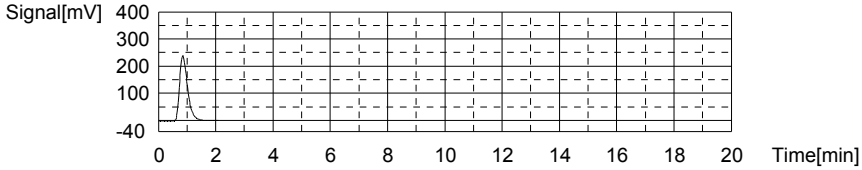
Mean Area 753.1
Mean Conc. 20.04mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	465.1	15.22mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 01:37:24 PM

Mean Area 465.1
Mean Conc. 15.22mg/L



Sample

Sample Name: L12010791-05 (3)
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

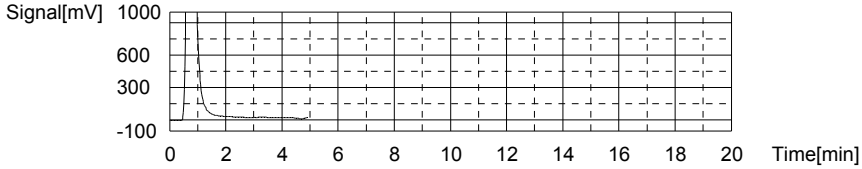
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:-11.54mg/L TC:113.5mg/L IC:125.0mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4264	113.5mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 01:47:43 PM

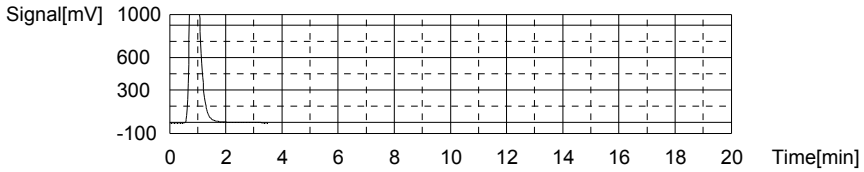
Mean Area 4264
Mean Conc. 113.5mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3729	125.0mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 01:55:17 PM

Mean Area 3729
Mean Conc. 125.0mg/L



Sample

Sample Name: L12010791-06 (5)
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

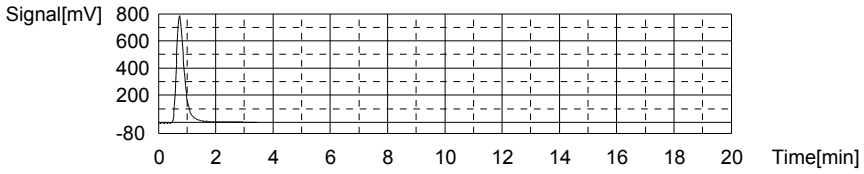
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:13.99mg/L TC:40.61mg/L IC:26.63mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1526	40.61mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 02:04:08 PM

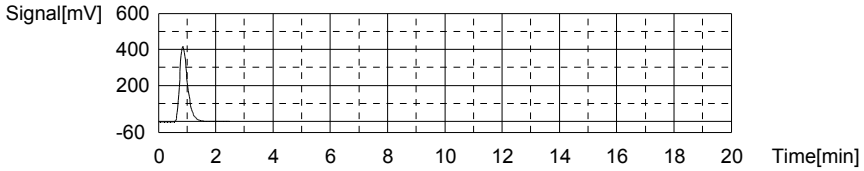
Mean Area 1526
Mean Conc. 40.61mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	804.3	26.63mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 02:10:10 PM

Mean Area 804.3
Mean Conc. 26.63mg/L



Sample

Sample Name: L12010791-07 (2)
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

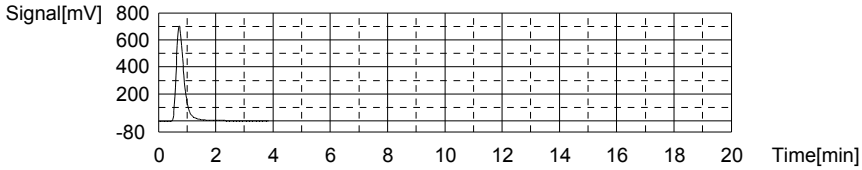
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:7.957mg/L TC:35.53mg/L IC:27.57mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1335	35.53mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 02:19:26 PM

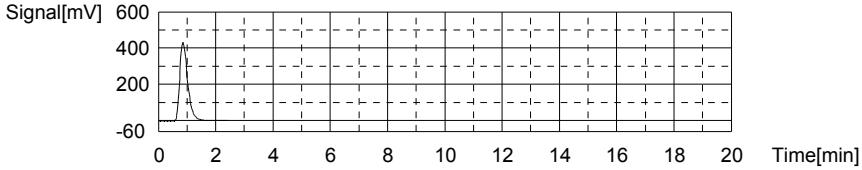
Mean Area 1335
Mean Conc. 35.53mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	832.4	27.57mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 02:25:01 PM

