Microbac

Laboratory Report Number: L12010798

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:
Stephanie Mossburg – Team Chemist/Data Specialist
(740) 373-4071
Stephanie.Mossburg@microbac.com

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 #: L12010798
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 #
0016139	H	0.0		1002239554510004575000874824307348

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

Microbac Laboratories ● Ohio Valley Division
158 Starlite Drive, Marietta, OH 45750 ● T: (740)373-4071 F: (740)373-4835
www.microbac.com

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Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
MPL22-0112-1	L12010798-01	01/30/2012 11:55	01/31/2012 10:17

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Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL22-0112-1	**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 10:47
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	T2.020712.104720
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	22.2		0.200	0.100
Magnesium, Total	7439-95-4	2.34		0.500	0.250
Manganese, Total	7439-96-5		U	0.0100	0.00500
Potassium, Total	7440-09-7	1.81		1.00	0.500
Sodium, Total	7440-23-5	19.6		0.500	0.250
Tin, Total	7440-31-5		U	0.500	0.250
Vanadium, Total	7440-62-2	0.0189		0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.0100

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

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	ELAN-ICP
Client ID:	MPL22-0112-1	**Prep Method:**	3015	**Prep Date:**	02/01/2012 07:16
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	02/01/2012 12:44
Workgroup #:	WG388495	**Analyst:**	JYH	**Run Date:**	02/01/2012 20:09
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	EL.020112.200945
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	0.00722		0.00100	0.000500
Barium, Total	7440-39-3	0.0824		0.00300	0.00150
Cadmium, Total	7440-43-9		U	0.000600	0.000300
Chromium, Total	7440-47-3	0.00133	J	0.00200	0.00100
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Copper, Total	7440-50-8		U	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	0.00203		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 #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL22-0112-1	**Prep Method:**	7470A	**Prep Date:**	02/02/2012 12:44
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/03/2012 08:58
Workgroup #:	WG388619	**Analyst:**	PDM	**Run Date:**	02/03/2012 09:35
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	HY.020312.093536
Sample Tag:	01	**Units:**	mg/L		

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL22-0112-1	**Prep Method:**	7470A	**Prep Date:**	02/07/2012 09:31
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/08/2012 08:28
Workgroup #:	WG389023	**Analyst:**	PDM	**Run Date:**	02/08/2012 08:54
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	HY.020812.085448
Sample Tag:	02	**Units:**	mg/L		

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL22-0112-1	**Prep Method:**	7470A	**Prep Date:**	02/07/2012 09:31
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/08/2012 11:40
Workgroup #:	WG389023	**Analyst:**	PDM	**Run Date:**	02/08/2012 12:05
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	HY.020812.120502
Sample Tag:	03	**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 #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL22-0112-1	**Prep Method:**	300.0	**Prep Date:**	02/03/2012 13:04
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	12/21/2011 13:49
Workgroup #:	WG388787	**Analyst:**	JBK	**Run Date:**	02/03/2012 14:54
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	I20203121454.09
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	13.2		0.200	0.100
Fluoride	16984-48-8	0.387		0.200	0.100
Sulfate	14808-79-8	29.1		1.00	0.500

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	ORION-4STAR
Client ID:	MPL22-0112-1	**Prep Method:**	9040C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9040C	**Cal Date:**	
Workgroup #:	WG388428	**Analyst:**	DLP	**Run Date:**	01/31/2012 16:07
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	OS12020114021001
Sample Tag:		**Units:**	UNITS		

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	8.12		0.000	0.000

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL22-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	02/03/2012 11:29
Workgroup #:	WG388663	**Analyst:**	DIH	**Run Date:**	02/03/2012 11:43
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	SC120203002.030
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)		67.6		20.0	10.0

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL22-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	02/03/2012 11:29
Workgroup #:	WG388663	**Analyst:**	DIH	**Run Date:**	02/03/2012 11:43
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	SC120203002.030
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Bicarbonate (as CaCO3)		67.6		20.0	10.0

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL22-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	02/03/2012 11:29
Workgroup #:	WG388663	**Analyst:**	DIH	**Run Date:**	02/03/2012 11:43
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	SC120203002.030
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 #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL22-0112-1	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	02/08/2012 08:25
Workgroup #:	WG388947	**Analyst:**	JBK	**Run Date:**	02/08/2012 08:40
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	1V.1202080840-07
Sample Tag:	wd	**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.				

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL22-0112-1	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	02/03/2012 13:25
Workgroup #:	WG388634	**Analyst:**	JBK	**Run Date:**	02/03/2012 13:30
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	1V.1202031330-06
Sample Tag:		**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 #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL22-0112-1	**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:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	1V.1202031410-09
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 #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	YSI-32
Client ID:	MPL22-0112-1	**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:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	32.1202061430-06
Sample Tag:		**Units:**	umhos/cm		

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		242		1.00	0.500

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL22-0112-1	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	02/01/2012 08:52
Workgroup #:	WG388451	**Analyst:**	DIH	**Run Date:**	02/01/2012 09:08
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	SC120201001.024
Sample Tag:	01	**Units:**	mg/L		

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

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

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL22-0112-1	**Prep Method:**	353.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	353.2	**Cal Date:**	02/03/2012 13:00
Workgroup #:	WG388788	**Analyst:**	DIH	**Run Date:**	02/06/2012 09:16
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	SC12020614494101
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		1.09		0.0500	0.0250

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL22-0112-1	**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 #:	WG388496	**Analyst:**	HJR	**Run Date:**	02/01/2012 10:45
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	1V.1202011045-05
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 #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL22-0112-1	**Prep Method:**	160.1/SM2540C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.1	**Cal Date:**	
Workgroup #:	WG388589	**Analyst:**	HJR	**Run Date:**	02/02/2012 14:40
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	EN.1202021440-04
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		124		20.0	10.0

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	MPL22-0112-1	**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 15:12
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	TC02012012.024
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon		1.03		1.00	0.500

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL22-0112-1	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.2	**Cal Date:**	
Workgroup #:	WG388543	**Analyst:**	HJR	**Run Date:**	02/01/2012 15:15
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	EN.1202011515-20
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids		6.00		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: L12010798
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: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 41835
Approved By: Sheri Pfalzgraf

Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL22-0112-1	**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 10:47
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	T2.020712.104720
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	22.2		0.200	0.100
Magnesium, Total	7439-95-4	2.34		0.500	0.250
Manganese, Total	7439-96-5		U	0.0100	0.00500
Potassium, Total	7440-09-7	1.81		1.00	0.500
Sodium, Total	7440-23-5	19.6		0.500	0.250
Tin, Total	7440-31-5		U	0.500	0.250
Vanadium, Total	7440-62-2	0.0189		0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.0100

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

Certificate of Analysis

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: 2295506
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

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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
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

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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
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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Microbac

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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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
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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Maren Berry

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: L12010798

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
MPL22-0112-1	01	01/30/12					02/01/12	1.8	180		02/07/12	8	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2300681
Report generated 02/07/2012 12:44

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
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
MPL22-0112-1	L12010798-01	T2.020712.104720	02/07/12 10:47	01

Report Name: BLANK_SUMMARY
PDF File ID: 2300682
Report generated 02/07/2012 12:44

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 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: 2300683
07-FEB-2012 12:44

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 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#: STD48461 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	
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: 2300684
Report generated: 02/07/2012 12:44

Microbac Laboratories Inc.
MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L12010798 Cal ID: ICP-THERMO2 - Worknum: WG388487
Instrument ID: ICP-THERMO2 Contract #: Method: 6010B
Parent ID: WG388441-01 File ID: T2.020712.103731 Dil: 1 Matrix: WATER
Sample ID: WG388441-04 MS File ID: T2.020712.104051 Dil: 1 Units: mg/L
Sample ID: WG388441-05 MSD File ID: T2.020712.104406 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Beryllium, Total	ND	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	68.0	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	ND	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	
Vanadium, Total	0.00833	0.500	0.507	99.8	0.500	0.483	95.0	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

NOTE: This is an internal quality control sample.

WG_MS_MSD_DRYWT - Modified 05/26/2011
PDF File ID: 2300685
Report generated 02/07/2012 12:44

Microbac Laboratories Inc.
Serial Dilution Report

Login: L12010798 **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: 2300679
02/07/2012 12:44

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L12010798 **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: 2300680
Report generated: 02/07/2012 12:44

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	**L12010798**	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: 2300688
Report generated: 07-FEB-2012 12:44

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L12010798
Instrument ID: ICP-THERMO2
File ID: T2.020712.090150
Workgroup (AAB#): WG388487
Matrix: WATER

Run Date: 02/07/2012
Run Time: 09:01
Analyst: EDL
Cal ID: ICP-THERI - 07-FEB-12

Sample ID: WG388943-07
Method: 6010B
Units: mg/L

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: 2300690
Report generated 02/07/2012 12:44

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010798
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: 2300694
Report generated 02/07/2012 12:44

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010798
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: 2300694
Report generated 02/07/2012 12:44

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010798
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: 2300694
Report generated 02/07/2012 12:44

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)

(Alternate Source)

Login Number: L12010798 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: 2300689

Report generated 02/07/2012 12:44

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010798
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: 2300693
Report generated 02/07/2012 12:44

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010798
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: 2300693
Report generated 02/07/2012 12:44

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010798
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: 2300693
Report generated 02/07/2012 12:44

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L12010798
Instrument ID: ICP-THERMO2
Sol. A : WG388943-09 **File ID:** T2.020712.090842
Sol. AB : WG388943-10 **File ID:** T2.020712.092647

Workgroup (AAB#): WG388487
Method: 6010B
Units: mg/L
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: 2300691
Report generated 02/07/2012 12:44

LRC SAMPLE

Login Number: L12010798
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: 2300774
Report generated 02/07/2012 13:19

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12010798 **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: 2300687
Report generated: 02/07/2012 12:44

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12010798 **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: 2300687
Report generated: 02/07/2012 12:44

INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12010798 **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: 2300687
Report generated: 02/07/2012 12:44

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12010798 **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: 2300687
Report generated: 02/07/2012 12:44

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12010798 **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: 2300687
Report generated: 02/07/2012 12:44

Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L12010798 **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: 2300686
Report generated: 02/07/2012 12:44

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

Erin D. Long

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

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

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	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

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

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	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

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	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

Erin D. Long

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

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

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	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

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

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

Erin D. Long

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

Erin D. Long

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

Erin D. Long

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				

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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	

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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

Erin D. Long

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

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

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
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	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

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

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

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

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

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	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

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

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	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

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	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

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

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

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

Erin D. Long

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

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

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

Erin D. Long

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

Erin D. Long

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

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	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

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

Erin D. Long

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

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	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

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

Erin D. Long

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

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

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

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

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

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

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

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

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	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

Erin D. Long

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

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

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

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:

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

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

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

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

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

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

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:

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

Erin D. Long

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

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

Erin D. Long

2.1.2 Metals ICP-MS Data

2.1.2.1 Summary Data

Login Number: L12010798
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: WG388495 - The continuing calibration blank bracketing the interference check solutions analyzed on 01-FEB-2012 at 13:38 yielded a result for thallium of 0.0649 mg/L which exceeded the LOD. However, the CCB did not bracket any batch QA/QC or client samples and so no further action was taken.

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: WG388495 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 41645
Approved By: Sheri Pfalzgraf

Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	ELAN-ICP
Client ID:	MPL22-0112-1	**Prep Method:**	3015	**Prep Date:**	02/01/2012 07:16
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	02/01/2012 12:44
Workgroup #:	WG388495	**Analyst:**	JYH	**Run Date:**	02/01/2012 20:09
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	EL.020112.200945
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	0.00722		0.00100	0.000500
Barium, Total	7440-39-3	0.0824		0.00300	0.00150
Cadmium, Total	7440-43-9		U	0.000600	0.000300
Chromium, Total	7440-47-3	0.00133	J	0.00200	0.00100
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Copper, Total	7440-50-8		U	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	0.00203		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

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: WG388449
Analyst: REK
Spike Analyst: REK
Run Date: 02/01/2012 07:16
Method: 3015
Balance: BAL016
Instrument: MW-2

SOP: ME407 Revison 12
Spike Solution: STD47574
Spike Witness: VC
Digestion Tubes Lot #: COA15882
HNO3 Lot #: COA15925
MS FILTERS- WG375661 Lot COA15665

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG388449-03	BLANK	1	40 mL	100 mL	207.135 g	207.119 g		
2	WG388449-04	LCS	1	40 mL	100 mL	206.228 g	206.211 g	.25 mL	
3	L12010798-01	SAMP	1	40 mL	100 mL	207.389 g	207.369 g		02/10/12
4	WG388449-01	REF	2	40 mL	100 mL	206.016 g	206.002 g		
5	L12010808-05	SAMP	2	40 mL	100 mL	206.016 g	206.002 g		02/07/12
6	L12010809-01	SAMP	1	40 mL	100 mL	206.812 g	206.799 g		02/10/12
7	WG388449-02	REF	1	40 mL	100 mL	207.214 g	207.196 g		
8	L12010821-02	RS02	1	40 mL	100 mL	207.214 g	207.196 g		02/14/12
9	WG388449-07	MS	1	40 mL	100 mL	208.724 g	208.711 g	.25 mL	
10	L12010821-05	MS02	1	40 mL	100 mL	208.724 g	208.711 g	.25 mL	02/14/12
11	WG388449-08	MSD	1	40 mL	100 mL	208.609 g	208.591 g	.25 mL	
12	L12010821-08	SD02	1	40 mL	100 mL	208.609 g	208.591 g	.25 mL	02/14/12
13	L12010821-11	SAMP	1	40 mL	100 mL	207.393 g	207.375 g		02/14/12
14	L12010821-14	SAMP	1	40 mL	100 mL	209.068 g	209.053 g		02/14/12
15	L12010821-17	SAMP	1	40 mL	100 mL	205.791 g	205.769 g		02/14/12
16	L12010821-20	SAMP	1	40 mL	100 mL	207.723 g	207.719 g		02/14/12
17	L12010821-23	SAMP	1	40 mL	100 mL	210.234 g	210.22 g		02/14/12
18	WG388449-05	DUP	1	40 mL	100 mL	206.076 g	206.063 g		
19	WG388449-06	MS	1	40 mL	100 mL	206.168 g	206.164 g	.25 mL	

WG388449-06	FILTERED DIGESTATE
L12010808-05	FILTERED DIGESTATE
WG388449-01	FILTERED DIGESTATE
WG388449-05	FILTERED DIGESTATE

Analyst: [signature]

Reviewer: [signature]

MW_DIG - Modified 09/30/2009
PDF ID: 2295310
Report generated: 02/01/2012 08:29

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ELAN-ICP Dataset: 020112B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020 SOP: ME700 Rev: 7
Maintenance Log ID: 40495

Calibration Std: STD49730 ICV Std: STD49511 Post Spike: STD47984
ICSA: STD49577 ICSAB: STD49578 Int. Std: STD49729
CCV: STD49677 LLCCV: STD49510

Workgroups: 388429,388491,388495

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	EL.020112.121420	Blank	Blank		1		02/01/12 12:14
2	EL.020112.122156	WG388576-01	Calibration Point		1		02/01/12 12:21
3	EL.020112.122932	WG388576-02	Calibration Point		1		02/01/12 12:29
4	EL.020112.123708	WG388576-03	Calibration Point		1		02/01/12 12:37
5	EL.020112.124446	WG388576-04	Calibration Point		1		02/01/12 12:44
6	EL.020112.125222	WG388576-05	Initial Calibration Verification		1		02/01/12 12:52
7	EL.020112.125958	WG388576-06	Initial Calib Blank		1		02/01/12 12:59
8	EL.020112.130736	WG388576-07	Low Level Initial Calibration V		1		02/01/12 13:07
9	EL.020112.131515	WG388576-08	Interference Check		1		02/01/12 13:15
10	EL.020112.132254	WG388576-09	Interference Check		1		02/01/12 13:22
11	EL.020112.133033	WG388576-10	CCV		1		02/01/12 13:30
12	EL.020112.133810	WG388576-11	CCB		1		02/01/12 13:38
13	EL.020112.134620	Sample	Sample		1		02/01/12 13:46
14	EL.020112.135227	WG388576-12	CCV		1		02/01/12 13:52
15	EL.020112.140003	WG388576-13	CCB		1		02/01/12 14:00
16	EL.020112.140738	WG388352-02	Method/Prep Blank	5/50	1		02/01/12 14:07
17	EL.020112.141525	WG388323-01	TCLP Fluid Blank 1		1		02/01/12 14:15
18	EL.020112.142312	WG388323-02	TCLP Fluid Blank 2		1		02/01/12 14:23
19	EL.020112.143059	WG388352-03	Laboratory Control S	5/50	20		02/01/12 14:30
20	EL.020112.143847	WG388352-01	Reference Sample		20	L12010769-01	02/01/12 14:38
21	EL.020112.144635	WG388352-04	Matrix Spike	5/50	20	L12010769-01	02/01/12 14:46
22	EL.020112.145423	WG388352-05	Matrix Spike Duplica	5/50	20	L12010769-01	02/01/12 14:54
23	EL.020112.150212	L12010775-01	ALAN BLUE	5/50	20		02/01/12 15:02
24	EL.020112.150959	WG388429-01	Post Digestion Spike		20	L12010775-01	02/01/12 15:09
25	EL.020112.151746	WG388429-02	Serial Dilution		100	L12010775-01	02/01/12 15:17
26	EL.020112.152534	WG388576-14	CCV		1		02/01/12 15:25
27	EL.020112.153310	WG388576-15	CCB		1		02/01/12 15:33
28	EL.020112.154502	WG388442-02	Method/Prep Blank	.5/200	1		02/01/12 15:45
29	EL.020112.155249	WG388442-03	Laboratory Control S	.5/200	1		02/01/12 15:52
30	EL.020112.160035	WG388442-01	Reference Sample		5	L12010795-19	02/01/12 16:00
31	EL.020112.160925	WG388442-04	Matrix Spike	.503/200	5	L12010795-19	02/01/12 16:09
32	EL.020112.161713	WG388442-05	Matrix Spike Duplica	.503/200	5	L12010795-19	02/01/12 16:17
33	EL.020112.162501	L12010763-08	D077-540	.5/200	5		02/01/12 16:25
34	EL.020112.163248	L12010795-01	1115-606-C-001	.538/200	5		02/01/12 16:32

Page: 1 Approved: February 02, 2012

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ELAN-ICP Dataset: 020112B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020 SOP: ME700 Rev: 7
Maintenance Log ID: 40495

Calibration Std: STD49730 ICV Std: STD49511 Post Spike: STD47984
ICSA: STD49577 ICSAB: STD49578 Int. Std: STD49729
CCV: STD49677 LLCCV: STD49510

Workgroups: 388429,388491,388495

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	EL.020112.164036	WG388491-01	Post Digestion Spike		5	L12010795-01	02/01/12 16:40
36	EL.020112.164824	WG388491-02	Serial Dilution		25	L12010795-01	02/01/12 16:48
37	EL.020112.165613	WG388576-22	CCV		1		02/01/12 16:56
38	EL.020112.170350	WG388576-23	CCB		1		02/01/12 17:03
39	EL.020112.171126	L12010795-02	1115-606-C-002	.532/200	5		02/01/12 17:11
40	EL.020112.171915	L12010795-03	1115-606-C-003	.54/200	5		02/01/12 17:19
41	EL.020112.172703	L12010795-04	1115-606-C-003-QC	.512/200	5		02/01/12 17:27
42	EL.020112.173448	L12010795-05	1115-606-C-004	.51/200	5		02/01/12 17:34
43	EL.020112.174234	L12010795-06	1115-686-C-001	.522/200	5		02/01/12 17:42
44	EL.020112.175020	L12010795-07	1115-686-C-001-QC	.515/200	5		02/01/12 17:50
45	EL.020112.175807	L12010795-08	1115-686-C-002	.53/200	5		02/01/12 17:58
46	EL.020112.180553	L12010795-09	1115-686-C-003	.523/200	5		02/01/12 18:05
47	EL.020112.181340	L12010795-10	1115-686-C-004	.543/200	5		02/01/12 18:13
48	EL.020112.182128	L12010795-11	1115-686-C-005	.534/200	5		02/01/12 18:21
49	EL.020112.182916	WG388576-24	CCV		1		02/01/12 18:29
50	EL.020112.183652	WG388576-25	CCB		1		02/01/12 18:36
51	EL.020112.184429	L12010795-12	1115-686-C-006	.531/200	5		02/01/12 18:44
52	EL.020112.185217	L12010795-13	1115-686-C-007	.517/200	5		02/01/12 18:52
53	EL.020112.190005	L12010795-14	1115-686-C-008	.538/200	5		02/01/12 19:00
54	EL.020112.190753	L12010795-15	1115-686-C-009	.55/200	5		02/01/12 19:07
55	EL.020112.191541	L12010795-16	1115-686-C-010	.504/200	5		02/01/12 19:15
56	EL.020112.192326	L12010795-17	1115-686-C-011	.5/200	5		02/01/12 19:23
57	EL.020112.193112	L12010795-18	1115-686-C-012	.547/200	5		02/01/12 19:31
58	EL.020112.193859	WG388576-26	CCV		1		02/01/12 19:38
59	EL.020112.194636	WG388576-27	CCB		1		02/01/12 19:46
60	EL.020112.195412	WG388449-03	Method/Prep Blank	40/100	1		02/01/12 19:54
61	EL.020112.200158	WG388449-04	Laboratory Control S	40/100	1		02/01/12 20:01
62	EL.020112.200945	L12010798-01	MPL22-0112-1	40/100	1		02/01/12 20:09
63	EL.020112.201732	L12010821-02	SW1A-269-14		1	WG388449-02	02/01/12 20:17
64	EL.020112.202519	L12010821-05	SW1A-269-14	40/100	1	WG388449-07	02/01/12 20:25
65	EL.020112.203307	L12010821-08	SW1A-269-14	40/100	1	WG388449-08	02/01/12 20:33
66	EL.020112.204055	L12010821-11	SW2A-269-14	40/100	1		02/01/12 20:40
67	EL.020112.204843	WG388495-01	Post Digestion Spike		1	L12010821-11	02/01/12 20:48
68	EL.020112.205631	WG388495-02	Serial Dilution		5	L12010821-11	02/01/12 20:56

Page: 2 Approved: February 02, 2012

Marcia Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ELAN-ICP
Dataset: 020112B.REP
Analyst1: JYH
Analyst2: N/A
Method: 6020
SOP: ME700
Rev: 7
Maintenance Log ID: 40495

Calibration Std: STD49730
ICV Std: STD49511
Post Spike: STD47984
ICSA: STD49577
ICSAB: STD49578
Int. Std: STD49729
CCV: STD49677
LLCCV: STD49510

Workgroups: 388429,388491,388495

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	EL.020112.210420	WG388576-28	CCV		1		02/01/12 21:04
70	EL.020112.211157	WG388576-29	CCB		1		02/01/12 21:11
71	EL.020112.211932	L12010808-05	CITY DISCHARGE		5	WG388449-01	02/01/12 21:19
72	EL.020112.212718	WG388449-05	Duplicate	40/100	5	L12010808-05	02/01/12 21:27
73	EL.020112.213504	WG388449-06	Matrix Spike	40/100	5	L12010808-05	02/01/12 21:35
74	EL.020112.214251	L12010809-01	8911 U	40/100	1		02/01/12 21:42
75	EL.020112.215037	L12010821-14	SW2B-269-14	40/100	1		02/01/12 21:50
76	EL.020112.215824	L12010821-17	SW3A-269-14	40/100	1		02/01/12 21:58
77	EL.020112.220611	L12010821-20	SW4A-269-14	40/100	1		02/01/12 22:06
78	EL.020112.221358	L12010821-23	SW5A-269-14	40/100	1		02/01/12 22:13
79	EL.020112.222146	WG388576-30	CCV		1		02/01/12 22:21
80	EL.020112.222923	WG388576-31	CCB		1		02/01/12 22:29

Page: 3 Approved: February 02, 2012

Maren Berry

Microbac Laboratories Inc.

Data Checklist

Date: 01-FEB-2012
Analyst: JYH
Analyst: NA
Method: 6020
Instrument: ELAN-ICP
Curve Workgroup: 388576
Runlog ID: 44948
Analytical Workgroups: 388429,388491,388495

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	775,763,795,798
Client Forms	X
Level X	
Level 3	
Level 4	763,795,798
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	MMB
Comments	

Primary Reviewer:

Secondary Reviewer:
02-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-02-2012 15:07:13

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6020 AAB#: WG388495

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12					02/01/12	1.8	180		02/01/12	2.3	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2296476
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
Blank File ID: EL.020112.195412
Prep Date: 02/01/12 07:16
Analyzed Date: 02/01/12 19:54
Analyst: JYH

Work Group: WG388495
Blank Sample ID: WG388449-03
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	WG388449-04	EL.020112.200158	02/01/12 20:01	01
MPL22-0112-1	L12010798-01	EL.020112.200945	02/01/12 20:09	01
DUP	WG388449-05	EL.020112.212718	02/01/12 21:27	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 2296491
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 Prep Date: 02/01/12 07:16 Sample ID: WG388449-03
Instrument ID: ELAN-ICP Run Date: 02/01/12 19:54 Prep Method: 3015
File ID: EL.020112.195412 Analyst: JYH Method: 6020
Workgroup (AAB#): WG388495 Matrix: Water Units: mg/L
Contract #: Cal ID: ELAN-I-01-FEB-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: 2296492
02-FEB-2012 09:15

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Run Date: 02/01/2012 Sample ID: WG388449-04
Instrument ID: ELAN-ICP Run Time: 20:01 Prep Method: 3015
File ID: EL.020112.200158 Analyst: JYH Method: 6020
Workgroup (AAB#): WG388495 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD47574 Cal ID: ELAN-I-01-FEB-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Antimony, Total	0.0625	0.0692	111	80 - 120	
Arsenic, Total	0.0625	0.0622	99.5	80 - 120	
Barium, Total	0.0625	0.0698	112	80 - 120	
Cadmium, Total	0.0625	0.0706	113	80 - 120	
Chromium, Total	0.0625	0.0623	99.7	80 - 120	
Cobalt, Total	0.0625	0.0636	102	80 - 120	
Copper, Total	0.0625	0.0654	105	80 - 120	
Lead, Total	0.0625	0.0703	113	80 - 120	
Nickel, Total	0.0625	0.0648	104	80 - 120	
Selenium, Total	0.0625	0.0624	99.9	80 - 120	
Silver, Total	0.0625	0.0686	110	80 - 120	
Thallium, Total	0.0625	0.0699	112	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2296493
Report generated: 02/02/2012 09:15

Microbac Laboratories Inc.
MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L12010798 Cal ID: ELAN-ICP- Worknum: WG388495
Instrument ID: ELAN-ICP Contract #: Method: 6020
Parent ID: WG388449-02 File ID: EL.020112.201732 Dil: 1 Matrix: WATER
Sample ID: WG388449-07 MS File ID: EL.020112.202519 Dil: 1 Units: mg/L
Sample ID: WG388449-08 MSD File ID: EL.020112.203307 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Antimony	ND	0.0625	0.0588	94.1	0.0625	0.0597	95.4	1.38	80 - 120	20	
Arsenic	ND	0.0625	0.0595	95.2	0.0625	0.0591	94.6	0.587	80 - 120	20	
Barium	0.00989	0.0625	0.0734	102	0.0625	0.0740	103	0.777	80 - 120	20	
Cadmium	ND	0.0625	0.0600	96.1	0.0625	0.0598	95.6	0.463	80 - 120	20	
Chromium	ND	0.0625	0.0646	103	0.0625	0.0644	103	0.328	80 - 120	20	
Cobalt	ND	0.0625	0.0656	105	0.0625	0.0633	101	3.53	80 - 120	20	
Copper	ND	0.0625	0.0655	105	0.0625	0.0641	103	2.22	80 - 120	20	
Lead	ND	0.0625	0.0647	103	0.0625	0.0634	101	2.02	80 - 120	20	
Nickel	ND	0.0625	0.0650	104	0.0625	0.0650	104	0.0339	80 - 120	20	
Selenium	ND	0.0625	0.0548	87.7	0.0625	0.0572	91.6	4.28	80 - 120	20	
Silver	ND	0.0625	0.0635	102	0.0625	0.0639	102	0.529	80 - 120	20	
Thallium	ND	0.0625	0.0631	101	0.0625	0.0620	99.1	1.81	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

WG_MS_MSD_DRYWT - Modified 05/26/2011
PDF File ID: 2296494
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.
Serial Dilution Report

Login: L12010798 **Worknum:** WG388495
Instrument: ELAN-ICP **Method:** 6020
Serial Dil: WG388495-02 **File ID:** EL.020112.205631 **Dil:** 5 **Units:** ug/L
Sample: L12010821-11 **File ID:** EL.020112.204055 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Antimony	ND	U	ND	U		
Arsenic	ND	U	ND	U		
Barium	3.84	X	3.70	F	3.80	
Cadmium	ND	U	ND	U		
Chromium	0.401	F	ND	U		
Cobalt	ND	U	ND	U		
Copper	ND	U	ND	U		
Lead	ND	U	ND	U		
Nickel	ND	U	ND	U		
Selenium	ND	U	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: 2296489
02/02/2012 09:15

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L12010798 **Worknum:** WG388495
Instrument ID: ELAN-ICP **Method:** 6020
Post Spike ID: WG388495-01 **File ID:** EL.020112.204843 **Dil:** 1 **Units:** ug/L
Sample ID: L12010821-11 **File ID:** EL.020112.204055 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ANTIMONY	48.4		0	U	50	96.8	75 - 125	
ARSENIC	46.4		0	U	50	92.9	75 - 125	
BARIUM	53.0		3.84		50	98.3	75 - 125	
CADMIUM	47.6		0	U	50	95.2	75 - 125	
CHROMIUM	51.2		0.401	F	50	101.6	75 - 125	
COBALT	50.9		0	U	50	101.8	75 - 125	
COPPER	52.2		0	U	50	104.3	75 - 125	
LEAD	50.0		0	U	50	100.1	75 - 125	
NICKEL	51.1		0	U	50	102.2	75 - 125	
SELENIUM	43.2		0	U	50	86.4	75 - 125	
SILVER	51.3		0	U	50	102.5	75 - 125	
THALLIUM	49.1		0	U	50	98.3	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: 2296490
Report generated: 02/02/2012 09:15

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	L12010798	Workgroup (AAB#):	WG388495
Analytical Method:	6020	Instrument ID:	ELAN-ICP
ICAL Worknum:	WG388576	Initial Calibration Date:	01-FEB-2012 12:44

	WG388576-01		WG388576-02		WG388576-03		WG388576-04			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ANTIMONY	0	13.8	.4	1320	50	156000	100	318000	.999913	
ARSENIC	0	-133	.4	196	50	42500	100	85100	.999997	
BARIUM	0	36.0	.4	545	50	59900	100	120000	.999996	
CADMIUM	0	2.12	.4	414	50	48400	100	94800	.999961	
CHROMIUM	0	5770	.4	8120	50	280000	100	547000	.999991	
COBALT	0	63.0	.4	2920	50	328000	100	663000	.999968	
COPPER	0	104	.4	663	50	65600	100	130000	1	
LEAD	0	785	.4	7890	50	849000	100	1690000	.999904	
NICKEL	0	26.3	.4	624	50	68400	100	136000	.999999	
SELENIUM	0	-4.44	.4	28.8	50	3990	100	7880	.999993	
SILVER	0	63.3	.4	1870	50	208000	100	418000	.999985	
THALLIUM	0	31.3	.4	2080	50	251000	100	497000	.999946	

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: 2296482
Report generated: 02-FEB-2012 09:15

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L12010798
Run Date: 02/01/2012
Sample ID: WG388576-06
Instrument ID: ELAN-ICP
Run Time: 12:59
Method: 6020
File ID: EL.020112.125958
Analyst: JYH
Units: ug/L
Workgroup (AAB#): WG388495
Cal ID: ELAN-ICP - 01-FEB-12
Matrix: WATER

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: 2296484
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010798
Run Date: 02/01/2012
Sample ID: WG388576-11
Instrument ID: ELAN-ICP
Run Time: 13:38
Method: 6020
File ID: EL.020112.133810
Analyst: JYH
Units: ug/L
Workgroup (AAB#): WG388495
Cal ID: ELAN-I - 01-FEB-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	0.0649	F

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: 2296487
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010798
Run Date: 02/01/2012
Sample ID: WG388576-27
Instrument ID: ELAN-ICP
Run Time: 19:46
Method: 6020
File ID: EL.020112.194636
Analyst: JYH
Units: ug/L
Workgroup (AAB#): WG388495
Cal ID: ELAN-I - 01-FEB-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: 2296487
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010798
Run Date: 02/01/2012
Sample ID: WG388576-29
Instrument ID: ELAN-ICP
Run Time: 21:11
Method: 6020
File ID: EL.020112.211157
Analyst: JYH
Units: ug/L
Workgroup (AAB#): WG388495
Cal ID: ELAN-I - 01-FEB-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: 2296487
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L12010798 Run Date: 02/01/2012 Sample ID: WG388576-05
Instrument ID: ELAN-ICP Run Time: 12:52 Method: 6020
File ID: EL.020112.125222 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG388495 Cal ID: ELAN-I - 01-FEB-12
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Antimony		50	49.2	98.4	90 - 110	
Arsenic		50	49.4	98.9	90 - 110	
Barium		50	49.2	98.4	90 - 110	
Cadmium		50	49.5	99.0	90 - 110	
Chromium		50	49.9	99.8	90 - 110	
Cobalt		50	49.9	99.9	90 - 110	
Copper		50	50.0	100	90 - 110	
Lead		50	49.7	99.4	90 - 110	
Nickel		50	49.3	98.5	90 - 110	
Selenium		50	48.7	97.5	90 - 110	
Silver		50	49.9	99.8	90 - 110	
Thallium		50	49.4	98.7	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2296483
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010798
Run Date: 02/01/2012
Sample ID: WG388576-10
Instrument ID: ELAN-ICP
Run Time: 13:30
Method: 6020
File ID: EL.020112.133033
Analyst: JYH
QC Key: DOD4
Workgroup (AAB#): WG388495
Cal ID: ELAN-I - 01-FEB-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		50.0	49.5	ug/L	99.0	90 - 110		
Arsenic		50.0	49.4	ug/L	98.8	90 - 110		
Barium		50.0	49.3	ug/L	98.5	90 - 110		
Cadmium		50.0	49.9	ug/L	99.7	90 - 110		
Chromium		50.0	49.3	ug/L	98.6	90 - 110		
Cobalt		50.0	49.5	ug/L	99.1	90 - 110		
Copper		50.0	50.5	ug/L	101	90 - 110		
Lead		50.0	49.9	ug/L	99.8	90 - 110		
Nickel		50.0	49.3	ug/L	98.6	90 - 110		
Selenium		50.0	49.6	ug/L	99.2	90 - 110		
Silver		50.0	50.4	ug/L	101	90 - 110		
Thallium		50.0	49.4	ug/L	98.9	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2296486
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010798
Run Date: 02/01/2012
Sample ID: WG388576-26
Instrument ID: ELAN-ICP
Run Time: 19:38
Method: 6020
File ID: EL.020112.193859
Analyst: JYH
QC Key: DOD4
Workgroup (AAB#): WG388495
Cal ID: ELAN-I - 01-FEB-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		50.0	47.9	ug/L	95.9	90 - 110		
Arsenic		50.0	50.3	ug/L	101	90 - 110		
Barium		50.0	50.1	ug/L	100	90 - 110		
Cadmium		50.0	48.3	ug/L	96.6	90 - 110		
Chromium		50.0	49.7	ug/L	99.3	90 - 110		
Cobalt		50.0	51.3	ug/L	103	90 - 110		
Copper		50.0	50.7	ug/L	101	90 - 110		
Lead		50.0	48.9	ug/L	97.8	90 - 110		
Nickel		50.0	51.1	ug/L	102	90 - 110		
Selenium		50.0	50.9	ug/L	102	90 - 110		
Silver		50.0	50.0	ug/L	100	90 - 110		
Thallium		50.0	49.1	ug/L	98.2	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2296486
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010798
Run Date: 02/01/2012
Sample ID: WG388576-28
Instrument ID: ELAN-ICP
Run Time: 21:04
Method: 6020
File ID: EL.020112.210420
Analyst: JYH
QC Key: DOD4
Workgroup (AAB#): WG388495
Cal ID: ELAN-I - 01-FEB-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		50.0	49.4	ug/L	98.8	90 - 110		
Arsenic		50.0	48.5	ug/L	97.0	90 - 110		
Barium		50.0	50.2	ug/L	100	90 - 110		
Cadmium		50.0	49.3	ug/L	98.7	90 - 110		
Chromium		50.0	48.9	ug/L	97.8	90 - 110		
Cobalt		50.0	49.5	ug/L	99.0	90 - 110		
Copper		50.0	50.4	ug/L	101	90 - 110		
Lead		50.0	49.1	ug/L	98.1	90 - 110		
Nickel		50.0	49.3	ug/L	98.7	90 - 110		
Selenium		50.0	49.2	ug/L	98.5	90 - 110		
Silver		50.0	50.9	ug/L	102	90 - 110		
Thallium		50.0	48.9	ug/L	97.7	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2296486
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.
LOW LEVEL CALIBRATION VERIFICATION

Login Number: L12010798
Run Date: 02/01/2012
Sample ID: WG388576-07
Instrument ID: ELAN-ICP
Run Time: 13:07
Method: 6020
File ID: EL.020112.130736
Analyst: JYH
QC Key: DOD4
Workgroup (AAB#): WG388495
Cal ID: ELAN-I - 01-FEB-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Cadmium		0.200	0.188	ug/L	93.9	80 - 120		
Thallium		0.0800	0.0836	ug/L	105	80 - 120		

* Exceeds LIMITS Criteria

LLCCV - Modified 1/7/2010
PDF File ID: 2296496
Report generated 02/09/2012 10:31

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L12010798
Instrument ID: ELAN-ICP
Sol. A : WG388576-08 **File ID:** EL.020112.131515
Sol. AB : WG388576-09 **File ID:** EL.020112.132254

Workgroup (AAB#): WG388495
Method: 6020
Units: ug/L
Matrix: Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Antimony	NS	0.0308	NS	100	116	116	
Arsenic	NS	0.0200	NS	100	111	111	
Barium	NS	-0.00100	NS	100	110	110	
Cadmium	NS	0.0806	NS	100	115	115	
Chromium	NS	0.629	NS	100	108	108	
Cobalt	NS	-0.00920	NS	100	108	108	
Copper	NS	0.129	NS	100	111	111	
Lead	NS	0.00390	NS	100	111	111	
Nickel	NS	0.385	NS	100	108	108	
Selenium	NS	0.129	NS	100	109	109	
Silver	NS	-0.0247	NS	100	115	115	
Thallium	NS	0.00170	NS	100	107	107	

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: 2296485
Report generated 02/02/2012 09:15

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L12010798 **Analytical Method:** 6020
Analytical Workgroup: WG388495 **Matrix:** 1
Instrument: ELAN-ICP **Analyst:** JYH
ICAL Date: 01-FEB-2012 12:21

			BISMUTH	GERMANIUM	INDIUM	TERBIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec	% Rec
L12010798-01	SAMP	01-FEB-2012 20:09	101.413	101.41	100.122	103.483
L12010821-11	SAMP	01-FEB-2012 20:40	99.73	96.19	95.449	98.442
WG388449-03	BLANK	01-FEB-2012 19:54	98.523	100.672	99.251	100.236
WG388449-04	LCS	01-FEB-2012 20:01	95.697	108.526	95.391	96.641
WG388495-01	PSPK	01-FEB-2012 20:48	94.597	91.995	91.176	94.498
WG388495-02	SERIAL	01-FEB-2012 20:56	94.352	93.636	91.966	92.729
WG388576-05	ICV	01-FEB-2012 12:52	98.56	101.022	100.969	101.64
WG388576-06	ICB	01-FEB-2012 12:59	98.697	100.489	100.219	101.097
WG388576-07	LLICV	01-FEB-2012 13:07	97.074	98.714	97.42	98.596
WG388576-08	ICS	01-FEB-2012 13:15	96.099	94.915	94.631	95.134
WG388576-09	ICS	01-FEB-2012 13:22	94.784	88.988	84.487	89.206
WG388576-10	CCV	01-FEB-2012 13:30	96.74	98.244	97.045	98.642
WG388576-11	CCB	01-FEB-2012 13:38	95.856	97.329	96.427	98.21
WG388576-26	CCV	01-FEB-2012 19:38	96.664	95.688	97.104	97.722
WG388576-27	CCB	01-FEB-2012 19:46	98.958	99.118	98.425	98.898
WG388576-28	CCV	01-FEB-2012 21:04	94.098	93.705	92.477	93.458
WG388576-29	CCB	01-FEB-2012 21:11	98.985	97.634	97.241	98.784

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: 2296495
Report generated: 02/02/2012 09:15

Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L12010798 **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: 2296481
Report generated: 02/02/2012 09:15

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: Wednesday, February 01, 2012 09:51:25

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.028	610	2060	0.640	
Li	7.016	7.029	1592	2060	0.655	
Co	58.933	58.928	14281	1970	0.711	
Ce	139.905	139.879	33987	2020	0.707	
Tl	204.975	204.976	49690	2263	0.706	

Relative Std. Dev.