Mean Area 832.4
Mean Conc. 27.57mg/L



Sample

Sample Name: L12010791-08
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

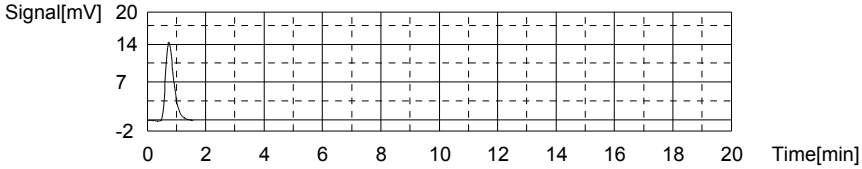
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.8529mg/L TC:0.7649mg/L IC:-0.08801mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.83	0.7649mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 02:32:01 PM

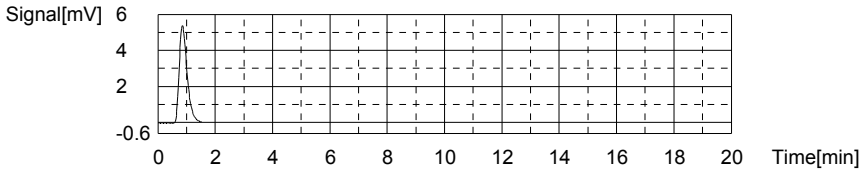
Mean Area 28.83
Mean Conc. 0.7649mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.27	-0.08801mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 02:36:27 PM

Mean Area 10.27
Mean Conc. -0.08801mg/L



Sample

Sample Name: L12010791-09 (5)
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

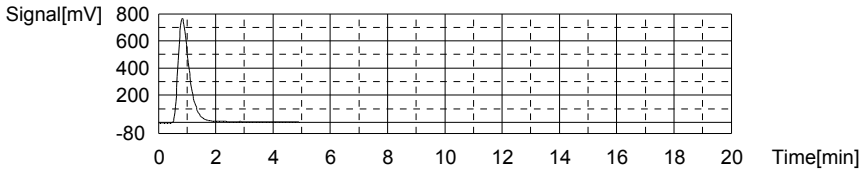
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:48.08mg/L TC:57.04mg/L IC:8.960mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2143	57.04mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 02:46:47 PM

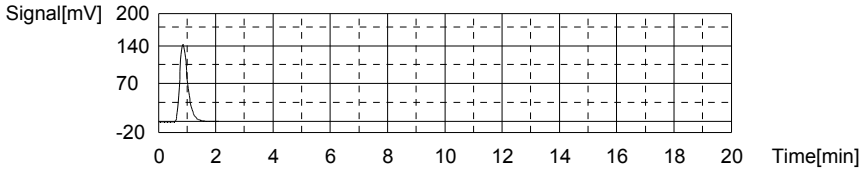
Mean Area 2143
Mean Conc. 57.04mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	279.2	8.960mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 02:51:54 PM

Mean Area 279.2
Mean Conc. 8.960mg/L



Sample

Sample Name: L12010791-11 (3)
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

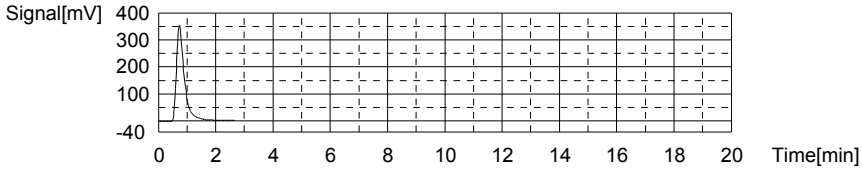
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.242mg/L TC:18.29mg/L IC:12.05mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	687.3	18.29mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 03:00:00 PM

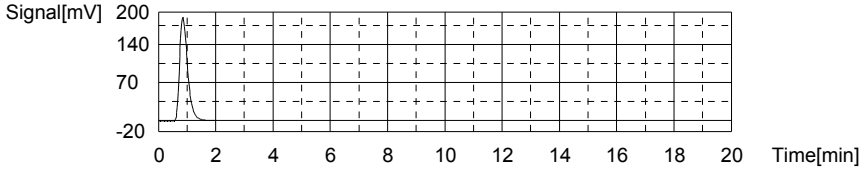
Mean Area 687.3
Mean Conc. 18.29mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	371.0	12.05mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 03:05:03 PM

Mean Area 371.0
Mean Conc. 12.05mg/L



Sample

Sample Name: L12010798-01
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

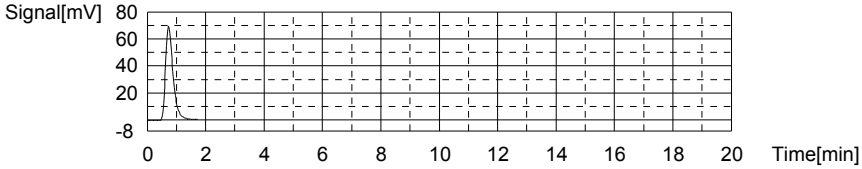
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.029mg/L TC:3.322mg/L IC:2.292mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	124.9	3.322mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 03:12:13 PM

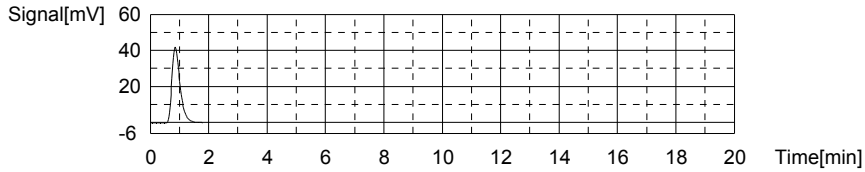
Mean Area 124.9
Mean Conc. 3.322mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.02	2.292mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 03:16:58 PM