Mass	Meas. Intens. RSD
2.000	3.171
3.000	1.099
4.000	25.289
5.000	31.746
6.000	4.203
7.000	4.577
8.000	26.621
9.000	1.740
58.000	1.985
59.000	1.256
60.000	4.556
139.000	4.206
140.000	1.763
141.000	6.527
204.000	2.389
205.000	1.473
206.000	1.702

Report Date/Time: Wednesday, February 01, 2012 09:52:37
Page 1

Approved: February 02, 2012

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, February 01, 2012 09:55:28
Sample Description:
Method File: C:\Elandata\Method\6020 DAILY.mth
Dataset File: C:\elandata\Dataset\Default\Sample.768
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	53361.3	53361.325	709.906	1.3
	Rh	102.9	285260.2	285260.217	2444.422	0.9
	In	114.9	530685.6	530685.647	4406.203	0.8
	Pb	208.0	175705.5	175705.533	1549.590	0.9
	U	238.1	75.9	75.900	13.890	18.3
⌈>	Ba	137.9	280441.4	280441.411	3303.783	1.2
⌊	Ba++	69.0	4680.4	0.017	0.000	0.9
⌈>	Ce	139.9	346000.8	346000.825	2196.636	0.6
⌊	CeO	155.9	8396.0	0.024	0.001	2.9
	Bkgd	220.0	9.5	9.500	2.449	25.8
	Ar2	79.9	5399732.7	5399732.652	32565.579	0.6

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: Wednesday, February 01, 2012 09:57:36
Page 1

Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: Blank

Sample Date/Time: Wednesday, February 01, 2012 12:14:20
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	9221.829					ug/L
	Be	9	8.667					ug/L
	Al	27	1816.868					ug/L
>	Sc	45	136865.939					ug/L
	Ti	49	46.671					ug/L
	V	51	1828.059					ug/L
	Cr	52	5910.155					ug/L
	Cr	53	523.402					ug/L
	Mn	55	254.673					ug/L
	Co	59	61.334					ug/L
	Ni	60	28.334					ug/L
	Cu	65	81.668					ug/L
	Zn	66	78.668					ug/L
>	Ge	72	323164.931					ug/L
	As	75	-154.209					ug/L
	Se	77	60.667					ug/L
	Se	82	3.922					ug/L
	Rb	85	29.667					mg/L
	Y	89	213794.392					ug/L
	Rh	103	13.667					ug/L
	Mo	98	25.973					ug/L
	Ag	107	54.001					ug/L
	Cd	114	1.301					ug/L
>	In	115	293940.590					ug/L
	Sn	118	225.070					ug/L
	Sb	123	20.951					ug/L
	Ba	135	38.667					ug/L
	Ce	140	33.337					ug/L
>	Tb	159	406861.181					ug/L
	Ho	165	6.667					ug/L
	Tl	203	25.334					ug/L
	Tl	205	50.005					ug/L
	Pb	206	193.671					ug/L
	Pb	207	167.003					ug/L
	Pb	208	754.687					ug/L
	U	238	53.334					ug/L
>	Bi	209	324110.611					ug/L

Sample ID: Blank
Report Date/Time: Wednesday, February 01, 2012 12:16:32
Page 1

Approved: February 02, 2012

Na	23	17717.286		mg/L
Mg	24	310.037		mg/L
K	39	477603.291		mg/L
Ca	43	206.690		mg/L
Fe	54	29070.762		mg/L
Fe	57	7153.793		mg/L
Sc-1	45	136865.939		mg/L
Cl	35	22482.287		mg/L
Kr	83	47.334		mg/L
Br	81	6170.287		mg/L
P	31	7939.180		mg/L
S	34	140051.660		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					

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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 1

Sample Date/Time: Wednesday, February 01, 2012 12:21:56
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	9905.902	0.00				ug/L
	Be	9	8.667	-0.00				ug/L
	Al	27	1650.173	-0.00				ug/L
>	Sc	45	138797.549	138797.55				ug/L
	Ti	49	53.339	0.00				ug/L
	V	51	1890.761	0.00				ug/L
	Cr	52	5771.055	-0.00				ug/L
	Cr	53	540.072	0.00				ug/L
	Mn	55	253.673	-0.00				ug/L
	Co	59	63.001	0.00				ug/L
	Ni	60	26.334	-0.00				ug/L
	Cu	65	104.335	0.00				ug/L
	Zn	66	80.335	0.00				ug/L
>	Ge	72	323084.812	323084.81				ug/L
	As	75	-133.379	0.00				ug/L
	Se	77	56.000	-0.00				ug/L
	Se	82	-4.435	-0.00				ug/L
	Rb	85	29.334	-0.00				mg/L
	Y	89	210487.742	-3306.65				ug/L
	Rh	103	16.667	3.00				ug/L
	Mo	98	18.900	-0.00				ug/L
	Ag	107	63.334	0.00				ug/L
	Cd	114	2.117	0.00				ug/L
>	In	115	288432.069	288432.07				ug/L
	Sn	118	222.670	0.00				ug/L
	Sb	123	13.786	-0.00				ug/L
	Ba	135	36.000	-0.00				ug/L
	Ce	140	26.669	-0.00				ug/L
>	Tb	159	403362.358	403362.36				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	31.334	0.00				ug/L
	Tl	205	73.341	0.00				ug/L
	Pb	206	187.004	-0.00				ug/L
	Pb	207	184.004	0.00				ug/L
	Pb	208	785.022	0.00				ug/L
	U	238	64.668	0.00				ug/L
>	Bi	209	319750.413	319750.41				ug/L

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Na	23	18034.638	0.00		mg/L
Mg	24	473.395	0.00		mg/L
K	39	458532.866	-0.18		mg/L
Ca	43	210.024	0.00		mg/L
Fe	54	29522.979	0.00		mg/L
Fe	57	6686.689	-0.00		mg/L
Sc-1	45	138797.549	138797.55		mg/L
Cl	35	20517.904	-1964.38		mg/L
Kr	83	50.001	2.67		mg/L
Br	81	6241.008	70.72		mg/L
P	31	9502.094	1562.91		mg/L
S	34	135305.137	-4746.52		mg/L
Sr	88	36.670	-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					

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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
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Method 6020 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Wednesday, February 01, 2012 12:29:32
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	9171.789	-0.00				ug/L
	Be	9	113.334	0.00				ug/L
	Al	27	2983.875	0.01				ug/L
>	Sc	45	137237.552	137237.55				ug/L
	Ti	49	400.050	0.00				ug/L
	V	51	4435.721	0.01				ug/L
	Cr	52	8121.037	0.01				ug/L
	Cr	53	890.137	0.00				ug/L
	Mn	55	3830.919	0.01				ug/L
	Co	59	2918.874	0.01				ug/L
	Ni	60	624.363	0.00				ug/L
	Cu	65	662.700	0.00				ug/L
	Zn	66	434.016	0.00				ug/L
>	Ge	72	321734.962	321734.96				ug/L
	As	75	196.330	0.00				ug/L
	Se	77	88.000	0.00				ug/L
	Se	82	28.803	0.00				ug/L
	Rb	85	38.667	0.00				mg/L
	Y	89	209092.889	-4701.50				ug/L
	Rh	103	6.667	-7.00				ug/L
	Mo	98	1720.391	0.01				ug/L
	Ag	107	1866.894	0.01				ug/L
	Cd	114	413.819	0.00				ug/L
>	In	115	291104.772	291104.77				ug/L
	Sn	118	1600.554	0.00				ug/L
	Sb	123	1324.154	0.00				ug/L
	Ba	135	545.357	0.00				ug/L
	Ce	140	33.337	0.00				ug/L
>	Tb	159	405805.443	405805.44				ug/L
	Ho	165	0.000	-0.00				ug/L
	Tl	203	2081.281	0.01				ug/L
	Tl	205	5022.017	0.02				ug/L
	Pb	206	1882.565	0.01				ug/L
	Pb	207	1763.871	0.00				ug/L
	Pb	208	7890.892	0.02				ug/L
	U	238	10696.968	0.03				ug/L
>	Bi	209	322313.184	322313.18				ug/L

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Na	23	143649.044	0.92		mg/L
Mg	24	85228.924	0.62		mg/L
K	39	683903.794	1.49		mg/L
Ca	43	653.425	0.00		mg/L
Fe	54	45383.164	0.12		mg/L
Fe	57	14610.940	0.05		mg/L
Sc-1	45	137237.552	137237.55		mg/L
Cl	35	21821.202	-661.09		mg/L
Kr	83	61.001	13.67		mg/L
Br	81	6792.103	621.82		mg/L
P	31	9438.708	1499.53		mg/L
S	34	142900.210	2848.55		mg/L
Sr	88	93.343	36.67		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					
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 2
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Method 6020 - Summary Report

Sample ID: Standard 3

Sample Date/Time: Wednesday, February 01, 2012 12:37:08
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	9839.178	0.00				ug/L
	Be	9	10935.843	0.08	50.0000	1.197	2.394	ug/L
	Al	27	170766.350	1.20	50.0000	0.916	1.832	ug/L
>	Sc	45	140712.363	140712.36				ug/L
	Ti	49	35160.898	0.11	100.0000	2.766	2.766	ug/L
	V	51	314649.454	0.98	50.0000	0.176	0.352	ug/L
	Cr	52	280451.519	0.86	50.0000	0.586	1.173	ug/L
	Cr	53	32647.099	0.10	50.0000	0.630	1.259	ug/L
	Mn	55	426297.453	1.33	50.0000	0.400	0.800	ug/L
	Co	59	328219.568	1.02	50.0000	0.397	0.793	ug/L
	Ni	60	68428.817	0.21	50.0000	0.314	0.628	ug/L
	Cu	65	65606.902	0.20	50.0000	0.603	1.207	ug/L
	Zn	66	38815.588	0.12	50.0000	0.613	1.226	ug/L
>	Ge	72	320216.324	320216.32				ug/L
	As	75	42495.371	0.13	50.0000	0.323	0.647	ug/L
	Se	77	3257.970	0.01	50.0000	0.556	1.113	ug/L
	Se	82	3991.203	0.01	50.0000	1.450	2.900	ug/L
	Rb	85	1585.167	0.00				mg/L
	Y	89	213807.039	12.65				ug/L
	Rh	103	21.667	8.00				ug/L
	Mo	98	203318.827	0.70	100.0000	0.765	0.765	ug/L
	Ag	107	207532.677	0.71	50.0000	0.916	1.831	ug/L
	Cd	114	48405.482	0.17	50.0000	2.319	4.637	ug/L
>	In	115	290703.718	290703.72				ug/L
	Sn	118	165389.114	0.57	50.0000	1.107	2.215	ug/L
	Sb	123	155643.526	0.54	50.0000	0.480	0.961	ug/L
	Ba	135	59938.080	0.15	50.0000	0.151	0.301	ug/L
	Ce	140	50.005	0.00				ug/L
>	Tb	159	407470.031	407470.03				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	251040.019	0.78	50.0000	0.622	1.244	ug/L
	Tl	205	619336.443	1.93	50.0000	1.430	2.860	ug/L
	Pb	206	201891.447	0.63	50.0000	0.867	1.733	ug/L
	Pb	207	189193.535	0.59	50.0000	1.123	2.246	ug/L
	Pb	208	849495.672	2.65	50.0000	0.671	1.342	ug/L
	U	238	1267072.101	3.96	50.0000	0.646	1.292	ug/L
>	Bi	209	320150.764	320150.76				ug/L

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Na	23	15038090.761	106.73	5.0000	0.023	0.455	mg/L
Mg	24	9572862.542	68.01	5.0000	0.095	1.896	mg/L
K	39	22070655.919	153.49	5.0000	0.185	3.698	mg/L
Ca	43	48824.152	0.35	5.0000	0.226	4.524	mg/L
Fe	54	1899601.935	13.30	5.0000	0.227	4.533	mg/L
Fe	57	855120.334	6.03	5.0000	0.262	5.242	mg/L
Sc-1	45	140712.363	140712.36				mg/L
Cl	35	20700.349	-1781.94				mg/L
Kr	83	56.001	8.67				mg/L
Br	81	6124.254	-46.03				mg/L
P	31	9188.411	1249.23				mg/L
S	34	148021.635	7969.97				mg/L
Sr	88	3537.773	3481.10				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 3
Report Date/Time: Wednesday, February 01, 2012 12:39:21
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Method 6020 - Summary Report

Sample ID: Standard 4

Sample Date/Time: Wednesday, February 01, 2012 12:44:46
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	9455.364	0.00				ug/L
	Be	9	21955.572	0.16	101.9981	5.373	5.268	ug/L
	Al	27	337752.566	2.47	101.3904	3.328	3.283	ug/L
>	Sc	45	136105.398	136105.40				ug/L
	Ti	49	71304.273	0.22	202.1095	4.342	2.148	ug/L
	V	51	624980.601	1.96	100.0783	2.328	2.326	ug/L
	Cr	52	547445.648	1.70	99.5891	1.166	1.171	ug/L
	Cr	53	67405.057	0.21	102.3672	2.877	2.811	ug/L
	Mn	55	867054.946	2.72	101.1343	1.073	1.061	ug/L
	Co	59	663086.092	2.08	100.7978	1.192	1.182	ug/L
	Ni	60	135587.992	0.43	99.8370	0.242	0.242	ug/L
	Cu	65	130141.826	0.41	99.9151	0.492	0.492	ug/L
	Zn	66	77878.410	0.24	100.5113	0.802	0.798	ug/L
>	Ge	72	318443.741	318443.74				ug/L
	As	75	85089.152	0.27	100.2499	1.317	1.313	ug/L
	Se	77	6375.104	0.02	99.6635	0.973	0.977	ug/L
	Se	82	7882.430	0.02	99.6328	1.934	1.941	ug/L
	Rb	85	3159.631	0.01				mg/L
	Y	89	210422.613	-3371.78				ug/L
	Rh	103	36.000	22.33				ug/L
	Mo	98	413647.913	1.43	202.0587	4.390	2.172	ug/L
	Ag	107	418008.101	1.44	100.5405	2.499	2.485	ug/L
	Cd	114	94822.294	0.33	99.1273	1.993	2.010	ug/L
>	In	115	289830.029	289830.03				ug/L
	Sn	118	337076.091	1.16	101.1512	3.008	2.974	ug/L
	Sb	123	318369.385	1.10	101.3059	3.001	2.963	ug/L
	Ba	135	120034.568	0.30	100.2880	1.293	1.289	ug/L
	Ce	140	76.675	0.00				ug/L
>	Tb	159	405912.977	405912.98				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	496739.673	1.60	101.0294	1.207	1.195	ug/L
	Tl	205	1228218.242	3.96	101.1282	0.974	0.963	ug/L
	Pb	206	404269.253	1.30	101.6474	0.596	0.587	ug/L
	Pb	207	376747.725	1.21	101.3680	1.149	1.134	ug/L
	Pb	208	1691656.529	5.45	101.3741	0.891	0.879	ug/L
	U	238	2329313.839	7.51	97.3689	0.347	0.357	ug/L
>	Bi	209	310255.689	310255.69				ug/L

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Na	23	30624319.892	225.18	10.2674	0.527	5.130	mg/L
Mg	24	19038686.359	140.24	10.1553	0.655	6.448	mg/L
K	39	43897231.164	319.65	10.2059	0.466	4.564	mg/L
Ca	43	95018.157	0.70	10.0490	0.482	4.792	mg/L
Fe	54	3790262.671	27.69	10.2025	0.511	5.005	mg/L
Fe	57	1749544.760	12.84	10.3110	0.652	6.323	mg/L
Sc-1	45	136105.398	136105.40				mg/L
Cl	35	20578.717	-1903.57				mg/L
Kr	83	48.667	1.33				mg/L
Br	81	5709.289	-461.00				mg/L
P	31	9151.706	1212.53				mg/L
S	34	142034.521	1982.86				mg/L
Sr	88	6930.241	6873.57				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
Report Date/Time: Wednesday, February 01, 2012 12:46:58
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Method 6020 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Wednesday, February 01, 2012 12:52:22
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	10039.384	0.00				ug/L
	Be	9	10855.070	0.08	47.5376	1.629	3.427	ug/L
	Al	27	164051.587	1.13	46.2774	2.668	5.766	ug/L
>	Sc	45	143949.676	143949.68				ug/L
	Ti	49	36034.706	0.11	99.4463	1.430	1.438	ug/L
	V	51	314150.597	0.96	48.9254	1.006	2.056	ug/L
	Cr	52	284072.875	0.85	49.8760	0.387	0.775	ug/L
	Cr	53	34086.369	0.10	50.0068	1.473	2.946	ug/L
	Mn	55	434276.412	1.33	49.3993	1.183	2.396	ug/L
	Co	59	336839.892	1.03	49.9351	0.757	1.517	ug/L
	Ni	60	68637.257	0.21	49.2679	0.415	0.843	ug/L
	Cu	65	66849.077	0.20	50.0123	0.372	0.744	ug/L
	Zn	66	39684.344	0.12	49.8934	1.329	2.665	ug/L
>	Ge	72	326466.741	326466.74				ug/L
	As	75	42932.478	0.13	49.4253	0.276	0.558	ug/L
	Se	77	3390.691	0.01	51.2187	2.168	4.233	ug/L
	Se	82	3950.854	0.01	48.7371	0.698	1.432	ug/L
	Rb	85	1576.498	0.00				mg/L
	Y	89	209532.279	-4262.11				ug/L
	Rh	103	25.000	11.33				ug/L
	Mo	98	205566.032	0.69	98.0188	1.647	1.680	ug/L
	Ag	107	212692.916	0.72	49.9159	0.925	1.853	ug/L
	Cd	114	48497.293	0.16	49.4938	1.905	3.849	ug/L
>	In	115	296790.327	296790.33				ug/L
	Sn	118	168107.789	0.57	49.2077	0.899	1.827	ug/L
	Sb	123	158375.101	0.53	49.1891	1.238	2.517	ug/L
	Ba	135	60033.187	0.15	49.1967	1.154	2.346	ug/L
	Ce	140	60.006	0.00				ug/L
>	Tb	159	413532.046	413532.05				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	249810.072	0.78	49.3587	1.369	2.773	ug/L
	Tl	205	631309.461	1.98	50.5062	1.768	3.500	ug/L
	Pb	206	205333.125	0.64	50.1304	1.390	2.772	ug/L
	Pb	207	189936.172	0.59	49.6254	1.763	3.553	ug/L
	Pb	208	854144.046	2.67	49.7034	1.604	3.227	ug/L
	U	238	1294639.318	4.05	52.5523	0.554	1.053	ug/L
>	Bi	209	319444.856	319444.86				ug/L