Mean Area 81.02
Mean Conc. 2.292mg/L



Sample

Sample Name:
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

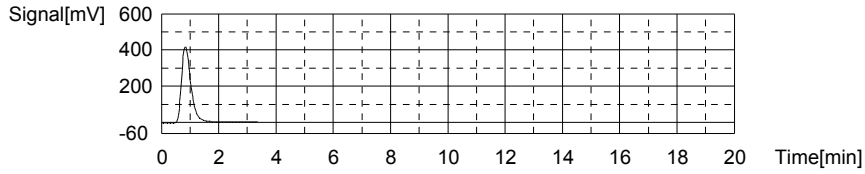
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.01mg/L TC:25.84mg/L IC:-0.1751mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	970.9	25.84mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 03:25:44 PM

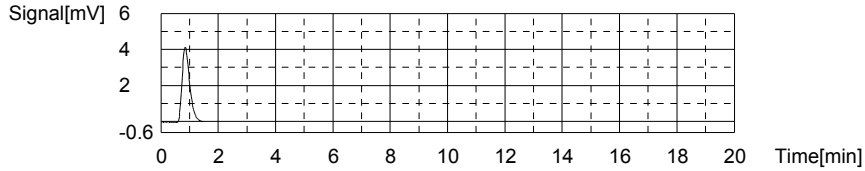
Mean Area 970.9
Mean Conc. 25.84mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.683	-0.1751mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 03:30:03 PM

Mean Area 7.683
Mean Conc. -0.1751mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

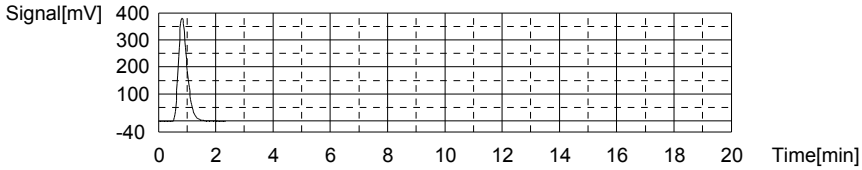
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:21.95mg/L TC:21.76mg/L IC:-0.1827mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	817.8	21.76mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 03:37:49 PM

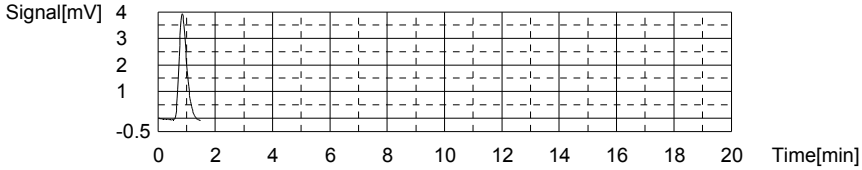
Mean Area 817.8
Mean Conc. 21.76mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.455	-0.1827mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 03:42:09 PM

Mean Area 7.455
Mean Conc. -0.1827mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

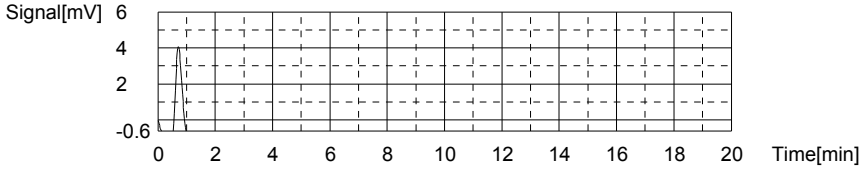
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.4522mg/L TC:0.2561mg/L IC:-0.1961mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.717	0.2561mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 03:47:09 PM

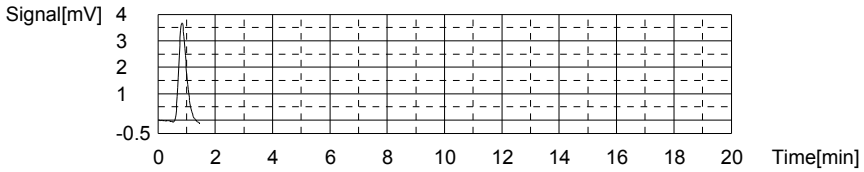
Mean Area 9.717
Mean Conc. 0.2561mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.058	-0.1961mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 03:51:00 PM

Mean Area 7.058
Mean Conc. -0.1961mg/L



Sample

Sample Name: L12010791-01 (20)
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

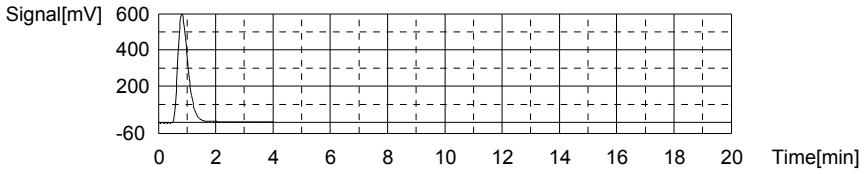
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:32.51mg/L TC:40.48mg/L IC:7.968mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1521	40.48mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 04:26:23 PM