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Na	23	15119685.544	104.94	4.7840	0.183	3.828	mg/L
Mg	24	9708069.351	67.45	4.8815	0.173	3.536	mg/L
K	39	22626617.454	153.77	4.9057	0.186	3.790	mg/L
Ca	43	48237.368	0.33	4.8001	0.105	2.196	mg/L
Fe	54	1973348.792	13.50	4.9720	0.146	2.933	mg/L
Fe	57	875108.026	6.03	4.8422	0.186	3.850	mg/L
Sc-1	45	143949.676	143949.68				mg/L
Cl	35	20548.645	-1933.64				mg/L
Kr	83	55.334	8.00				mg/L
Br	81	6111.577	-58.71				mg/L
P	31	9277.166	1337.99				mg/L
S	34	144272.521	4220.86				mg/L
Sr	88	3437.719	3381.05				mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9	95.075				
Al	27	92.555				
Sc	45					
Ti	49	99.446				
V	51	97.851				
Cr	52	99.752				
Cr	53					
Mn	55	98.799				
Co	59	99.870				
Ni	60	98.536				
Cu	65	100.025				
Zn	66	99.787				
Ge	72		101.022			
As	75	98.851				
Se	77					
Se	82	97.474				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	99.832				
Cd	114	98.988				
In	115		100.969			
Sn	118					
Sb	123	98.378				
Ba	135	98.393				
Ce	140					
Tb	159		101.640			
Ho	165					
Tl	203	98.717				
Tl	205					
Pb	206					
Pb	207					
Pb	208	99.407				
U	238	105.105				
Bi	209		98.560			

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⌈	Na	23	95.680
|	Mg	24	97.631
|	K	39	98.114
|	Ca	43	96.003
|	Fe	54	99.439
|	Fe	57	96.844
⌊>	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: Wednesday, February 01, 2012 12:59:58
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	9805.873	0.00				ug/L
	Be	9	6.667	-0.00	-0.0926	0.018	19.659	ug/L
	Al	27	2000.243	0.00	0.0792	0.065	82.417	ug/L
>	Sc	45	143712.155	143712.15				ug/L
	Ti	49	46.672	-0.00	-0.1947	0.083	42.726	ug/L
	V	51	1816.528	-0.00	-0.0192	0.013	70.020	ug/L
	Cr	52	6042.584	0.00	0.0118	0.037	312.048	ug/L
	Cr	53	526.736	0.00	-0.1550	0.175	112.752	ug/L
	Mn	55	270.340	0.00	-0.0116	0.000	2.482	ug/L
	Co	59	93.335	0.00	-0.0256	0.004	15.855	ug/L
	Ni	60	39.667	0.00	-0.0268	0.009	34.183	ug/L
	Cu	65	99.335	0.00	-0.0294	0.005	17.122	ug/L
	Zn	66	84.668	0.00	-0.0476	0.025	51.602	ug/L
>	Ge	72	324746.743	324746.74				ug/L
	As	75	-142.001	0.00	0.0076	0.013	168.235	ug/L
	Se	77	63.334	0.00	0.0014	0.078	5357.689	ug/L
	Se	82	2.183	-0.00	0.0657	0.099	150.111	ug/L
	Rb	85	28.000	-0.00				mg/L
	Y	89	213498.486	-295.91				ug/L
	Rh	103	14.667	1.00				ug/L
	Mo	98	99.828	0.00	0.0114	0.006	49.134	ug/L
	Ag	107	86.335	0.00	-0.0267	0.004	14.968	ug/L
	Cd	114	7.510	0.00	-0.0231	0.009	39.168	ug/L
>	In	115	294583.164	294583.16				ug/L
	Sn	118	297.339	0.00	0.0095	0.005	49.306	ug/L
	Sb	123	48.203	0.00	-0.0043	0.002	56.837	ug/L
	Ba	135	37.334	-0.00	-0.0252	0.003	10.530	ug/L
	Ce	140	36.670	0.00				ug/L
>	Tb	159	411323.716	411323.72				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	49.667	0.00	0.0022	0.005	216.309	ug/L
	Tl	205	163.351	0.00	0.0149	0.005	30.457	ug/L
	Pb	206	237.672	0.00	0.0021	0.005	238.067	ug/L
	Pb	207	203.005	0.00	-0.0041	0.010	251.855	ug/L
	Pb	208	939.364	0.00	-0.0008	0.004	528.674	ug/L
	U	238	141.336	0.00	-0.0249	0.003	13.853	ug/L
>	Bi	209	319889.000	319889.00				ug/L

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Na	23	18462.503	-0.00	-0.0019	0.001	44.588	mg/L
Mg	24	1043.521	0.01	-0.0045	0.000	7.690	mg/L
K	39	438975.636	-0.43	-0.0216	0.001	3.137	mg/L
Ca	43	206.690	-0.00	-0.0079	0.007	95.334	mg/L
Fe	54	30314.885	-0.00	-0.0041	0.002	53.838	mg/L
Fe	57	7013.656	-0.00	-0.0063	0.001	21.037	mg/L
Sc-1	45	143712.155	143712.15				mg/L
Cl	35	19256.892	-3225.40				mg/L
Kr	83	55.667	8.33				mg/L
Br	81	6151.607	-18.68				mg/L
P	31	9004.874	1065.69				mg/L
S	34	131936.016	-8115.64				mg/L
Sr	88	33.337	-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		100.489			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		100.219			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		101.097			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		98.697			

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: Wednesday, February 01, 2012 13:02:10
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Method 6020 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Wednesday, February 01, 2012 13:07:36
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	9071.607	-0.00				ug/L
	Be	9	9.333	0.00	-0.0810	0.025	30.963	ug/L
	Al	27	2550.403	0.00	0.2364	0.156	66.053	ug/L
>	Sc	45	143644.281	143644.28				ug/L
	Ti	49	43.338	-0.00	-0.2014	0.044	21.683	ug/L
	V	51	4349.173	0.01	0.3920	0.013	3.230	ug/L
	Cr	52	10164.297	0.01	0.7875	0.017	2.210	ug/L
	Cr	53	1166.866	0.00	0.8368	0.292	34.849	ug/L
	Mn	55	4797.762	0.01	0.5164	0.013	2.470	ug/L
	Co	59	2835.178	0.01	0.3910	0.014	3.551	ug/L
	Ni	60	2352.356	0.01	1.6747	0.057	3.427	ug/L
	Cu	65	1181.429	0.00	0.8021	0.038	4.745	ug/L
	Zn	66	5099.278	0.02	6.4251	0.095	1.474	ug/L
>	Ge	72	319010.544	319010.54				ug/L
	As	75	221.569	0.00	0.4315	0.043	9.920	ug/L
	Se	77	83.334	0.00	0.3348	0.133	39.801	ug/L
	Se	82	40.888	0.00	0.5549	0.175	31.614	ug/L
	Rb	85	29.334	0.00				mg/L
	Y	89	210828.004	-2966.39				ug/L
	Rh	103	7.667	-6.00				ug/L
	Mo	98	45.900	0.00	-0.0139	0.003	23.704	ug/L
	Ag	107	1798.879	0.01	0.3910	0.019	4.857	ug/L
	Cd	114	206.350	0.00	0.1877	0.028	14.816	ug/L
>	In	115	286355.492	286355.49				ug/L
	Sn	118	263.204	0.00	0.0016	0.002	133.501	ug/L
	Sb	123	1293.566	0.00	0.3972	0.012	3.088	ug/L
	Ba	135	954.064	0.00	0.7515	0.051	6.742	ug/L
	Ce	140	20.002	-0.00				ug/L
>	Tb	159	401150.263	401150.26				ug/L
	Ho	165	3.334	-0.00				ug/L
	Tl	203	454.350	0.00	0.0836	0.012	13.859	ug/L
	Tl	205	1203.541	0.00	0.0996	0.004	3.915	ug/L
	Pb	206	1870.895	0.01	0.4082	0.006	1.515	ug/L
	Pb	207	1696.523	0.00	0.3933	0.006	1.400	ug/L
	Pb	208	7676.139	0.02	0.3984	0.006	1.380	ug/L
	U	238	10229.377	0.03	0.3912	0.007	1.709	ug/L
>	Bi	209	314625.783	314625.78				ug/L

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Na	23	14246.952	-0.03	-0.0032	0.000	6.403	mg/L
Mg	24	756.781	0.00	-0.0046	0.000	3.593	mg/L
K	39	428920.486	-0.50	-0.0238	0.001	3.855	mg/L
Ca	43	220.025	0.00	-0.0064	0.004	66.849	mg/L
Fe	54	29693.298	-0.01	-0.0056	0.004	63.837	mg/L
Fe	57	6066.149	-0.01	-0.0116	0.001	6.027	mg/L
Sc-1	45	143644.281	143644.28				mg/L
Cl	35	18742.387	-3739.90				mg/L
Kr	83	51.334	4.00				mg/L
Br	81	5794.015	-376.27				mg/L
P	31	7648.176	-291.00				mg/L
S	34	119101.291	-20950.37				mg/L
Sr	88	50.005	-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	97.993				
Cr	52	98.434				
Cr	53					
Mn	55	103.278				
Co	59	97.743				
Ni	60	104.670				
Cu	65	100.256				
Zn	66	102.801				
Ge	72		98.714			
As	75	107.886				
Se	77					
Se	82	138.726				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	97.748				
Cd	114	93.838				
In	115		97.420			
Sn	118					
Sb	123	99.307				
Ba	135	100.200				
Ce	140					
Tb	159		98.596			
Ho	165					
Tl	203	104.446				
Tl	205					
Pb	206					
Pb	207					
Pb	208	99.610				
U	238	97.790				
Bi	209		97.074			

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
QC Std 3	Se	82	LLICV IS OUT OF LIMITS (+/-20%)

Sample ID: QC Std 3
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Method 6020 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Wednesday, February 01, 2012 13:15:15
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	10172.919	0.01				ug/L
	Be	9	11.333	0.00	-0.0695	0.006	8.712	ug/L
	Al	27	14739494.143	107.90	4426.2712	91.273	2.062	ug/L
>	Sc	45	136610.839	136610.84				ug/L
	Ti	49	36911.938	0.12	108.4664	2.199	2.028	ug/L
	V	51	2458.349	0.00	0.1047	0.031	29.279	ug/L
	Cr	52	8940.217	0.01	0.6287	0.049	7.858	ug/L
	Cr	53	1336.909	0.00	1.1805	0.360	30.455	ug/L
	Mn	55	1460.476	0.00	0.1344	0.004	2.619	ug/L
	Co	59	191.337	0.00	-0.0092	0.002	22.670	ug/L
	Ni	60	576.026	0.00	0.3853	0.002	0.541	ug/L
	Cu	65	292.675	0.00	0.1291	0.018	14.111	ug/L
	Zn	66	346.011	0.00	0.3095	0.009	2.897	ug/L
>	Ge	72	306733.407	306733.41				ug/L
	As	75	-123.570	0.00	0.0200	0.083	417.371	ug/L
	Se	77	123.334	0.00	1.0413	0.248	23.780	ug/L
	Se	82	6.902	0.00	0.1289	0.152	118.116	ug/L
	Rb	85	1641.845	0.01				mg/L
	Y	89	203317.135	-10477.26				ug/L
	Rh	103	16.000	2.33				ug/L
	Mo	98	217876.521	0.78	110.8559	1.795	1.619	ug/L
	Ag	107	89.668	0.00	-0.0247	0.004	16.450	ug/L
	Cd	114	102.301	0.00	0.0806	0.019	23.550	ug/L
>	In	115	278160.020	278160.02				ug/L
	Sn	118	384.942	0.00	0.0421	0.004	9.980	ug/L
	Sb	123	151.453	0.00	0.0308	0.008	26.272	ug/L
	Ba	135	62.668	0.00	-0.0010	0.013	1228.044	ug/L
	Ce	140	510.067	0.00				ug/L
>	Tb	159	387062.854	387062.85				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	45.667	0.00	0.0017	0.002	140.255	ug/L
	Tl	205	70.007	0.00	0.0076	0.002	28.888	ug/L
	Pb	206	251.340	0.00	0.0071	0.002	33.134	ug/L
	Pb	207	218.672	0.00	0.0016	0.002	120.036	ug/L
	Pb	208	994.033	0.00	0.0039	0.003	72.518	ug/L
	U	238	43.001	-0.00	-0.0289	0.000	1.179	ug/L
>	Bi	209	311467.097	311467.10				ug/L

Sample ID: QC Std 4
Report Date/Time: Wednesday, February 01, 2012 13:17:29
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Na	23	39694224.186	290.42	13.2429	0.452	3.415	mg/L
Mg	24	9839430.604	72.01	5.2125	0.172	3.293	mg/L
K	39	23224954.105	166.54	5.3136	0.180	3.379	mg/L
Ca	43	146514.884	1.07	15.4245	0.360	2.332	mg/L
Fe	54	4969124.907	36.16	13.3232	0.395	2.964	mg/L
Fe	57	2020777.029	14.75	11.8462	0.495	4.176	mg/L
Sc-1	45	136610.839	136610.84				mg/L
Cl	35	1464215.312	1441733.02				mg/L
Kr	83	49.667	2.33				mg/L
Br	81	5848.054	-322.23				mg/L
P	31	1172110.047	1164170.87				mg/L
S	34	235572.312	95520.65				mg/L
Sr	88	523.402	466.73				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		94.915			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.631			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		95.134			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.099			

Sample ID: QC Std 4
Report Date/Time: Wednesday, February 01, 2012 13:17:29
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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 4	Cr	52	ICSA IS OUT OF LIMITS (+/-RL)

Sample ID: QC Std 4
Report Date/Time: Wednesday, February 01, 2012 13:17:29
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Method 6020 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Wednesday, February 01, 2012 13:22:54
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	8571.088	0.00				ug/L
	Be	9	22934.205	0.19	121.6526	3.851	3.166	ug/L
	Al	27	13901509.934	116.76	4789.7178	119.740	2.500	ug/L
>	Sc	45	119027.791	119027.79				ug/L
	Ti	49	36466.592	0.13	114.3070	1.002	0.876	ug/L
	V	51	593016.663	2.06	105.1846	1.412	1.342	ug/L
	Cr	52	535798.263	1.84	108.0268	0.710	0.658	ug/L
	Cr	53	101558.878	0.35	171.4310	5.385	3.141	ug/L
	Mn	55	845863.250	2.94	109.2594	0.314	0.287	ug/L
	Co	59	642561.754	2.23	108.1727	1.914	1.770	ug/L
	Ni	60	132249.663	0.46	107.8332	1.548	1.436	ug/L
	Cu	65	130795.814	0.45	111.2047	2.316	2.082	ug/L
	Zn	66	76072.767	0.26	108.7348	0.949	0.873	ug/L
>	Ge	72	287579.480	287579.48				ug/L
	As	75	85298.568	0.30	111.2564	2.571	2.311	ug/L
	Se	77	8748.591	0.03	151.9420	2.067	1.360	ug/L
	Se	82	7776.573	0.03	108.8429	0.516	0.475	ug/L
	Rb	85	1539.491	0.01				mg/L
	Y	89	187137.898	-26656.49				ug/L
	Rh	103	44.667	31.00				ug/L
	Mo	98	207623.211	0.84	118.3233	2.715	2.295	ug/L
	Ag	107	408368.154	1.64	114.5875	0.931	0.813	ug/L
	Cd	114	94622.135	0.38	115.4466	4.653	4.030	ug/L
>	In	115	248341.210	248341.21				ug/L
	Sn	118	1174.084	0.00	0.3329	0.048	14.497	ug/L
	Sb	123	311597.590	1.25	115.6784	1.767	1.528	ug/L
	Ba	135	117634.626	0.32	109.9295	1.663	1.513	ug/L
	Ce	140	526.736	0.00				ug/L
>	Tb	159	362943.634	362943.63				ug/L
	Ho	165	23.336	0.00				ug/L
	Tl	203	521185.687	1.70	107.0764	3.392	3.168	ug/L
	Tl	205	1308386.710	4.26	108.8274	3.532	3.245	ug/L
	Pb	206	449067.872	1.46	114.0462	0.957	0.839	ug/L
	Pb	207	392446.271	1.28	106.6494	0.843	0.790	ug/L
	Pb	208	1833629.134	5.97	110.9871	1.226	1.104	ug/L
	U	238	2597698.991	8.46	109.6822	1.557	1.419	ug/L
>	Bi	209	307206.310	307206.31				ug/L

Sample ID: QC Std 5
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Na	23	37141421.128	311.98	14.2261	0.406	2.857	mg/L
Mg	24	9288928.242	78.07	5.6513	0.173	3.068	mg/L
K	39	21201833.599	174.67	5.5735	0.080	1.427	mg/L
Ca	43	135696.133	1.14	16.4018	0.418	2.548	mg/L
Fe	54	4648157.796	38.84	14.3117	0.102	0.711	mg/L
Fe	57	1932255.301	16.20	13.0107	0.603	4.635	mg/L
Sc-1	45	119027.791	119027.79				mg/L
Cl	35	50505324.462	50482842.17				mg/L
Kr	83	60.001	12.67				mg/L
Br	81	9814.443	3644.16				mg/L
P	31	1087346.811	1079407.63				mg/L
S	34	220610.768	80559.11				mg/L
Sr	88	616.751	560.08				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	105.185				
Cr	52	108.027				
Cr	53					
Mn	55	109.259				
Co	59	108.173				
Ni	60	107.833				
Cu	65	111.205				
Zn	66	108.735				
Ge	72		88.988			
As	75	111.256				
Se	77					
Se	82	108.843				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	114.587				
Cd	114	115.447				
In	115		84.487			
Sn	118					
Sb	123	115.678				
Ba	135	109.929				
Ce	140					
Tb	159		89.206			
Ho	165					
Tl	203	107.076				
Tl	205					
Pb	206					
Pb	207					
Pb	208	110.987				
U	238	109.682				
Bi	209		94.784			