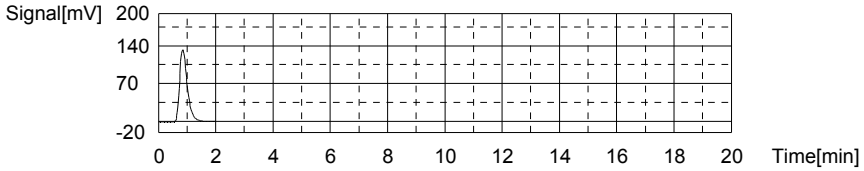
Mean Area 1521
Mean Conc. 40.48mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	249.7	7.968mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 04:31:24 PM

Mean Area 249.7
Mean Conc. 7.968mg/L



Sample

Sample Name: L12010791-05 (20)
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

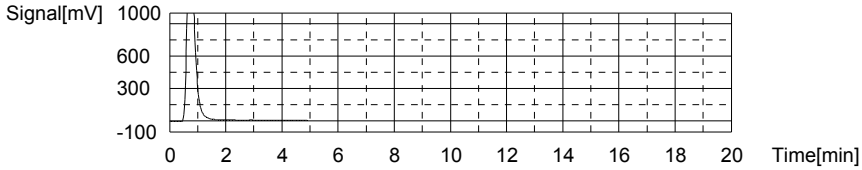
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.050mg/L TC:78.33mg/L IC:76.28mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2943	78.33mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 04:41:45 PM

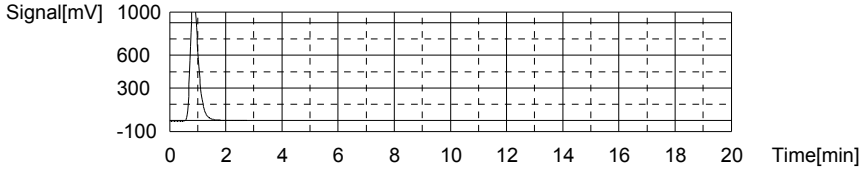
Mean Area 2943
Mean Conc. 78.33mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2280	76.28mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 04:48:03 PM

Mean Area 2280
Mean Conc. 76.28mg/L



Sample

Sample Name: L12010791-09 (20)
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

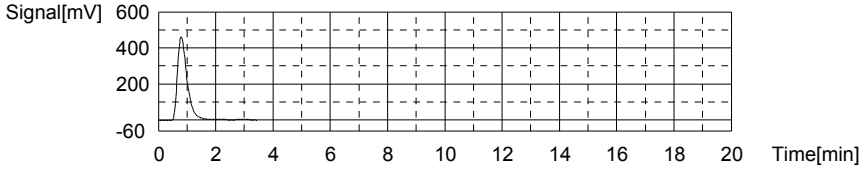
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:23.35mg/L TC:29.01mg/L IC:5.660mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1090	29.01mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 04:56:54 PM

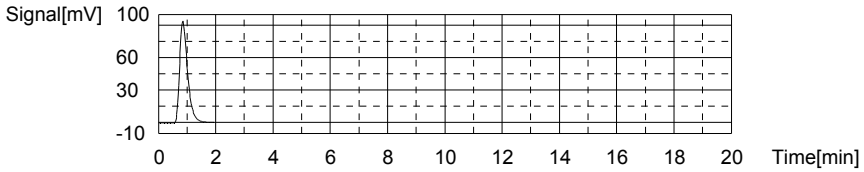
Mean Area 1090
Mean Conc. 29.01mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	181.1	5.660mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 05:01:56 PM

Mean Area 181.1
Mean Conc. 5.660mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

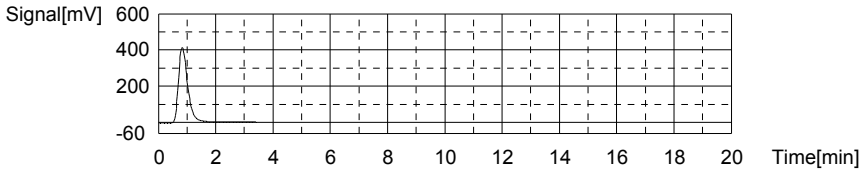
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.00mg/L TC:24.96mg/L IC:-0.03889mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	938.0	24.96mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 05:10:47 PM

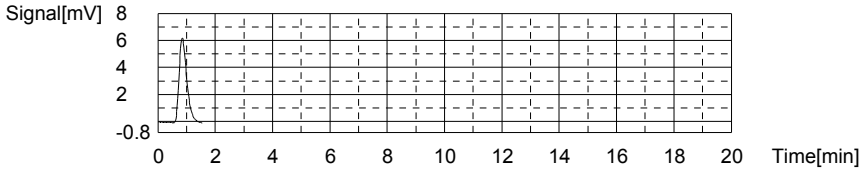
Mean Area 938.0
Mean Conc. 24.96mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.73	-0.03889mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 05:15:14 PM

Mean Area 11.73
Mean Conc. -0.03889mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-12-06-2011.met
Status Completed
Chk. Result

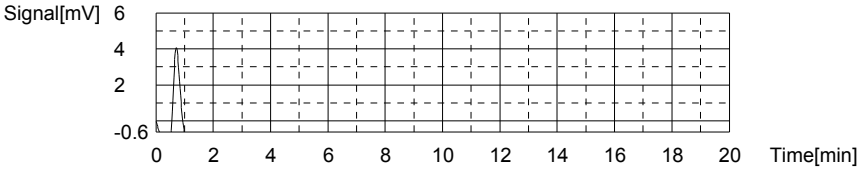
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.4325mg/L TC:0.2538mg/L IC:-0.1788mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.628	0.2538mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	02/01/2012 05:20:14 PM