Sample ID: QC Std 5
Report Date/Time: Wednesday, February 01, 2012 13:25:08
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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: Wednesday, February 01, 2012 13:25:08
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 01, 2012 13:30:33
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	8187.384	-0.01				ug/L
	Be	9	10612.760	0.08	49.3339	1.264	2.563	ug/L
	Al	27	172931.819	1.26	51.7593	1.198	2.315	ug/L
>	Sc	45	135732.490	135732.49				ug/L
	Ti	49	35060.473	0.11	99.5247	3.534	3.551	ug/L
	V	51	304204.691	0.95	48.7024	0.700	1.437	ug/L
	Cr	52	273148.292	0.84	49.2997	0.398	0.808	ug/L
	Cr	53	39450.456	0.12	59.7204	2.124	3.557	ug/L
	Mn	55	429249.428	1.35	50.1934	0.630	1.256	ug/L
	Co	59	325010.938	1.02	49.5337	0.877	1.770	ug/L
	Ni	60	66772.894	0.21	49.2839	0.745	1.512	ug/L
	Cu	65	65640.962	0.21	50.4912	0.792	1.568	ug/L
	Zn	66	39206.754	0.12	50.6801	0.577	1.139	ug/L
>	Ge	72	317490.867	317490.87				ug/L
	As	75	41718.401	0.13	49.3840	0.288	0.583	ug/L
	Se	77	3188.611	0.01	49.5239	2.993	6.043	ug/L
	Se	82	3909.233	0.01	49.5815	0.479	0.965	ug/L
	Rb	85	1546.826	0.00				mg/L
	Y	89	205719.845	-8074.55				ug/L
	Rh	103	19.000	5.33				ug/L
	Mo	98	200093.640	0.70	99.2553	0.506	0.509	ug/L
	Ag	107	206307.074	0.72	50.3718	0.568	1.128	ug/L
	Cd	114	46975.658	0.16	49.8610	1.064	2.133	ug/L
>	In	115	285255.507	285255.51				ug/L
	Sn	118	164032.815	0.57	49.9481	0.496	0.993	ug/L
	Sb	123	153168.792	0.54	49.4840	0.829	1.676	ug/L
	Ba	135	58334.431	0.15	49.2584	0.642	1.304	ug/L
	Ce	140	60.006	0.00				ug/L
>	Tb	159	401335.511	401335.51				ug/L
	Ho	165	3.334	-0.00				ug/L
	Tl	203	245702.070	0.78	49.4489	0.829	1.676	ug/L
	Tl	205	615763.890	1.96	50.1782	1.515	3.018	ug/L
	Pb	206	199790.841	0.64	49.6873	0.968	1.947	ug/L
	Pb	207	190005.286	0.61	50.5768	1.288	2.546	ug/L
	Pb	208	841798.022	2.68	49.8960	0.564	1.129	ug/L
	U	238	1278764.250	4.08	52.8839	0.633	1.197	ug/L
>	Bi	209	313543.102	313543.10				ug/L

Sample ID: QC Std 6
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Na	23	14899648.944	109.79	5.0053	0.192	3.827	mg/L
Mg	24	9615849.489	70.90	5.1315	0.100	1.949	mg/L
K	39	22163881.176	160.08	5.1071	0.215	4.210	mg/L
Ca	43	47453.006	0.35	5.0110	0.119	2.366	mg/L
Fe	54	1915483.021	13.91	5.1226	0.128	2.505	mg/L
Fe	57	869206.380	6.36	5.1112	0.265	5.176	mg/L
Sc-1	45	135732.490	135732.49				mg/L
Cl	35	85403.716	62921.43				mg/L
Kr	83	47.334	0.00				mg/L
Br	81	5854.724	-315.56				mg/L
P	31	8458.995	519.81				mg/L
S	34	136603.079	-3448.58				mg/L
Sr	88	3394.366	3337.69				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	97.405				
Cr	52	98.599				
Cr	53					
Mn	55	100.387				
Co	59	99.067				
Ni	60	98.568				
Cu	65	100.982				
Zn	66	101.360				
Ge	72		98.244			
As	75	98.768				
Se	77					
Se	82	99.163				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	100.744				
Cd	114	99.722				
In	115		97.045			
Sn	118					
Sb	123	98.968				
Ba	135	98.517				
Ce	140					
Tb	159		98.642			
Ho	165					
Tl	203	98.898				
Tl	205					
Pb	206					
Pb	207					
Pb	208	99.792				
U	238	105.768				
Bi	209		96.740			

Sample ID: QC Std 6
Report Date/Time: Wednesday, February 01, 2012 13:32:46
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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: Wednesday, February 01, 2012 13:32:46
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 01, 2012 13:38:10
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	8737.914	-0.00				ug/L
	Be	9	6.667	-0.00	-0.0905	0.020	21.761	ug/L
	Al	27	3450.722	0.01	0.5659	0.122	21.513	ug/L
>	Sc	45	133815.900	133815.90				ug/L
	Ti	49	110.012	0.00	-0.0081	0.057	700.826	ug/L
	V	51	1841.236	0.00	-0.0061	0.043	711.143	ug/L
	Cr	52	5927.500	0.00	0.0254	0.019	74.541	ug/L
	Cr	53	4404.953	0.01	5.8870	0.964	16.382	ug/L
	Mn	55	280.008	0.00	-0.0094	0.002	26.096	ug/L
	Co	59	78.668	0.00	-0.0274	0.004	16.024	ug/L
	Ni	60	31.667	0.00	-0.0317	0.002	6.648	ug/L
	Cu	65	105.002	0.00	-0.0226	0.008	33.342	ug/L
	Zn	66	87.001	0.00	-0.0411	0.020	49.374	ug/L
>	Ge	72	314534.681	314534.68				ug/L
	As	75	-115.184	0.00	0.0345	0.031	89.594	ug/L
	Se	77	99.334	0.00	0.6090	0.125	20.497	ug/L
	Se	82	-1.803	-0.00	0.0170	0.139	815.702	ug/L
	Rb	85	28.334	-0.00				mg/L
	Y	89	207673.024	-6121.37				ug/L
	Rh	103	11.667	-2.00				ug/L
	Mo	98	85.828	0.00	0.0062	0.009	138.466	ug/L
	Ag	107	81.668	0.00	-0.0271	0.004	16.114	ug/L
	Cd	114	3.136	0.00	-0.0276	0.005	17.301	ug/L
>	In	115	283436.867	283436.87				ug/L
	Sn	118	260.271	0.00	0.0015	0.002	155.559	ug/L
	Sb	123	38.117	0.00	-0.0070	0.000	7.033	ug/L
	Ba	135	40.667	0.00	-0.0214	0.005	23.961	ug/L
	Ce	140	23.336	-0.00				ug/L
>	Tb	159	399576.836	399576.84				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	356.678	0.00	0.0649	0.022	34.419	ug/L
	Tl	205	950.152	0.00	0.0800	0.020	25.254	ug/L
	Pb	206	199.671	0.00	-0.0057	0.003	57.964	ug/L
	Pb	207	175.670	0.00	-0.0098	0.004	36.138	ug/L
	Pb	208	819.024	0.00	-0.0064	0.003	45.425	ug/L
	U	238	98.002	0.00	-0.0266	0.002	8.956	ug/L
>	Bi	209	310680.445	310680.45				ug/L

Sample ID: QC Std 7
Report Date/Time: Wednesday, February 01, 2012 13:40:22
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⌈	Na	23	19531.670	0.02	-0.0011	0.001	66.994	mg/L
|	Mg	24	680.110	0.00	-0.0046	0.000	6.783	mg/L
|	K	39	426056.336	-0.31	-0.0175	0.002	11.287	mg/L
|	Ca	43	213.358	0.00	-0.0056	0.008	143.804	mg/L
|	Fe	54	29351.265	0.01	-0.0011	0.004	358.023	mg/L
|	Fe	57	6513.196	-0.00	-0.0064	0.001	16.289	mg/L
⌊>	Sc-1	45	133815.900	133815.90				mg/L
	Cl	35	39129.001	16646.71				mg/L
	Kr	83	54.001	6.67				mg/L
	Br	81	6240.337	70.05				mg/L
	P	31	8439.658	500.48				mg/L
	S	34	124138.684	-15912.98				mg/L
	Sr	88	50.005	-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		97.329			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		96.427			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		98.210			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		95.856			

Sample ID: QC Std 7
Report Date/Time: Wednesday, February 01, 2012 13:40:22
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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: Wednesday, February 01, 2012 13:40:22
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Method 6020 - Summary Report

Sample ID: Sample

Sample Date/Time: Wednesday, February 01, 2012 13:46:20
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 8
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	8938.138	-0.00				ug/L
	Be	9	3622.121	0.03	16.8379	1.197	7.110	ug/L
	Al	27	10339.749	0.06	2.6522	0.243	9.159	ug/L
>	Sc	45	135240.086	135240.09				ug/L
	Ti	49	76.675	0.00	-0.1070	0.059	55.607	ug/L
	V	51	2716.922	0.00	0.1300	0.024	18.364	ug/L
	Cr	52	9332.984	0.01	0.6346	0.013	1.986	ug/L
	Cr	53	3034.195	0.01	3.6888	0.536	14.534	ug/L
	Mn	55	1247.773	0.00	0.1029	0.007	7.007	ug/L
	Co	59	85437.990	0.27	12.9304	0.245	1.896	ug/L
	Ni	60	167.337	0.00	0.0678	0.010	14.477	ug/L
	Cu	65	183.337	0.00	0.0363	0.010	27.560	ug/L
	Zn	66	1170.427	0.00	1.3552	0.011	0.800	ug/L
>	Ge	72	319056.700	319056.70				ug/L
	As	75	-150.970	0.00	-0.0056	0.049	868.437	ug/L
	Se	77	85.334	0.00	0.3661	0.069	18.731	ug/L
	Se	82	4.244	0.00	0.0920	0.069	75.035	ug/L
	Rb	85	37.667	0.00				mg/L
	Y	89	212390.988	-1403.40				ug/L
	Rh	103	229230.224	229216.56				ug/L
	Mo	98	51.859	0.00	-0.0206	0.001	5.592	ug/L
	Ag	107	98.335	0.00	-0.0321	0.001	4.009	ug/L
	Cd	114	8.063	0.00	-0.0256	0.001	5.787	ug/L
>	In	115	456243.364	456243.36				ug/L
	Sn	118	681.095	0.00	0.0515	0.003	6.413	ug/L
	Sb	123	105.496	0.00	0.0019	0.001	53.009	ug/L
	Ba	135	20880.337	0.05	17.6096	0.194	1.104	ug/L
	Ce	140	291021.935	0.73				ug/L
>	Tb	159	401106.316	401106.32				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	62980.772	0.20	12.3863	0.288	2.323	ug/L
	Tl	205	157873.734	0.49	12.5768	0.042	0.334	ug/L
	Pb	206	73175.999	0.23	17.7537	0.345	1.943	ug/L
	Pb	207	62826.567	0.20	16.3055	0.114	0.699	ug/L
	Pb	208	293708.598	0.91	16.9818	0.273	1.610	ug/L
	U	238	83.668	0.00	-0.0273	0.000	1.470	ug/L
>	Bi	209	320714.602	320714.60				ug/L

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⌈	Na	23	26732.181	0.07	0.0013	0.001	54.267	mg/L
|	Mg	24	35355.084	0.26	0.0140	0.001	8.351	mg/L
|	K	39	442608.603	-0.21	-0.0145	0.004	30.196	mg/L
|	Ca	43	320.038	0.00	0.0056	0.005	95.173	mg/L
|	Fe	54	34820.471	0.05	0.0132	0.007	53.082	mg/L
|	Fe	57	7654.292	0.00	-0.0001	0.002	1843.771	mg/L
⌊>	Sc-1	45	135240.086	135240.09				mg/L
	Cl	35	53938.710	31456.42				mg/L
	Kr	83	48.667	1.33				mg/L
	Br	81	6282.371	112.08				mg/L
	P	31	9793.774	1854.59				mg/L
	S	34	128768.088	-11283.57				mg/L
	Sr	88	166.685	110.01				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		98.729			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		155.216			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		98.586			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		98.952			

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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
In 115 Int Std for sam	In	115	Rerun for AFCEE sample

Sample ID: Sample
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 01, 2012 13:52:27
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	9054.956	-0.00				ug/L
	Be	9	10705.541	0.07	47.1843	2.112	4.475	ug/L
	Al	27	167433.238	1.16	47.5408	2.412	5.074	ug/L
>	Sc	45	143085.020	143085.02				ug/L
	Ti	49	35833.809	0.11	101.8322	1.303	1.280	ug/L
	V	51	306272.607	0.96	49.1074	0.474	0.965	ug/L
	Cr	52	272605.569	0.84	49.2720	0.799	1.622	ug/L
	Cr	53	34005.972	0.11	51.3993	0.154	0.299	ug/L
	Mn	55	429088.670	1.35	50.2473	0.285	0.567	ug/L
	Co	59	330994.438	1.04	50.5173	0.237	0.469	ug/L
	Ni	60	67612.881	0.21	49.9738	0.561	1.123	ug/L
	Cu	65	66037.645	0.21	50.8692	0.575	1.130	ug/L
	Zn	66	39249.654	0.12	50.7967	1.103	2.172	ug/L
>	Ge	72	317079.129	317079.13				ug/L
	As	75	41661.322	0.13	49.3878	1.363	2.759	ug/L
	Se	77	3278.646	0.01	51.0009	2.145	4.206	ug/L
	Se	82	3966.180	0.01	50.3758	2.050	4.069	ug/L
	Rb	85	1528.155	0.00				mg/L
	Y	89	205144.663	-8649.73				ug/L
	Rh	103	335.011	321.34				ug/L
	Mo	98	203295.872	0.72	101.2803	1.291	1.274	ug/L
	Ag	107	207177.086	0.73	50.8013	0.865	1.703	ug/L
	Cd	114	45985.289	0.16	49.0184	1.488	3.036	ug/L
>	In	115	284045.682	284045.68				ug/L
	Sn	118	164488.236	0.58	50.3038	0.436	0.867	ug/L
	Sb	123	153744.386	0.54	49.8888	0.937	1.878	ug/L
	Ba	135	58234.358	0.15	49.9346	0.588	1.178	ug/L
	Ce	140	600.083	0.00				ug/L
>	Tb	159	395263.641	395263.64				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	241414.918	0.78	49.3252	0.807	1.637	ug/L
	Tl	205	599728.184	1.94	49.6187	1.441	2.905	ug/L
	Pb	206	199411.331	0.65	50.3377	0.214	0.425	ug/L
	Pb	207	185989.047	0.60	50.2415	0.450	0.895	ug/L
	Pb	208	834879.954	2.70	50.2305	0.349	0.695	ug/L
	U	238	1253510.121	4.06	52.6268	0.575	1.092	ug/L
>	Bi	209	308864.756	308864.76				ug/L

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Na	23	14757713.327	103.08	4.6991	0.237	5.053	mg/L
Mg	24	9518289.938	66.57	4.8177	0.222	4.618	mg/L
K	39	22063875.900	150.78	4.8102	0.152	3.156	mg/L
Ca	43	47328.811	0.33	4.7380	0.166	3.497	mg/L
Fe	54	1935579.054	13.32	4.9054	0.128	2.619	mg/L
Fe	57	883039.746	6.12	4.9150	0.085	1.721	mg/L
Sc-1	45	143085.020	143085.02				mg/L
Cl	35	28748.839	6266.55				mg/L
Kr	83	57.334	10.00				mg/L
Br	81	5791.355	-378.93				mg/L
P	31	7951.147	11.97				mg/L
S	34	137592.851	-2458.81				mg/L
Sr	88	3417.709	3361.04				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	98.215				
Cr	52	98.544				
Cr	53					
Mn	55	100.495				
Co	59	101.035				
Ni	60	99.948				
Cu	65	101.738				
Zn	66	101.593				
Ge	72		98.117			
As	75	98.776				
Se	77					
Se	82	100.752				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	101.603				
Cd	114	98.037				
In	115		96.634			
Sn	118					
Sb	123	99.778				
Ba	135	99.869				
Ce	140					
Tb	159		97.150			
Ho	165					
Tl	203	98.650				
Tl	205					
Pb	206					
Pb	207					
Pb	208	100.461				
U	238	105.254				
Bi	209		95.296			

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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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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 01, 2012 14:00:03
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	9171.785	-0.00				ug/L
	Be	9	10.000	0.00	-0.0764	0.028	36.069	ug/L
	Al	27	2033.584	0.00	0.1083	0.075	69.489	ug/L
>	Sc	45	139152.264	139152.26				ug/L
	Ti	49	56.673	0.00	-0.1619	0.046	28.111	ug/L
	V	51	1735.045	-0.00	-0.0244	0.011	46.919	ug/L
	Cr	52	6004.223	0.00	0.0347	0.020	56.906	ug/L
	Cr	53	1990.439	0.00	2.1356	0.445	20.835	ug/L
	Mn	55	292.675	0.00	-0.0081	0.002	25.677	ug/L
	Co	59	73.668	0.00	-0.0282	0.003	10.147	ug/L
	Ni	60	32.334	0.00	-0.0313	0.007	22.845	ug/L
	Cu	65	110.002	0.00	-0.0191	0.012	63.009	ug/L
	Zn	66	79.335	0.00	-0.0513	0.007	13.512	ug/L
>	Ge	72	315955.796	315955.80				ug/L
	As	75	-182.258	-0.00	-0.0442	0.078	176.849	ug/L
	Se	77	85.334	0.00	0.3808	0.076	20.077	ug/L
	Se	82	-7.797	-0.00	-0.0584	0.179	307.078	ug/L
	Rb	85	21.667	-0.00				mg/L
	Y	89	209505.607	-4288.79				ug/L
	Rh	103	17.334	3.67				ug/L
	Mo	98	79.417	0.00	0.0032	0.006	202.007	ug/L
	Ag	107	67.334	0.00	-0.0306	0.003	10.830	ug/L
	Cd	114	3.959	0.00	-0.0267	0.006	23.673	ug/L
>	In	115	282390.365	282390.36				ug/L
	Sn	118	255.071	0.00	0.0002	0.002	857.201	ug/L
	Sb	123	27.660	0.00	-0.0104	0.002	23.327	ug/L
	Ba	135	44.334	0.00	-0.0185	0.003	16.250	ug/L
	Ce	140	116.679	0.00				ug/L
>	Tb	159	401209.210	401209.21				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	124.336	0.00	0.0174	0.003	18.339	ug/L
	Tl	205	326.706	0.00	0.0284	0.008	27.367	ug/L
	Pb	206	228.339	0.00	0.0009	0.001	109.984	ug/L
	Pb	207	194.671	0.00	-0.0053	0.006	110.158	ug/L
	Pb	208	885.027	0.00	-0.0030	0.001	47.349	ug/L
	U	238	116.002	0.00	-0.0259	0.001	4.954	ug/L
>	Bi	209	313864.357	313864.36				ug/L

Sample ID: QC Std 7
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Na	23	17329.776	-0.00	-0.0021	0.000	18.187	mg/L
Mg	24	843.463	0.00	-0.0046	0.000	2.792	mg/L
K	39	424317.029	-0.44	-0.0218	0.002	9.884	mg/L
Ca	43	220.025	0.00	-0.0058	0.003	50.067	mg/L
Fe	54	30935.003	0.01	0.0001	0.005	5120.550	mg/L
Fe	57	6386.426	-0.01	-0.0086	0.003	32.878	mg/L
Sc-1	45	139152.264	139152.26				mg/L
Cl	35	23121.369	639.08				mg/L
Kr	83	53.334	6.00				mg/L
Br	81	6086.890	-83.40				mg/L
P	31	8608.479	669.30				mg/L
S	34	124576.953	-15474.71				mg/L
Sr	88	43.338	-13.33				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		97.769			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		96.071			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.611			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.839			