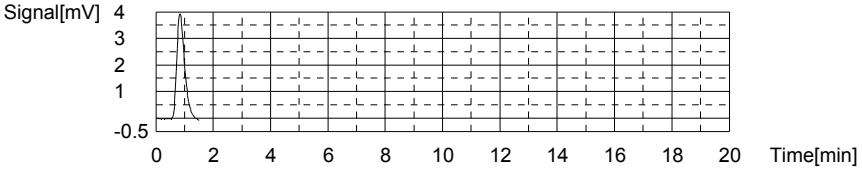
Mean Area 9.628
Mean Conc. 0.2538mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.573	-0.1788mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	02/01/2012 05:24:10 PM

Mean Area 7.573
Mean Conc. -0.1788mg/L



2.2.11 Total Suspended Solids Data

2.2.11.1 Summary Data

Login Number: L12010767
Department: Conventionals
Analyst: Holly Reed

METHOD

Analysis EPA 160.2/SM2540 D (Total Suspended Solids)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 42089
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010767
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010767-01	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-1	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.2	**Cal Date:**	
Workgroup #:	WG388360	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:46
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311046-21
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids			U	5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L12010767-02	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-MS	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.2	**Cal Date:**	
Workgroup #:	WG388360	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:46
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311046-22
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids		26.0		5.00	2.50

Sample #:	L12010767-03	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL-21-0112-MSD	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.2	**Cal Date:**	
Workgroup #:	WG388360	**Analyst:**	HJR	**Run Date:**	01/31/2012 10:46
Collect Date:	01/27/2012 14:45	**Dilution:**	1	**File ID:**	EN.1201311046-23
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids		26.0		5.00	2.50

2.2.11.2 QC Summary Data

$$[(WT2 - WT1) * 1000000]/volume = mg/L$$

where:

WT1 = weight (grams) of empty container.
WT2 = weight (grams) of dried sample and container.
1000000 = factor to get to mg/L.
volume = mL of sample used.

Microbac Laboratories Inc.

Data Checklist

Date: 31-JAN-2012
Analyst: HJR
Analyst: NA
Method: TSS
Instrument: OVEN
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388360

Calibration/Linearity	1/31/12
Second Source Check	
ICV/CCV (std)	
ICB/CCB	
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	HJR
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
02-FEB-2012

Secondary Reviewer:
02-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-02-2012 10:37:55

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 160.2 AAB#: WG388360

Login Number: L12010767

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL-21-0112-1	01	01/27/12							7		01/31/12	3.8	7	
MPL-21-0112-MS	02	01/27/12							7		01/31/12	3.8	7	
MPL-21-0112-MSD	03	01/27/12							7		01/31/12	3.8	7	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2296752
Report generated 02/02/2012 10:00

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010767
Blank File ID: EN.1201311046-01
Prep Date: 01/31/12 10:46
Analyzed Date: 01/31/12 10:46
Analyst: HJR

Work Group: WG388360
Blank Sample ID: WG388360-01
Instrument ID: OVEN
Method: 160.2

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG388360-02	EN.1201311046-02	01/31/12 10:46	
LCS2	WG388360-03	EN.1201311046-03	01/31/12 10:46	
MPL-21-0112-1	L12010767-01	EN.1201311046-21	01/31/12 10:46	
MPL-21-0112-MS	L12010767-02	EN.1201311046-22	01/31/12 10:46	
MPL-21-0112-MSD	L12010767-03	EN.1201311046-23	01/31/12 10:46	
DUP	WG388360-05	EN.1201311046-24	01/31/12 10:46	
DUP	WG388360-07	EN.1201311046-25	01/31/12 10:46	

Report Name: BLANK_SUMMARY
PDF File ID: 2296753
Report generated 02/02/2012 10:00

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010767 Prep Date: 01/31/12 10:46 Sample ID: WG388360-01
Instrument ID: OVEN Run Date: 01/31/12 10:46 Prep Method: 160.2/SM2540D
File ID: EN.1201311046-01 Analyst: HJR Method: 160.2
Workgroup (AAB#): WG388360 Matrix: Water Units: mg/L
Contract #: Cal ID: OVEN-

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Total Suspended Solids	2.50	5.00	2.50	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 2296754
02-FEB-2012 10:00

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010767 Analyst: HJR Prep Method: 160.2/SM2540D
Instrument ID: OVEN Matrix: Water Method: 160.2
Workgroup (AAB#): WG388360 Units: mg/L
QC Key: DOD4 Lot #: STD49834

Sample ID: WG388360-02 LCS File ID: EN.1201311046-02 Run Date: 01/31/2012 10:46
Sample ID: WG388360-03 LCS2 File ID: EN.1201311046-03 Run Date: 01/31/2012 10:46

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Suspended Solids	50.0	52.0	104	50.0	50.0	100	3.92	75 - 125	10	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2296755
Report generated: 02/02/2012 10:00

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L12010767 Cal ID: OVEN- Worknum: WG388360