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: Wednesday, February 01, 2012 14:02:15
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Method 6020 - Summary Report

Sample ID: PBW X5 WG388352-02

Sample Date/Time: Wednesday, February 01, 2012 14:07:38
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	9271.832	0.00				ug/L
	Be	9	10.000	0.00	-0.0743	0.010	13.309	ug/L
	Al	27	2083.597	0.00	0.1533	0.094	61.555	ug/L
>	Sc	45	132681.291	132681.29				ug/L
	Ti	49	56.673	0.00	-0.1608	0.090	55.670	ug/L
	V	51	1740.468	-0.00	-0.0224	0.016	72.587	ug/L
	Cr	52	6023.903	0.00	0.0428	0.016	38.374	ug/L
	Cr	53	1523.627	0.00	1.4127	0.370	26.213	ug/L
	Mn	55	344.011	0.00	-0.0019	0.002	129.598	ug/L
	Co	59	60.001	0.00	-0.0302	0.002	6.499	ug/L
	Ni	60	81.668	0.00	0.0055	0.007	124.071	ug/L
	Cu	65	104.668	0.00	-0.0229	0.012	52.573	ug/L
	Zn	66	415.681	0.00	0.3887	0.036	9.326	ug/L
>	Ge	72	314663.689	314663.69				ug/L
	As	75	-116.531	0.00	0.0327	0.021	64.538	ug/L
	Se	77	69.334	0.00	0.1288	0.054	42.116	ug/L
	Se	82	-3.131	-0.00	-0.0006	0.070	12375.822	ug/L
	Rb	85	32.667	0.00				mg/L
	Y	89	203737.836	-10056.56				ug/L
	Rh	103	17.000	3.33				ug/L
	Mo	98	37.197	0.00	-0.0177	0.002	11.377	ug/L
	Ag	107	72.001	0.00	-0.0291	0.002	6.320	ug/L
	Cd	114	0.721	-0.00	-0.0302	0.006	18.487	ug/L
>	In	115	278011.345	278011.35				ug/L
	Sn	118	241.870	0.00	-0.0026	0.002	81.328	ug/L
	Sb	123	49.201	0.00	-0.0031	0.003	82.798	ug/L
	Ba	135	34.334	-0.00	-0.0258	0.007	26.368	ug/L
	Ce	140	83.342	0.00				ug/L
>	Tb	159	386322.363	386322.36				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	86.001	0.00	0.0101	0.002	21.528	ug/L
	Tl	205	226.693	0.00	0.0206	0.004	19.817	ug/L
	Pb	206	192.671	0.00	-0.0071	0.004	56.097	ug/L
	Pb	207	165.337	0.00	-0.0123	0.005	37.151	ug/L
	Pb	208	802.024	0.00	-0.0070	0.003	41.335	ug/L
	U	238	52.001	0.00	-0.0285	0.001	3.192	ug/L
>	Bi	209	308017.917	308017.92				ug/L

Sample ID: PBW X5 WG388352-02
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Na	23	18963.470	0.01	-0.0012	0.000	17.776	mg/L
Mg	24	603.416	0.00	-0.0047	0.000	1.418	mg/L
K	39	457357.066	-0.04	-0.0091	0.001	10.494	mg/L
Ca	43	210.024	0.00	-0.0057	0.003	60.039	mg/L
Fe	54	25766.205	-0.02	-0.0103	0.001	11.634	mg/L
Fe	57	5926.033	-0.01	-0.0096	0.001	11.115	mg/L
Sc-1	45	132681.291	132681.29				mg/L
Cl	35	22237.638	-244.65				mg/L
Kr	83	53.334	6.00				mg/L
Br	81	5707.300	-462.99				mg/L
P	31	6801.481	-1137.70				mg/L
S	34	116051.867	-23999.79				mg/L
Sr	88	66.674	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		97.369			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.581			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		94.952			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		95.035			

Sample ID: PBW X5 WG388352-02
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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 X5 WG388352-02
Report Date/Time: Wednesday, February 01, 2012 14:09:51
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Method 6020 - Summary Report

Sample ID: F BLANK WG388323-01

Sample Date/Time: Wednesday, February 01, 2012 14:15:25
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	9472.053	-0.00				ug/L
	Be	9	8.667	-0.00	-0.0850	0.026	30.756	ug/L
	Al	27	1450.134	-0.00	-0.0845	0.110	129.707	ug/L
>	Sc	45	145614.107	145614.11				ug/L
	Ti	49	46.672	0.00	-0.1924	0.099	51.516	ug/L
	V	51	2049.886	0.00	0.0214	0.015	70.276	ug/L
	Cr	52	6397.519	0.00	0.0895	0.019	21.684	ug/L
	Cr	53	1456.942	0.00	1.2704	0.398	31.351	ug/L
	Mn	55	249.673	-0.00	-0.0136	0.000	2.806	ug/L
	Co	59	60.334	-0.00	-0.0303	0.001	4.120	ug/L
	Ni	60	123.669	0.00	0.0351	0.009	26.681	ug/L
	Cu	65	89.001	0.00	-0.0365	0.007	18.629	ug/L
	Zn	66	190.004	0.00	0.0890	0.010	11.670	ug/L
>	Ge	72	320806.014	320806.01				ug/L
	As	75	-137.809	0.00	0.0108	0.044	411.885	ug/L
	Se	77	70.667	0.00	0.1311	0.313	238.610	ug/L
	Se	82	-3.122	-0.00	0.0001	0.058	44489.412	ug/L
	Rb	85	27.667	-0.00				mg/L
	Y	89	211016.505	-2777.89				ug/L
	Rh	103	5.667	-8.00				ug/L
	Mo	98	23.420	-0.00	-0.0250	0.003	11.094	ug/L
	Ag	107	55.667	0.00	-0.0335	0.002	6.232	ug/L
	Cd	114	2.373	0.00	-0.0284	0.006	20.504	ug/L
>	In	115	284293.399	284293.40				ug/L
	Sn	118	223.870	0.00	-0.0098	0.001	6.254	ug/L
	Sb	123	61.577	0.00	0.0006	0.001	129.786	ug/L
	Ba	135	44.667	0.00	-0.0183	0.008	44.121	ug/L
	Ce	140	90.009	0.00				ug/L
>	Tb	159	402437.973	402437.97				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	75.334	0.00	0.0073	0.001	15.080	ug/L
	Tl	205	210.024	0.00	0.0187	0.003	15.050	ug/L
	Pb	206	187.004	-0.00	-0.0102	0.001	9.866	ug/L
	Pb	207	186.004	0.00	-0.0084	0.004	43.234	ug/L
	Pb	208	791.356	0.00	-0.0093	0.000	4.532	ug/L
	U	238	44.001	-0.00	-0.0289	0.000	0.926	ug/L
>	Bi	209	319010.558	319010.56				ug/L

Sample ID: F BLANK WG388323-01
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⌈	Na	23	16765.193	-0.01	-0.0025	0.000	9.147	mg/L
|	Mg	24	363.378	0.00	-0.0048	0.000	0.818	mg/L
|	K	39	425042.355	-0.56	-0.0258	0.006	24.839	mg/L
|	Ca	43	183.354	-0.00	-0.0104	0.000	0.934	mg/L
|	Fe	54	29588.852	-0.01	-0.0069	0.002	30.307	mg/L
|	Fe	57	6349.730	-0.01	-0.0103	0.005	49.148	mg/L
⌊>	Sc-1	45	145614.107	145614.11				mg/L
	Cl	35	21180.898	-1301.39				mg/L
	Kr	83	52.334	5.00				mg/L
	Br	81	6075.548	-94.74				mg/L
	P	31	8148.668	209.49				mg/L
	S	34	118747.774	-21303.89				mg/L
	Sr	88	50.005	-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		99.270			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		96.718			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		98.913			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		98.426			

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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
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: F BLANK WG388323-02

Sample Date/Time: Wednesday, February 01, 2012 14:23:12
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	8921.455	-0.00				ug/L
	Be	9	6.667	-0.00	-0.0911	0.005	5.759	ug/L
	Al	27	2016.914	0.00	0.1149	0.097	84.256	ug/L
>	Sc	45	136695.806	136695.81				ug/L
	Ti	49	60.006	0.00	-0.1494	0.058	38.941	ug/L
	V	51	1794.186	0.00	-0.0095	0.020	211.026	ug/L
	Cr	52	6152.332	0.00	0.0836	0.010	12.125	ug/L
	Cr	53	1173.534	0.00	0.8985	0.207	23.001	ug/L
	Mn	55	400.014	0.00	0.0054	0.003	52.145	ug/L
	Co	59	56.001	-0.00	-0.0307	0.001	4.121	ug/L
	Ni	60	176.337	0.00	0.0781	0.008	10.385	ug/L
	Cu	65	113.669	0.00	-0.0146	0.002	16.324	ug/L
	Zn	66	263.340	0.00	0.1948	0.018	9.251	ug/L
>	Ge	72	310048.528	310048.53				ug/L
	As	75	-133.167	0.00	0.0104	0.046	444.615	ug/L
	Se	77	58.000	-0.00	-0.0382	0.084	220.747	ug/L
	Se	82	1.238	-0.00	0.0551	0.105	191.089	ug/L
	Rb	85	21.334	-0.00				mg/L
	Y	89	203116.887	-10677.50				ug/L
	Rh	103	7.333	-6.33				ug/L
	Mo	98	20.639	-0.00	-0.0262	0.001	4.401	ug/L
	Ag	107	68.668	0.00	-0.0300	0.001	3.152	ug/L
	Cd	114	-5.442	-0.00	-0.0369	0.006	15.897	ug/L
>	In	115	278337.293	278337.29				ug/L
	Sn	118	233.337	0.00	-0.0054	0.003	58.204	ug/L
	Sb	123	62.786	0.00	0.0014	0.001	85.321	ug/L
	Ba	135	46.667	0.00	-0.0151	0.013	88.706	ug/L
	Ce	140	100.011	0.00				ug/L
>	Tb	159	386705.054	386705.05				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	58.667	0.00	0.0044	0.001	27.164	ug/L
	Tl	205	193.355	0.00	0.0178	0.003	15.584	ug/L
	Pb	206	191.337	0.00	-0.0075	0.007	95.205	ug/L
	Pb	207	163.337	0.00	-0.0129	0.003	25.108	ug/L
	Pb	208	752.021	0.00	-0.0101	0.001	12.878	ug/L
	U	238	24.334	-0.00	-0.0296	0.000	0.644	ug/L
>	Bi	209	308617.138	308617.14				ug/L

Sample ID: F BLANK WG388323-02
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Na	23	16347.792	-0.01	-0.0023	0.001	30.334	mg/L
Mg	24	296.702	-0.00	-0.0048	0.000	0.219	mg/L
K	39	418880.578	-0.42	-0.0213	0.002	10.653	mg/L
Ca	43	206.690	0.00	-0.0068	0.001	15.950	mg/L
Fe	54	29314.901	0.00	-0.0028	0.005	188.621	mg/L
Fe	57	6219.615	-0.01	-0.0089	0.003	34.294	mg/L
Sc-1	45	136695.806	136695.81				mg/L
Cl	35	20967.017	-1515.27				mg/L
Kr	83	49.334	2.00				mg/L
Br	81	5884.745	-285.54				mg/L
P	31	7741.601	-197.58				mg/L
S	34	119021.773	-21029.89				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					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		95.941			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.692			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		95.046			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		95.220			

Sample ID: F BLANK WG388323-02
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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: F BLANK WG388323-02
Report Date/Time: Wednesday, February 01, 2012 14:25:25
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: LCSW X5 WG388352-03

Sample Date/Time: Wednesday, February 01, 2012 14:30:59
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	9805.777	0.00				ug/L
	Be	9	257.337	0.00	1.0717	0.067	6.272	ug/L
	Al	27	813180.170	5.95	244.3249	5.845	2.392	ug/L
>	Sc	45	136255.017	136255.02				ug/L
	Ti	49	8631.998	0.03	25.5775	0.350	1.369	ug/L
	V	51	150330.863	0.49	25.2218	0.574	2.275	ug/L
	Cr	52	71159.614	0.22	12.7539	0.251	1.970	ug/L
	Cr	53	13171.734	0.04	20.3895	0.987	4.838	ug/L
	Mn	55	101229.487	0.34	12.4441	0.107	0.861	ug/L
	Co	59	31761.405	0.11	5.0666	0.101	1.995	ug/L
	Ni	60	16300.425	0.05	12.6394	0.253	2.000	ug/L
	Cu	65	16290.070	0.05	13.1298	0.162	1.231	ug/L
	Zn	66	19757.259	0.07	26.8420	0.410	1.528	ug/L
>	Ge	72	301269.819	301269.82				ug/L
	As	75	7696.846	0.03	9.7391	0.217	2.231	ug/L
	Se	77	1022.729	0.00	16.0864	0.593	3.688	ug/L
	Se	82	748.979	0.00	10.0405	0.414	4.121	ug/L
	Rb	85	399.680	0.00				mg/L
	Y	89	199373.169	-14421.22				ug/L
	Rh	103	19.334	5.67				ug/L
	Mo	98	50200.566	0.19	26.2093	0.113	0.432	ug/L
	Ag	107	39876.245	0.15	10.2208	0.055	0.540	ug/L
	Cd	114	1139.591	0.00	1.2439	0.066	5.284	ug/L
>	In	115	270754.548	270754.55				ug/L
	Sn	118	207.736	0.00	-0.0116	0.001	11.426	ug/L
	Sb	123	87039.951	0.32	29.6199	0.254	0.858	ug/L
	Ba	135	28249.427	0.07	24.7320	0.398	1.611	ug/L
	Ce	140	123.347	0.00				ug/L
>	Tb	159	386671.028	386671.03				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	58283.700	0.19	11.8914	0.039	0.330	ug/L
	Tl	205	145887.178	0.47	12.0584	0.164	1.364	ug/L
	Pb	206	50071.819	0.16	12.5876	0.078	0.619	ug/L
	Pb	207	46806.892	0.15	12.5906	0.088	0.702	ug/L
	Pb	208	209682.292	0.68	12.5634	0.106	0.844	ug/L
	U	238	17.334	-0.00	-0.0299	0.000	0.780	ug/L
>	Bi	209	309108.668	309108.67				ug/L

Sample ID: LCSW X5 WG388352-03
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Na	23	3721260.730	27.19	1.2380	0.027	2.142	mg/L
Mg	24	493091.896	3.62	0.2572	0.006	2.393	mg/L
K	39	5641187.446	37.92	1.2038	0.053	4.376	mg/L
Ca	43	2807.421	0.02	0.2682	0.010	3.761	mg/L
Fe	54	72096.916	0.32	0.1132	0.005	4.347	mg/L
Fe	57	22512.636	0.11	0.0873	0.005	6.147	mg/L
Sc-1	45	136255.017	136255.02				mg/L
Cl	35	5501688.465	5479206.18				mg/L
Kr	83	46.001	-1.33				mg/L
Br	81	5590.549	-579.74				mg/L
P	31	8117.291	178.11				mg/L
S	34	109095.388	-30956.27				mg/L
Sr	88	202433.688	202377.02				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		93.225			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		92.112			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		95.038			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		95.371			

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

Sample ID: LCSW X5 WG388352-03
Report Date/Time: Wednesday, February 01, 2012 14:33:12
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201076901 WG388352-01

Sample Date/Time: Wednesday, February 01, 2012 14:38:47
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	10106.127	0.01				ug/L
	Be	9	5.333	-0.00	-0.0974	0.014	14.466	ug/L
	Al	27	156189.724	1.11	45.7412	2.172	4.748	ug/L
>	Sc	45	138441.614	138441.61				ug/L
	Ti	49	133.348	0.00	0.0593	0.074	125.197	ug/L
	V	51	2344.951	0.00	0.0759	0.009	11.821	ug/L
	Cr	52	6514.612	0.00	0.1348	0.035	25.623	ug/L
	Cr	53	1740.360	0.00	1.7552	0.509	29.013	ug/L
	Mn	55	39303.349	0.12	4.6016	0.212	4.610	ug/L
	Co	59	245.006	0.00	-0.0017	0.005	308.745	ug/L
	Ni	60	340.677	0.00	0.1988	0.018	9.062	ug/L
	Cu	65	967.066	0.00	0.6483	0.043	6.623	ug/L
	Zn	66	8659.928	0.03	11.1808	0.660	5.905	ug/L
>	Ge	72	314457.107	314457.11				ug/L
	As	75	-44.715	0.00	0.1179	0.030	25.864	ug/L
	Se	77	94.667	0.00	0.5360	0.225	41.925	ug/L
	Se	82	6.606	0.00	0.1241	0.098	78.868	ug/L
	Rb	85	403.014	0.00				mg/L
	Y	89	206405.365	-7389.03				ug/L
	Rh	103	12.333	-1.33				ug/L
	Mo	98	54.087	0.00	-0.0092	0.001	15.869	ug/L
	Ag	107	64.668	0.00	-0.0310	0.002	7.796	ug/L
	Cd	114	104.634	0.00	0.0826	0.012	14.834	ug/L
>	In	115	279171.335	279171.34				ug/L
	Sn	118	510.282	0.00	0.0807	0.005	6.160	ug/L
	Sb	123	92.787	0.00	0.0113	0.002	18.656	ug/L
	Ba	135	6009.897	0.02	5.1431	0.225	4.383	ug/L
	Ce	140	1480.282	0.00				ug/L
>	Tb	159	392089.153	392089.15				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	171.337	0.00	0.0267	0.008	30.152	ug/L
	Tl	205	483.396	0.00	0.0410	0.011	27.297	ug/L
	Pb	206	983.068	0.00	0.1873	0.009	4.571	ug/L
	Pb	207	910.392	0.00	0.1840	0.006	3.275	ug/L
	Pb	208	4071.767	0.01	0.1846	0.009	4.704	ug/L
	U	238	362.345	0.00	-0.0157	0.001	3.656	ug/L
>	Bi	209	315461.579	315461.58				ug/L

Sample ID: L1201076901 WG388352-01
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Na	23	19974393.161	144.12	6.5708	0.131	1.995	mg/L
Mg	24	128151.500	0.92	0.0621	0.002	2.503	mg/L
K	39	643393.230	1.16	0.0294	0.007	22.270	mg/L
Ca	43	39835.777	0.29	4.1160	0.085	2.070	mg/L
Fe	54	63199.232	0.24	0.0865	0.007	7.858	mg/L
Fe	57	25949.623	0.14	0.1051	0.003	3.253	mg/L
Sc-1	45	138441.614	138441.61				mg/L
Cl	35	242806.289	220324.00				mg/L
Kr	83	45.334	-2.00				mg/L
Br	81	5929.451	-240.84				mg/L
P	31	5540.515	-2398.67				mg/L
S	34	139157.965	-893.69				mg/L
Sr	88	39695.093	39638.42				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					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		97.305			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.975			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.369			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		97.331			

Sample ID: L1201076901 WG388352-01
Report Date/Time: Wednesday, February 01, 2012 14:41:00
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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: Wednesday, February 01, 2012 14:41:00
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Method 6020 - Summary Report

Sample ID: L1201076901S WG388352-04

Sample Date/Time: Wednesday, February 01, 2012 14:46:35
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	9488.754	0.01				ug/L
	Be	9	230.670	0.00	0.9979	0.030	2.981	ug/L
	Al	27	855717.398	6.57	269.6312	8.825	3.273	ug/L
>	Sc	45	130058.290	130058.29				ug/L
	Ti	49	7974.626	0.03	23.4198	1.955	8.349	ug/L
	V	51	133505.716	0.43	22.1859	0.866	3.904	ug/L
	Cr	52	64475.607	0.19	11.3556	0.463	4.076	ug/L
	Cr	53	12407.144	0.04	18.9956	0.882	4.642	ug/L
	Mn	55	131426.799	0.43	16.0412	0.659	4.106	ug/L
	Co	59	28215.341	0.09	4.4608	0.191	4.288	ug/L
	Ni	60	14915.828	0.05	11.4695	0.437	3.807	ug/L
	Cu	65	15193.666	0.05	12.1418	0.464	3.819	ug/L
	Zn	66	26645.157	0.09	35.9658	1.313	3.652	ug/L
>	Ge	72	303699.116	303699.12				ug/L
	As	75	7499.608	0.03	9.4218	0.421	4.468	ug/L
	Se	77	1008.061	0.00	15.7132	1.312	8.351	ug/L
	Se	82	765.259	0.00	10.1797	0.458	4.498	ug/L
	Rb	85	752.708	0.00				mg/L
	Y	89	197854.146	-15940.25				ug/L
	Rh	103	17.334	3.67				ug/L
	Mo	98	44096.801	0.17	23.3866	0.792	3.388	ug/L
	Ag	107	35435.935	0.13	9.2240	0.426	4.623	ug/L
	Cd	114	1157.011	0.00	1.2845	0.072	5.634	ug/L
>	In	115	266554.460	266554.46				ug/L
	Sn	118	336.007	0.00	0.0314	0.006	19.028	ug/L
	Sb	123	79083.886	0.30	27.3401	0.701	2.563	ug/L
	Ba	135	30945.722	0.08	28.1115	1.390	4.943	ug/L
	Ce	140	1646.994	0.00				ug/L
>	Tb	159	372884.429	372884.43				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	52752.037	0.17	10.9343	0.253	2.312	ug/L
	Tl	205	132370.214	0.43	11.1157	0.332	2.983	ug/L
	Pb	206	45604.948	0.15	11.6437	0.245	2.107	ug/L
	Pb	207	42172.980	0.14	11.5204	0.445	3.863	ug/L
	Pb	208	188347.347	0.62	11.4607	0.282	2.463	ug/L
	U	238	360.678	0.00	-0.0153	0.002	13.930	ug/L
>	Bi	209	304236.027	304236.03				ug/L

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Na	23	22771810.730	175.16	7.9864	0.318	3.987	mg/L
Mg	24	560094.316	4.31	0.3073	0.012	3.827	mg/L
K	39	5241166.342	36.84	1.1695	0.038	3.246	mg/L
Ca	43	38395.608	0.29	4.2227	0.063	1.503	mg/L
Fe	54	90228.574	0.48	0.1742	0.017	9.963	mg/L
Fe	57	37899.817	0.24	0.1888	0.007	3.468	mg/L
Sc-1	45	130058.290	130058.29				mg/L
Cl	35	5003962.884	4981480.60				mg/L
Kr	83	52.334	5.00				mg/L
Br	81	5770.005	-400.28				mg/L
P	31	5861.394	-2077.79				mg/L
S	34	139433.495	-618.17				mg/L
Sr	88	215177.466	215120.79				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		93.977			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		90.683			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		91.649			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		93.868			

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: Wednesday, February 01, 2012 14:48:48
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201076901SD WG388352-05

Sample Date/Time: Wednesday, February 01, 2012 14:54:23
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	9538.800	0.01				ug/L
	Be	9	254.004	0.00	1.1087	0.076	6.894	ug/L
	Al	27	767167.841	5.87	240.7731	8.881	3.689	ug/L
>	Sc	45	130531.844	130531.84				ug/L
	Ti	49	7727.699	0.03	22.6946	1.716	7.562	ug/L
	V	51	134275.811	0.44	22.3224	0.233	1.046	ug/L
	Cr	52	63638.047	0.19	11.1982	0.172	1.540	ug/L
	Cr	53	12253.577	0.04	18.7522	1.013	5.404	ug/L
	Mn	55	120929.961	0.40	14.7605	0.462	3.130	ug/L
	Co	59	28454.129	0.09	4.5002	0.109	2.419	ug/L
	Ni	60	15118.860	0.05	11.6290	0.289	2.488	ug/L
	Cu	65	15257.448	0.05	12.1964	0.334	2.739	ug/L
	Zn	66	26294.696	0.09	35.5012	0.758	2.135	ug/L
>	Ge	72	303567.765	303567.77				ug/L
	As	75	7476.300	0.03	9.3948	0.361	3.845	ug/L
	Se	77	974.724	0.00	15.1644	1.094	7.215	ug/L
	Se	82	768.969	0.00	10.2301	0.366	3.581	ug/L
	Rb	85	555.691	0.00				mg/L
	Y	89	193927.961	-19866.43				ug/L
	Rh	103	15.000	1.33				ug/L
	Mo	98	43597.920	0.16	23.0391	0.379	1.645	ug/L
	Ag	107	35051.925	0.13	9.0895	0.106	1.171	ug/L
	Cd	114	1090.027	0.00	1.2040	0.025	2.084	ug/L
>	In	115	267455.569	267455.57				ug/L
	Sn	118	249.337	0.00	0.0028	0.001	24.247	ug/L
	Sb	123	78930.348	0.30	27.1910	0.305	1.120	ug/L
	Ba	135	30493.015	0.08	27.2471	0.881	3.235	ug/L
	Ce	140	900.139	0.00				ug/L
>	Tb	159	379024.869	379024.87				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	52831.492	0.17	10.7589	0.186	1.732	ug/L
	Tl	205	134456.085	0.43	11.0931	0.100	0.898	ug/L
	Pb	206	45274.782	0.15	11.3555	0.150	1.324	ug/L
	Pb	207	41781.954	0.13	11.2110	0.255	2.275	ug/L
	Pb	208	188511.433	0.61	11.2680	0.142	1.264	ug/L
	U	238	325.676	0.00	-0.0170	0.000	2.169	ug/L
>	Bi	209	309680.998	309681.00				ug/L

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Na	23	23052867.514	176.64	8.0538	0.322	4.001	mg/L
Mg	24	564983.756	4.33	0.3089	0.014	4.646	mg/L
K	39	5281502.156	37.00	1.1745	0.038	3.202	mg/L
Ca	43	38944.770	0.30	4.2723	0.203	4.755	mg/L
Fe	54	68660.926	0.31	0.1121	0.006	5.686	mg/L
Fe	57	28524.973	0.17	0.1303	0.013	9.616	mg/L
Sc-1	45	130531.844	130531.84				mg/L
Cl	35	4908063.479	4885581.19				mg/L
Kr	83	47.334	0.00				mg/L
Br	81	5939.450	-230.84				mg/L
P	31	5935.456	-2003.72				mg/L
S	34	134227.153	-5824.51				mg/L
Sr	88	212235.192	212178.52				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		93.936			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		90.990			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		93.158			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		95.548			

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
Report Date/Time: Wednesday, February 01, 2012 14:56:36
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201077501

Sample Date/Time: Wednesday, February 01, 2012 15:02:12
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	9221.775	0.00				ug/L
	Be	9	9.333	0.00	-0.0778	0.023	29.008	ug/L
	Al	27	72952.627	0.53	21.7615	2.252	10.346	ug/L
>	Sc	45	134697.129	134697.13				ug/L
	Ti	49	146.683	0.00	0.0845	0.036	42.293	ug/L
	V	51	2425.671	0.00	0.0765	0.052	68.035	ug/L
	Cr	52	7680.288	0.01	0.3070	0.058	18.991	ug/L
	Cr	53	2403.925	0.01	2.6705	0.526	19.699	ug/L
	Mn	55	11220.662	0.03	1.2426	0.031	2.457	ug/L
	Co	59	265.674	0.00	0.0002	0.003	1452.603	ug/L
	Ni	60	611.695	0.00	0.3870	0.022	5.767	ug/L
	Cu	65	392.013	0.00	0.1915	0.015	7.770	ug/L
	Zn	66	6686.750	0.02	8.3265	0.165	1.979	ug/L
>	Ge	72	324532.216	324532.22				ug/L
	As	75	-110.632	0.00	0.0432	0.083	191.597	ug/L
	Se	77	180.669	0.00	1.8200	0.503	27.635	ug/L
	Se	82	124.548	0.00	1.5826	0.100	6.293	ug/L
	Rb	85	20485.695	0.06				mg/L
	Y	89	215514.919	1720.53				ug/L
	Rh	103	11.667	-2.00				ug/L
	Mo	98	636.300	0.00	0.2752	0.014	5.095	ug/L
	Ag	107	74.334	0.00	-0.0292	0.002	5.954	ug/L
	Cd	114	2.981	0.00	-0.0278	0.002	6.794	ug/L
>	In	115	288862.463	288862.46				ug/L
	Sn	118	201.736	-0.00	-0.0176	0.005	28.826	ug/L
	Sb	123	83.787	0.00	0.0074	0.002	32.644	ug/L
	Ba	135	11153.253	0.03	9.3883	0.756	8.050	ug/L
	Ce	140	776.781	0.00				ug/L
>	Tb	159	401170.919	401170.92				ug/L
	Ho	165	23.336	0.00				ug/L
	Tl	203	282.674	0.00	0.0482	0.004	7.549	ug/L
	Tl	205	686.764	0.00	0.0567	0.007	11.967	ug/L
	Pb	206	5133.300	0.02	1.1963	0.053	4.406	ug/L
	Pb	207	4298.485	0.01	1.0648	0.018	1.647	ug/L
	Pb	208	20234.229	0.06	1.1209	0.044	3.896	ug/L
	U	238	37.334	-0.00	-0.0291	0.000	1.276	ug/L
>	Bi	209	320049.651	320049.65				ug/L

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Na	23	36413157.969	270.34	12.3272	0.329	2.668	mg/L
Mg	24	11095.166	0.08	0.0010	0.000	42.322	mg/L
K	39	40558071.948	297.96	9.5129	0.573	6.026	mg/L
Ca	43	142763.376	1.06	15.2500	0.518	3.397	mg/L
Fe	54	40332.369	0.09	0.0286	0.005	18.596	mg/L
Fe	57	21122.201	0.10	0.0806	0.007	9.160	mg/L
Sc-1	45	134697.129	134697.13				mg/L
Cl	35	565920.951	543438.66				mg/L
Kr	83	52.334	5.00				mg/L
Br	81	11939.886	5769.60				mg/L
P	31	5907.428	-2031.75				mg/L
S	34	146718.913	6667.25				mg/L
Sr	88	146326.415	146269.74				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		100.423			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		98.272			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.601			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		98.747			

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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: L1201077501
Report Date/Time: Wednesday, February 01, 2012 15:04:25
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201077501PS WG388429-01

Sample Date/Time: Wednesday, February 01, 2012 15:09:59
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	9255.151	-0.00				ug/L
	Be	9	9592.854	0.07	43.4761	0.709	1.631	ug/L
	Al	27	212594.473	1.52	62.2498	1.272	2.043	ug/L
>	Sc	45	139016.694	139016.69				ug/L
	Ti	49	120.013	0.00	0.0153	0.153	1000.847	ug/L
	V	51	272237.631	0.85	43.2231	1.473	3.409	ug/L
	Cr	52	249040.312	0.76	44.5057	1.603	3.602	ug/L
	Cr	53	31244.919	0.10	46.7141	1.318	2.821	ug/L
	Mn	55	390115.793	1.22	45.2685	1.424	3.145	ug/L
	Co	59	289131.848	0.90	43.7226	1.139	2.605	ug/L
	Ni	60	60083.759	0.19	43.9954	0.858	1.949	ug/L
	Cu	65	58773.901	0.18	44.8694	2.319	5.169	ug/L
	Zn	66	41734.354	0.13	53.5497	2.268	4.235	ug/L
>	Ge	72	320101.976	320101.98				ug/L
	As	75	38937.027	0.12	45.7411	0.961	2.101	ug/L
	Se	77	3327.999	0.01	51.3166	2.952	5.753	ug/L
	Se	82	4033.918	0.01	50.7415	1.074	2.116	ug/L
	Rb	85	19729.525	0.06				mg/L
	Y	89	211367.957	-2426.44				ug/L
	Rh	103	18.667	5.00				ug/L
	Mo	98	632.300	0.00	0.2730	0.011	4.112	ug/L
	Ag	107	183322.110	0.63	44.1726	0.659	1.492	ug/L
	Cd	114	43320.399	0.15	45.3911	2.544	5.604	ug/L
>	In	115	289037.383	289037.38				ug/L
	Sn	118	247.870	0.00	-0.0037	0.002	43.549	ug/L
	Sb	123	139843.759	0.48	44.5913	0.563	1.263	ug/L
	Ba	135	62810.540	0.16	53.3266	1.148	2.153	ug/L
	Ce	140	733.439	0.00				ug/L
>	Tb	159	399207.375	399207.38				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	214318.690	0.69	43.2780	1.262	2.916	ug/L
	Tl	205	535338.127	1.71	43.7557	0.382	0.872	ug/L
	Pb	206	186605.788	0.60	46.5670	2.147	4.610	ug/L
	Pb	207	162846.697	0.52	43.4829	1.937	4.456	ug/L
	Pb	208	761007.049	2.43	45.2566	1.669	3.688	ug/L
	U	238	1100776.381	3.52	45.6714	1.348	2.953	ug/L
>	Bi	209	312569.863	312569.86				ug/L

Sample ID: L1201077501PS WG388429-01
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Na	23	36722165.152	264.02	12.0390	0.173	1.436	mg/L
Mg	24	10484.312	0.07	0.0005	0.000	39.613	mg/L
K	39	39668194.492	281.87	8.9988	0.160	1.776	mg/L
Ca	43	135571.731	0.97	14.0207	0.528	3.764	mg/L
Fe	54	39474.710	0.07	0.0228	0.003	12.383	mg/L
Fe	57	21840.778	0.10	0.0807	0.002	2.963	mg/L
Sc-1	45	139016.694	139016.69				mg/L
Cl	35	542651.530	520169.24				mg/L
Kr	83	52.667	5.33				mg/L
Br	81	10007.340	3837.05				mg/L
P	31	5431.771	-2507.41				mg/L
S	34	150134.562	10082.90				mg/L
Sr	88	138834.251	138777.58				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		99.052			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		98.332			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.119			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.439			

Sample ID: L1201077501PS WG388429-01
Report Date/Time: Wednesday, February 01, 2012 15:12:12
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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
Report Date/Time: Wednesday, February 01, 2012 15:12:12
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Method 6020 - Summary Report

Sample ID: L1201077501SDL WG388429-02

Sample Date/Time: Wednesday, February 01, 2012 15:17:46
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	9121.675	-0.00				ug/L
	Be	9	10.000	0.00	-0.0759	0.034	44.733	ug/L
	Al	27	13661.192	0.08	3.5144	0.216	6.135	ug/L
>	Sc	45	140102.622	140102.62				ug/L
	Ti	49	36.670	-0.00	-0.2221	0.042	19.132	ug/L
	V	51	2154.126	0.00	0.0343	0.032	93.916	ug/L
	Cr	52	6716.106	0.00	0.1346	0.018	13.707	ug/L
	Cr	53	1460.278	0.00	1.2507	0.460	36.773	ug/L
	Mn	55	2195.645	0.01	0.2091	0.001	0.559	ug/L
	Co	59	111.669	0.00	-0.0228	0.002	10.031	ug/L
	Ni	60	133.336	0.00	0.0412	0.009	22.392	ug/L
	Cu	65	136.336	0.00	-0.0014	0.005	337.109	ug/L
	Zn	66	1538.157	0.00	1.7980	0.051	2.810	ug/L
>	Ge	72	324243.281	324243.28				ug/L
	As	75	-110.480	0.00	0.0437	0.016	37.580	ug/L
	Se	77	86.667	0.00	0.3649	0.113	31.086	ug/L
	Se	82	29.545	0.00	0.4051	0.161	39.809	ug/L
	Rb	85	3527.782	0.01				mg/L
	Y	89	211782.082	-2012.31				ug/L
	Rh	103	7.667	-6.00				ug/L
	Mo	98	114.490	0.00	0.0191	0.001	3.532	ug/L
	Ag	107	75.001	0.00	-0.0292	0.005	16.118	ug/L
	Cd	114	11.163	0.00	-0.0193	0.007	35.097	ug/L
>	In	115	290467.527	290467.53				ug/L
	Sn	118	198.136	-0.00	-0.0190	0.003	15.590	ug/L
	Sb	123	75.078	0.00	0.0044	0.004	86.849	ug/L
	Ba	135	1926.242	0.00	1.5441	0.046	2.974	ug/L
	Ce	140	166.685	0.00				ug/L
>	Tb	159	408482.337	408482.34				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	110.669	0.00	0.0140	0.003	18.687	ug/L
	Tl	205	270.032	0.00	0.0232	0.006	27.681	ug/L
	Pb	206	998.737	0.00	0.1848	0.005	2.743	ug/L
	Pb	207	873.388	0.00	0.1681	0.008	4.720	ug/L
	Pb	208	4068.436	0.01	0.1783	0.006	3.112	ug/L
	U	238	138.336	0.00	-0.0251	0.001	2.832	ug/L
>	Bi	209	323891.672	323891.67				ug/L

Sample ID: L1201077501SDL WG388429-02
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Na	23	6386957.194	45.45	2.0710	0.020	0.965	mg/L
Mg	24	2117.148	0.01	-0.0039	0.000	1.636	mg/L
K	39	7359763.283	49.04	1.5591	0.024	1.518	mg/L
Ca	43	23813.048	0.17	2.4209	0.054	2.235	mg/L
Fe	54	27402.142	-0.02	-0.0096	0.005	52.034	mg/L
Fe	57	8688.742	0.01	0.0043	0.002	55.903	mg/L
Sc-1	45	140102.622	140102.62				mg/L
Cl	35	115902.446	93420.16				mg/L
Kr	83	52.334	5.00				mg/L
Br	81	7028.300	858.01				mg/L
P	31	7397.964	-541.22				mg/L
S	34	139578.815	-472.85				mg/L
Sr	88	24361.336	24304.66				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		100.334			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		98.818			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		100.398			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		99.932			