Instrument ID: OVEN Contract #: Prep Method: 160.2/SM2540

Parent ID: L12010767-01 File ID: EN.1201311046-21 Dil: 1 Method: D

Sample ID: L12010767-02 MS File ID: EN.1201311046-22 Dil: 1 Matrix: 160.2

Sample ID: L12010767-03 MSD File ID: EN.1201311046-23 Dil: 1 Units: Water

mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Total Suspended Solids	U	25.0	26.0	104	25.0	26.0	104	0	75 - 125	10	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 2296756

Report generated 02/02/2012 10:00

2.2.11.3 Raw Data

WORKGROUP: WG388360

TOTAL SUSPENDED SOLIDS

LCS: Std 49834 Oven: [✓] TSS1 [] Other

MS: _____ mL LCS & _____ mL sample Balance: AND GR-202 / Other

Method: EPA 160.2 / SM2540D SOP #: K1602 Revision #: 13

SAMPLE	#	VOLUME (mL)	INITIAL WEIGHT WT1 (g)	DRY WEIGHT WT2A (g)	DRY WEIGHT WT2B (g)	DRY WEIGHT WT2C (g)
BLANK	BLK	200				
LCS: _____mg/L	LCS	100				
LCSDUP: _____mg/L	LCD	100				
01-0724-01	1	200				
-03	2	200				
-05	3	200				
-07	4	200				
01-0743-01	5	200				
-02	6	30				
01-0698-01	7	200				
-03	8	200				
01-0700-01	9	200				
-03	10	200				
-05	11	200				
01-0743-04	12	200				
-05	13	30				
01-0732-01	14	100				
-03	15	30				
01-0743-07	16	200				
-08	17	30				
01-0767-01RS	18	200				
-02MS	19	200				
-03MSD	20	200				
DUP: 01-0743-02	DP1	30				
DUP: 01-0743-08	DP2	30				

ANALYST: Holly Zeed DATE/TIME: (on) 1/31/12

DATE/TIME: (off)

DATE/TIME: (off)

DATE/TIME: (off)

* Duplicate required on 10% of samples

DCN#89767

Microbac Laboratories Inc.
GRAVIMETRIC REPORT

Workgroup (AAB#): WG388360
Analyst: HJR
Analyte: TOTAL SUSPENDED SOLIDS
Balance: BAL004
Instrument: OVEN

Method: 160.2/SM2540D
SOP: K1602 Revison 13
Spike Solution: STD49834
Daily Dilution:

SAMPLE NUMBER	#	INITIAL VOL	INITIAL WT	DRY WT A	DRY WT B	DRY WT C	Anal. Conc	Rep. Conc.	Units
WG388360-01	BLK	200	0.0942	0.094	0.0941		-0.5000	-0.5000	mg/L
WG388360-02	LCS	100	0.099	0.1044	0.1042		52.00	52.00	mg/L
WG388360-03	LCS2	100	0.1007	0.1055	0.1057		50.00	50.00	mg/L
L12010724-01	1	200	0.0984	0.0997	0.0993		4.500	4.500	mg/L
L12010724-03	2	200	0.0977	0.0985	0.098		1.500	ND	mg/L
L12010724-05	3	200	0.0966	0.0969	0.0967		0.5000	ND	mg/L
L12010724-07	4	200	0.0964	0.0972	0.0967		1.500	ND	mg/L
L12010743-01	5	200	0.1017	0.1111	0.1108		45.50	45.50	mg/L
L12010743-02	6	30	0.0951	0.1055	0.1053		340.0	340.0	mg/L
WG388360-04	6	30	0.0951	0.1055	0.1053		340.0	340.0	mg/L
L12010698-01	7	200	0.1009	0.1014	0.1012		1.500	ND	mg/L
L12010698-03	8	200	0.097	0.1004	0.1003		16.50	16.50	mg/L
L12010700-01	9	200	0.0971	0.0975	0.0974		1.500	ND	mg/L
L12010700-03	10	200	0.0964	0.0969	0.0969		2.500	ND	mg/L
L12010700-05	11	200	0.0971	0.0984	0.0982		5.500	5.500	mg/L
L12010743-04	12	200	0.0994	0.1024	0.1022		14.00	14.00	mg/L
L12010743-05	13	30	0.0987	0.1063	0.106		243.3	243.3	mg/L
L12010732-01	14	100	0.0999	0.1017	0.1015		16.00	16.00	mg/L
L12010732-03	15	30	0.0981	0.1108	0.1106		416.7	416.7	mg/L
L12010743-07	16	200	0.1001	0.1069	0.1068		33.50	33.50	mg/L
L12010743-08	17	30	0.099	0.1063	0.1062		240.0	240.0	mg/L
WG388360-06	17	30	0.099	0.1063	0.1062		240.0	240.0	mg/L
L12010767-01	18	200	0.1022	0.1024	0.1024		1.000	ND	mg/L
WG388360-08	18	200	0.1022	0.1024	0.1024		1.000	1.000	mg/L
L12010767-02	19	200	0.101	0.1058	0.1062		26.00	26.00	mg/L
WG388360-09	19	200	0.101	0.1058	0.1062		26.00	26.00	mg/L
L12010767-03	20	200	0.0993	0.104	0.1045		26.00	26.00	mg/L
WG388360-10	20	200	0.0993	0.104	0.1045		26.00	26.00	mg/L
WG388360-05	DUP1	30	0.0981	0.1085	0.1084		343.3	343.3	mg/L
WG388360-07	DUP2	30	0.0972	0.1045	0.1043		236.7	236.7	mg/L

L12010767-02	ms=200ml of sample to 100ml of lcs
L12010767-03	msd=200ml of sample to 100ml of lcs
WG388360-09	ms=200ml of sample to 100ml of lcs
WG388360-10	msd=200ml of sample to 100ml of lcs

Analyst: HJR

*Duplicate required on 10% of samples

CONT_GRAV_REPORT - Modified 02/18/2011
PDF ID: 2294390
Report generated: 02/02/2012 09:23

Microbac Laboratories Inc.
GRAVIMETRIC REPORT

Date/Time (on) :01/31/2012 10:46
Date/Time (off):02/01/2012 15:45
Date/Time (off):02/02/2012 09:20
Date/Time (off):

Analyte:
Balance:
Instrument:

CONT_GRAV_REPORT - Modified 02/18/2011
PDF ID: 2294390
Report generated: 02/02/2012 09:23

3.0 Attachments

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
February 10, 2012

ADC - ANTHONY D. CANTER	AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN
ALV - AMY L. VALENTINE	AML - TONY M. LONG	AZH - AFTER HOURS
BLG - BRENDA L. GREENWALT	BRG - BRENDA R. GREGORY	CAA - CASSIE A. AUGENSTEIN
CAF - CHERYL A. FLOWERS	CEB - CHAD E. BARNES	CLC - CHRYS L. CRAWFORD
CLS - CARA L. STRICKLER	CLW - CHARISSA L. WINTERS	CPD - CHAD P. DAVIS
CS - CODY M. STRAHLER	CSH - CHRIS S. HILL	DDE - DEBRA D. ELLIOTT
DEV - DAVID E. VANDENBERG	DGB - DOUGLAS G. BUTCHER	DHG - DEBORAH H. GRIFFITHS
DIH - DEANNA I. HESSON	DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH	DSM - DAVID S. MOSSOR	ECL - ERIC C. LAWSON
EDL - ERIN D. LONG	ERP - ERIN R. PORTER	FJB - FRANCES J. BOLDEN
HAV - HEMA VILASAGAR	HJR - HOLLY J. REED	JAL - JOHN A. LENT
JBK - JEREMY B. KINNEY	JDH - JUSTIN D. HESSON	JKS - JANE K. SCHAAD
JLL - JOHN L. LENT	JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES
JYH - JI Y. HU	KEB - KATIE E. BARNES	KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON	LKN - LINDA K. NEDEFF	LSB - LESLIE S. BUCINA
MDA - MIKE D. ALBERTSON	MDC - MIKE D. COCHRAN	MES - MARY E. SCHILLING
MMB - MAREN M. BEERY	MRT - MICHELLE R. TAYLOR	MSW - MATT S. WILSON
PDM - PIERCE D. MORRIS	PWD - PAUL W. DENT	RAH - ROY A. HALSTEAD
REK - BOB E. KYER	RLB - BOB BUCHANAN	RLK - ROBIN L. KLINGER
RWC - RODNEY W. CAMPBELL	SJP - SUZANNE J. PAUGH	SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF	TIP - TAE I. PARRISH	TMB - TIFFANY M. BAILEY
TMM - TAMMY M. MORRIS	VC - VICKI COLLIER	WJB - WILL J. BEASLEY
WTD - WADE T. DELONG		

Microbac Laboratories Inc.
List of Valid Qualifiers
February 10, 2012

Qualkey: DOD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	The reported result is associated with a contaminated method blank.
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration; sample matrix interference.
J	Estimated value ; the analyte concentration was greater than the highest standard
J	Estimated value ; the analyte concentration was less than the LOQ.
J	The reported result is an estimated value.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Nontarget analyte; the analyte is a tentativlely identified compound (TIC) by GC/MS
NA	Not applicable
ND	Not detected at or above the reporting limit (RL).
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Analyte was not detected. The concentration is below the reported LOD.
UJ	Undetected; the analyte was analyzed for, but not detected.
UQ	Undetected; the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

*****Special Notes for Organic Analytes**

Qualkey: DOD

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.

L12010767 / Revision: 0 / 1081 total pages

COC No. A 28479

158 Starlite Drive
Marietta, OH 45750

Microbac

CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: Zia/Shaw

Project Contact: Mark Lyon

Contact Phone #: 505-262-8920

Turn Around Requirements: Normal

Location: WSMR

Project ID: STP

Sampler (print): Bradley T. Davis

Signature: [signature]

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other _____

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	Anions	Cond. pH, PO4	Alkalinity	Total, Free, Amenable CN	Metals	NH3 TOC NO3NO2	TSS TDS								TOTAL # (LAB USE)	ADDITIONAL REQUIREMENTS
MPL 21-0112-1		X	1-27-12	1445	W	7		X	X	X	X	X	X	X									
MPL 21-0112-MS		X	1-27-12	1445	W	7		X	X	X	X	X	X	X									
MPL21-0112-MSD		X	1-27-12	1445	W	7		X	X	X	X	X	X	X									

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	1-27-12	1700					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)				

Microbac OVD
Received: 01/28/2012 08:46
By: JOCK SHEAVES
221000021962
[signature]

Remarks:

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Page _____ of _____

Generated: 02/10/2012 16:21

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L12010767
Account: 3005
Project: 3005.011
Samples: 3
Due Date: 10-FEB-2012

Samplenum	Container ID	Products
L12010767-01	932473	300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	WET	30-JAN-2012 10:06	RLK		
2	STORE	WET	A1	03-FEB-2012 11:24	RLK	JBK	

Samplenum	Container ID	Products
L12010767-01	932474	ALK ALK-B ALK-C

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	31-JAN-2012 08:15	DIH	RLK	
3	STORE	WET	A1	02-FEB-2012 07:37	AZH	DIH	

Samplenum	Container ID	Products
L12010767-01	932475	COND COR-PH PO4

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	30-JAN-2012 11:32	DLP	RLK	
3	STORE	WET	A1	08-FEB-2012 08:07	JKS	DLP	

Samplenum	Container ID	Products
L12010767-01	932476	TDS TSS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	31-JAN-2012 08:55	HJR	RLK	
3	STORE	WET	A1	01-FEB-2012 14:59	RLK	HJR	

Samplenum	Container ID	Products
L12010767-01	932477	NH3 NO3NO2 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		<2
2	ANALYZ	W1	WET	30-JAN-2012 11:32	DLP	RLK	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L12010767
Account: 3005
Project: 3005.011
Samples: 3
Due Date: 10-FEB-2012

Samplenum	Container ID	Products
L12010767-01	932478	AG-MS AS-MS BA-MS BE-AX CA CD-MS CO-MS CR-MS (

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	DIG	30-JAN-2012 13:49	ERP	JKS	
3	STORE	DIG	A1	01-FEB-2012 14:35	RLK	ERP	

Samplenum	Container ID	Products
L12010767-01	932479	CN CN-A CN-WD

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	30-JAN-2012 11:32	DLP	RLK	

Samplenum	Container ID	Products
L12010767-02	932480	300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	31-JAN-2012 10:30	JBK	RLK	
3	STORE	SEM	A1	03-FEB-2012 11:19	RLK	JBK	

Samplenum	Container ID	Products
L12010767-02	932481	ALK ALK-B ALK-C

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	31-JAN-2012 08:15	DIH	RLK	
3	STORE	WET	A1	02-FEB-2012 07:37	AZH	DIH	

Samplenum	Container ID	Products
L12010767-02	932482	COND COR-PH PO4

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	30-JAN-2012 11:32	DLP	RLK	
3	STORE	WET	A1	08-FEB-2012 08:07	JKS	DLP	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L12010767
Account: 3005
Project: 3005.011
Samples: 3
Due Date: 10-FEB-2012

Samplenum	Container ID	Products
L12010767-02	932483	TDS TSS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	31-JAN-2012 08:55	HJR	RLK	
3	STORE	WET	A1	01-FEB-2012 14:59	RLK	HJR	

Samplenum	Container ID	Products
L12010767-02	932484	NH3 NO3NO2 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		<2
2	ANALYZ	W1	WET	30-JAN-2012 11:32	DLP	RLK	

Samplenum	Container ID	Products
L12010767-02	932485	AG-MS AS-MS BA-MS BE-AX CA CD-MS CO-MS CR-MS (

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	DIG	30-JAN-2012 13:49	ERP	JKS	
3	STORE	DIG	A1	01-FEB-2012 14:35	RLK	ERP	

Samplenum	Container ID	Products
L12010767-02	932486	CN CN-A CN-WD

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	30-JAN-2012 11:32	DLP	RLK	

Samplenum	Container ID	Products
L12010767-03	932487	300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	31-JAN-2012 10:30	JBK	RLK	
3	STORE	SEM	A1	03-FEB-2012 11:19	RLK	JBK	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L12010767
Account: 3005
Project: 3005.011
Samples: 3
Due Date: 10-FEB-2012

Samplenum	Container ID	Products
L12010767-03	932488	ALK ALK-B ALK-C

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	31-JAN-2012 08:15	DIH	RLK	
3	STORE	WET	A1	02-FEB-2012 07:37	AZH	DIH	

Samplenum	Container ID	Products
L12010767-03	932489	COND COR-PH PO4

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	30-JAN-2012 11:32	DLP	RLK	
3	STORE	WET	A1	08-FEB-2012 08:07	JKS	DLP	

Samplenum	Container ID	Products
L12010767-03	932490	TDS TSS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	31-JAN-2012 08:55	HJR	RLK	
3	STORE	WET	A1	01-FEB-2012 14:59	RLK	HJR	

Samplenum	Container ID	Products
L12010767-03	932491	NH3 NO3NO2 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		<2
2	ANALYZ	W1	WET	30-JAN-2012 11:32	DLP	RLK	

Samplenum	Container ID	Products
L12010767-03	932492	AG-MS AS-MS BA-MS BE-AX CA CD-MS CO-MS CR-MS (

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	DIG	30-JAN-2012 13:49	ERP	JKS	
3	STORE	DIG	A1	01-FEB-2012 14:35	RLK	ERP	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Internal Chain of Custody Report

Login: L12010767
Account: 3005
Project: 3005.011
Samples: 3
Due Date: 10-FEB-2012

Samplenum	Container ID	Products
L12010767-03	932493	CN CN-A CN-WD

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-JAN-2012 10:06	RLK		
2	ANALYZ	W1	WET	30-JAN-2012 11:32	DLP	RLK	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
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W1 - Walkin Cooler in Login