Sample ID: L1201077501SDL WG388429-02
Report Date/Time: Wednesday, February 01, 2012 15:19:59
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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: Wednesday, February 01, 2012 15:19:59
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 01, 2012 15:25:34
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	8654.503	-0.01				ug/L
	Be	9	10726.900	0.07	47.1836	1.244	2.637	ug/L
	Al	27	167057.886	1.15	47.3317	0.746	1.577	ug/L
>	Sc	45	143322.198	143322.20				ug/L
	Ti	49	34933.226	0.11	98.1519	1.308	1.333	ug/L
	V	51	309236.897	0.96	49.0259	0.742	1.513	ug/L
	Cr	52	275574.407	0.84	49.2477	1.252	2.542	ug/L
	Cr	53	33741.616	0.10	50.4175	2.474	4.908	ug/L
	Mn	55	425049.003	1.32	49.2100	0.373	0.759	ug/L
	Co	59	327397.818	1.02	49.4027	0.534	1.080	ug/L
	Ni	60	67625.358	0.21	49.4155	0.619	1.254	ug/L
	Cu	65	66171.034	0.21	50.3947	0.345	0.684	ug/L
	Zn	66	38682.306	0.12	49.5015	0.998	2.016	ug/L
>	Ge	72	320692.476	320692.48				ug/L
	As	75	42188.615	0.13	49.4389	0.578	1.170	ug/L
	Se	77	3231.961	0.01	49.6754	1.723	3.468	ug/L
	Se	82	3990.926	0.01	50.1122	0.905	1.806	ug/L
	Rb	85	1519.821	0.00				mg/L
	Y	89	215256.364	1461.97				ug/L
	Rh	103	60.001	46.33				ug/L
	Mo	98	202648.961	0.71	100.3135	2.324	2.317	ug/L
	Ag	107	208137.872	0.73	50.7142	1.369	2.699	ug/L
	Cd	114	47188.253	0.17	49.9785	0.402	0.805	ug/L
>	In	115	285913.754	285913.75				ug/L
	Sn	118	163496.173	0.57	49.6772	0.638	1.284	ug/L
	Sb	123	151983.299	0.53	49.0033	1.319	2.691	ug/L
	Ba	135	58607.963	0.15	49.6033	0.671	1.352	ug/L
	Ce	140	116.679	0.00				ug/L
>	Tb	159	400466.613	400466.61				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	246950.645	0.78	48.9567	0.585	1.194	ug/L
	Tl	205	596705.007	1.87	47.8909	0.362	0.756	ug/L
	Pb	206	200715.505	0.63	49.1647	0.286	0.583	ug/L
	Pb	207	188783.762	0.59	49.4855	0.726	1.467	ug/L
	Pb	208	836649.694	2.63	48.8436	0.918	1.880	ug/L
	U	238	1303527.107	4.10	53.1038	0.749	1.410	ug/L
>	Bi	209	318291.750	318291.75				ug/L

Sample ID: QC Std 6
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Na	23	14880724.195	103.73	4.7288	0.191	4.046	mg/L
Mg	24	9549372.808	66.66	4.8243	0.201	4.157	mg/L
K	39	22804592.945	155.67	4.9664	0.140	2.815	mg/L
Ca	43	48586.086	0.34	4.8566	0.141	2.898	mg/L
Fe	54	1898720.575	13.04	4.8010	0.055	1.156	mg/L
Fe	57	864839.070	5.98	4.8038	0.118	2.460	mg/L
Sc-1	45	143322.198	143322.20				mg/L
Cl	35	22319.851	-162.44				mg/L
Kr	83	49.001	1.67				mg/L
Br	81	5912.101	-258.19				mg/L
P	31	7771.627	-167.55				mg/L
S	34	138663.789	-1387.87				mg/L
Sr	88	3474.405	3417.73				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	98.052				
Cr	52	98.495				
Cr	53					
Mn	55	98.420				
Co	59	98.805				
Ni	60	98.831				
Cu	65	100.789				
Zn	66	99.003				
Ge	72		99.235			
As	75	98.878				
Se	77					
Se	82	100.224				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	101.428				
Cd	114	99.957				
In	115		97.269			
Sn	118					
Sb	123	98.007				
Ba	135	99.207				
Ce	140					
Tb	159		98.428			
Ho	165					
Tl	203	97.913				
Tl	205					
Pb	206					
Pb	207					
Pb	208	97.687				
U	238	106.208				
Bi	209		98.205			

Sample ID: QC Std 6
Report Date/Time: Wednesday, February 01, 2012 15:27:47
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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: QC Std 6
Report Date/Time: Wednesday, February 01, 2012 15:27:47
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 01, 2012 15:33:10
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	9038.250	-0.00				ug/L
	Be	9	7.333	-0.00	-0.0892	0.015	16.883	ug/L
	Al	27	1916.898	0.00	0.0577	0.170	294.344	ug/L
>	Sc	45	144308.885	144308.89				ug/L
	Ti	49	23.336	-0.00	-0.2584	0.043	16.714	ug/L
	V	51	1798.164	-0.00	-0.0183	0.014	74.744	ug/L
	Cr	52	5866.791	0.00	-0.0059	0.027	461.634	ug/L
	Cr	53	1016.830	0.00	0.6004	0.029	4.816	ug/L
	Mn	55	244.339	-0.00	-0.0142	0.002	11.868	ug/L
	Co	59	78.001	0.00	-0.0277	0.001	3.240	ug/L
	Ni	60	32.000	0.00	-0.0319	0.002	6.338	ug/L
	Cu	65	89.001	0.00	-0.0363	0.008	23.103	ug/L
	Zn	66	91.335	0.00	-0.0374	0.027	71.876	ug/L
>	Ge	72	320332.537	320332.54				ug/L
	As	75	-105.394	0.00	0.0481	0.020	42.533	ug/L
	Se	77	78.000	0.00	0.2457	0.087	35.272	ug/L
	Se	82	8.542	0.00	0.1462	0.022	15.212	ug/L
	Rb	85	27.000	-0.00				mg/L
	Y	89	214083.454	289.06				ug/L
	Rh	103	12.667	-1.00				ug/L
	Mo	98	71.234	0.00	-0.0018	0.008	470.543	ug/L
	Ag	107	72.334	0.00	-0.0296	0.002	6.494	ug/L
	Cd	114	0.891	-0.00	-0.0300	0.003	10.649	ug/L
>	In	115	288383.131	288383.13				ug/L
	Sn	118	259.604	0.00	-0.0000	0.003	6973.682	ug/L
	Sb	123	35.993	0.00	-0.0079	0.002	24.671	ug/L
	Ba	135	54.001	0.00	-0.0105	0.002	18.252	ug/L
	Ce	140	36.670	0.00				ug/L
>	Tb	159	402653.348	402653.35				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	75.668	0.00	0.0075	0.003	42.247	ug/L
	Tl	205	150.016	0.00	0.0139	0.003	18.632	ug/L
	Pb	206	200.671	0.00	-0.0067	0.003	44.945	ug/L
	Pb	207	186.004	0.00	-0.0082	0.003	42.174	ug/L
	Pb	208	834.358	0.00	-0.0066	0.002	28.482	ug/L
	U	238	102.668	0.00	-0.0265	0.001	3.502	ug/L
>	Bi	209	318202.210	318202.21				ug/L

Sample ID: QC Std 7
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Na	23	16330.973	-0.02	-0.0026	0.000	8.171	mg/L
Mg	24	690.100	0.00	-0.0047	0.000	1.974	mg/L
K	39	410621.529	-0.64	-0.0281	0.006	20.502	mg/L
Ca	43	176.686	-0.00	-0.0107	0.009	82.087	mg/L
Fe	54	29653.985	-0.01	-0.0060	0.003	55.746	mg/L
Fe	57	5952.722	-0.01	-0.0123	0.001	10.496	mg/L
Sc-1	45	144308.885	144308.89				mg/L
Cl	35	20572.699	-1909.59				mg/L
Kr	83	52.667	5.33				mg/L
Br	81	6413.134	242.85				mg/L
P	31	8874.726	935.55				mg/L
S	34	126455.238	-13596.42				mg/L
Sr	88	50.005	-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		99.124			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		98.109			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.966			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		98.177			

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: Wednesday, February 01, 2012 15:35:22
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Method 6020 - Summary Report

Sample ID: PBS 1A WG388442-02

Sample Date/Time: Wednesday, February 01, 2012 15:45:02
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 12
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	9371.959	0.00				ug/L
	Be	9	8.000	-0.00	-0.0845	0.019	22.155	ug/L
	Al	27	1966.909	0.00	0.1067	0.158	148.010	ug/L
>	Sc	45	135255.792	135255.79				ug/L
	Ti	49	43.338	-0.00	-0.1994	0.073	36.461	ug/L
	V	51	1632.657	-0.00	-0.0396	0.015	38.669	ug/L
	Cr	52	5623.954	-0.00	-0.0303	0.024	78.066	ug/L
	Cr	53	713.436	0.00	0.1595	0.196	122.990	ug/L
	Mn	55	280.341	0.00	-0.0094	0.002	25.846	ug/L
	Co	59	57.001	-0.00	-0.0307	0.002	6.762	ug/L
	Ni	60	66.001	0.00	-0.0061	0.004	68.265	ug/L
	Cu	65	99.002	0.00	-0.0272	0.003	12.145	ug/L
	Zn	66	203.338	0.00	0.1115	0.005	4.408	ug/L
>	Ge	72	314274.325	314274.33				ug/L
	As	75	-139.689	0.00	0.0049	0.032	652.534	ug/L
	Se	77	65.334	0.00	0.0662	0.091	137.431	ug/L
	Se	82	1.565	-0.00	0.0588	0.089	151.835	ug/L
	Rb	85	26.000	-0.00				mg/L
	Y	89	210253.591	-3540.80				ug/L
	Rh	103	8.667	-5.00				ug/L
	Mo	98	31.050	0.00	-0.0210	0.001	6.059	ug/L
	Ag	107	53.334	0.00	-0.0339	0.001	3.297	ug/L
	Cd	114	2.282	0.00	-0.0285	0.003	11.758	ug/L
>	In	115	281362.127	281362.13				ug/L
	Sn	118	201.469	-0.00	-0.0161	0.002	12.183	ug/L
	Sb	123	66.952	0.00	0.0026	0.002	72.558	ug/L
	Ba	135	43.334	0.00	-0.0186	0.009	46.839	ug/L
	Ce	140	30.003	-0.00				ug/L
>	Tb	159	393420.821	393420.82				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	68.334	0.00	0.0064	0.002	37.903	ug/L
	Tl	205	126.680	0.00	0.0124	0.002	14.328	ug/L
	Pb	206	196.338	0.00	-0.0062	0.005	83.505	ug/L
	Pb	207	182.004	0.00	-0.0077	0.005	63.200	ug/L
	Pb	208	805.690	0.00	-0.0068	0.004	59.432	ug/L
	U	238	49.667	-0.00	-0.0286	0.001	4.059	ug/L
>	Bi	209	308157.417	308157.42				ug/L

Sample ID: PBS 1A WG388442-02
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Na	23	17323.109	-0.00	-0.0019	0.000	23.849	mg/L
Mg	24	580.084	0.00	-0.0047	0.000	4.399	mg/L
K	39	412382.173	-0.44	-0.0218	0.004	16.208	mg/L
Ca	43	133.348	-0.00	-0.0143	0.001	6.713	mg/L
Fe	54	28871.453	0.00	-0.0031	0.007	227.061	mg/L
Fe	57	5782.585	-0.01	-0.0112	0.001	12.188	mg/L
Sc-1	45	135255.792	135255.79				mg/L
Cl	35	18848.629	-3633.66				mg/L
Kr	83	50.001	2.67				mg/L
Br	81	6206.311	36.02				mg/L
P	31	7502.720	-436.46				mg/L
S	34	119999.980	-20051.68				mg/L
Sr	88	36.670	-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		97.249			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.721			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.697			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		95.078			

Sample ID: PBS 1A WG388442-02
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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: PBS 1A WG388442-02
Report Date/Time: Wednesday, February 01, 2012 15:47:15
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: LCSS 1A WG388442-03

Sample Date/Time: Wednesday, February 01, 2012 15:52:49
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 13
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	9221.789	0.00				ug/L
	Be	9	5116.238	0.04	23.9220	1.319	5.516	ug/L
	Al	27	81900.729	0.60	24.4900	1.131	4.617	ug/L
>	Sc	45	134595.779	134595.78				ug/L
	Ti	49	63.340	0.00	-0.1399	0.016	11.783	ug/L
	V	51	146445.899	0.47	23.8214	0.335	1.406	ug/L
	Cr	52	134915.570	0.42	24.3663	0.273	1.120	ug/L
	Cr	53	16571.456	0.05	25.1061	0.828	3.297	ug/L
	Mn	55	207637.202	0.67	24.8086	0.171	0.690	ug/L
	Co	59	160020.394	0.52	24.9210	0.098	0.393	ug/L
	Ni	60	32996.862	0.11	24.8796	0.319	1.282	ug/L
	Cu	65	31747.681	0.10	24.9220	0.302	1.212	ug/L
	Zn	66	18591.234	0.06	24.4936	0.064	0.259	ug/L
>	Ge	72	310488.690	310488.69				ug/L
	As	75	19932.720	0.06	24.2156	0.368	1.518	ug/L
	Se	77	1529.474	0.00	23.7877	1.405	5.905	ug/L
	Se	82	1891.248	0.01	24.5469	0.361	1.470	ug/L
	Rb	85	26.334	-0.00				mg/L
	Y	89	208363.837	-5430.55				ug/L
	Rh	103	15.334	1.67				ug/L
	Mo	98	44.343	0.00	-0.0141	0.003	22.561	ug/L
	Ag	107	101148.557	0.36	25.3381	0.625	2.467	ug/L
	Cd	114	22421.872	0.08	24.4220	0.478	1.956	ug/L
>	In	115	277860.086	277860.09				ug/L
	Sn	118	222.670	0.00	-0.0086	0.001	6.405	ug/L
	Sb	123	71949.320	0.26	23.8607	0.487	2.043	ug/L
	Ba	135	28151.094	0.07	24.5472	0.279	1.137	ug/L
	Ce	140	60.006	0.00				ug/L
>	Tb	159	388221.835	388221.84				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	118826.794	0.38	23.9378	0.195	0.814	ug/L
	Tl	205	286034.402	0.91	23.3370	0.414	1.775	ug/L
	Pb	206	99700.552	0.32	24.7950	0.336	1.355	ug/L
	Pb	207	87859.126	0.28	23.3820	0.853	3.647	ug/L
	Pb	208	410587.946	1.31	24.3362	0.347	1.428	ug/L
	U	238	601213.521	1.92	24.8759	0.283	1.138	ug/L
>	Bi	209	313195.913	313195.91				ug/L

Sample ID: LCSS 1A WG388442-03
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Na	23	16828.663	-0.00	-0.0020	0.000	15.556	mg/L
Mg	24	293.369	-0.00	-0.0048	0.000	1.517	mg/L
K	39	424007.741	-0.34	-0.0185	0.004	22.873	mg/L
Ca	43	176.686	-0.00	-0.0097	0.003	28.164	mg/L
Fe	54	27660.987	-0.01	-0.0061	0.003	44.812	mg/L
Fe	57	5475.679	-0.01	-0.0128	0.002	11.817	mg/L
Sc-1	45	134595.779	134595.78				mg/L
Cl	35	20495.179	-1987.11				mg/L
Kr	83	37.667	-9.67				mg/L
Br	81	6176.288	6.00				mg/L
P	31	8208.767	269.59				mg/L
S	34	124493.084	-15558.58				mg/L
Sr	88	60.006	3.33				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		96.077			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.529			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		95.419			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.632			

Sample ID: LCSS 1A WG388442-03
Report Date/Time: Wednesday, February 01, 2012 15:55:01
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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: LCSS 1A WG388442-03
Report Date/Time: Wednesday, February 01, 2012 15:55:01
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201079519 WG388442-01

Sample Date/Time: Wednesday, February 01, 2012 16:00:35
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 14
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	8854.709	-0.00				ug/L
	Be	9	34.000	0.00	0.0347	0.010	28.062	ug/L
	Al	27	2506891.671	18.26	749.2925	76.121	10.159	ug/L
>	Sc	45	137169.860	137169.86				ug/L
	Ti	49	3941.340	0.01	11.0048	1.679	15.256	ug/L
	V	51	26058.207	0.08	3.9343	0.238	6.040	ug/L
	Cr	52	19634.705	0.04	2.5784	0.226	8.773	ug/L
	Cr	53	2513.967	0.01	2.9538	0.423	14.316	ug/L
	Mn	55	396755.392	1.26	46.8502	3.008	6.420	ug/L
	Co	59	5837.777	0.02	0.8598	0.066	7.674	ug/L
	Ni	60	3754.554	0.01	2.7458	0.223	8.137	ug/L
	Cu	65	3848.597	0.01	2.8915	0.195	6.741	ug/L
	Zn	66	7110.111	0.02	9.1544	0.530	5.793	ug/L
>	Ge	72	314342.012	314342.01				ug/L
	As	75	382.840	0.00	0.6273	0.031	5.011	ug/L
	Se	77	102.667	0.00	0.6626	0.183	27.584	ug/L
	Se	82	50.175	0.00	0.6807	0.112	16.514	ug/L
	Rb	85	3977.990	0.01				mg/L
	Y	89	230223.559	16429.17				ug/L
	Rh	103	11.333	-2.33				ug/L
	Mo	98	445.733	0.00	0.1926	0.015	7.930	ug/L
	Ag	107	82.668	0.00	-0.0262	0.001	3.370	ug/L
	Cd	114	64.163	0.00	0.0398	0.015	38.874	ug/L
>	In	115	275181.459	275181.46				ug/L
	Sn	118	251.604	0.00	0.0012	0.003	265.435	ug/L
	Sb	123	166.036	0.00	0.0362	0.008	21.518	ug/L
	Ba	135	15107.857	0.04	13.1204	0.724	5.515	ug/L
	Ce	140	115031.335	0.30				ug/L
>	Tb	159	389099.351	389099.35				ug/L
	Ho	165	1783.705	0.01				ug/L
	Tl	203	115.335	0.00	0.0158	0.001	6.633	ug/L
	Tl	205	196.689	0.00	0.0180	0.004	23.483	ug/L
	Pb	206	8704.307	0.03	2.1260	0.119	5.603	ug/L
	Pb	207	7453.414	0.02	1.9422	0.116	5.949	ug/L
	Pb	208	34604.040	0.11	2.0118	0.129	6.411	ug/L
	U	238	9251.580	0.03	0.3547	0.029	8.148	ug/L
>	Bi	209	311363.316	311363.32				ug/L

Sample ID: L1201079519 WG388442-01
Report Date/Time: Wednesday, February 01, 2012 16:02:48
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Na	23	47761.654	0.22	0.0081	0.001	14.186	mg/L
Mg	24	1158145.850	8.44	0.6069	0.038	6.323	mg/L
K	39	634607.652	1.14	0.0286	0.003	8.782	mg/L
Ca	43	31268.735	0.23	3.2565	0.346	10.620	mg/L
Fe	54	795465.543	5.59	2.0554	0.137	6.673	mg/L
Fe	57	327323.814	2.33	1.8726	0.135	7.200	mg/L
Sc-1	45	137169.860	137169.86				mg/L
Cl	35	19969.916	-2512.37				mg/L
Kr	83	56.667	9.33				mg/L
Br	81	6599.952	429.67				mg/L
P	31	66967.297	59028.12				mg/L
S	34	132140.714	-7910.95				mg/L
Sr	88	45166.720	45110.05				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		97.270			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		93.618			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		95.634			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.067			

Sample ID: L1201079519 WG388442-01
Report Date/Time: Wednesday, February 01, 2012 16:02:48
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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: L1201079519 WG388442-01
Report Date/Time: Wednesday, February 01, 2012 16:02:48
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201079519S WG388442-04

Sample Date/Time: Wednesday, February 01, 2012 16:09:25
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 15
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	9705.671	0.00				ug/L
	Be	9	1411.453	0.01	6.1706	0.238	3.851	ug/L
	Al	27	3068615.964	21.63	887.2112	38.858	4.380	ug/L
>	Sc	45	141830.753	141830.75				ug/L
	Ti	49	5298.881	0.02	15.1200	0.222	1.467	ug/L
	V	51	74675.176	0.24	12.0083	0.489	4.069	ug/L
	Cr	52	56780.956	0.16	9.6403	0.450	4.671	ug/L
	Cr	53	6676.679	0.02	9.5583	0.570	5.963	ug/L
	Mn	55	515848.785	1.66	61.7502	4.079	6.606	ug/L
	Co	59	48594.534	0.16	7.5467	0.494	6.549	ug/L
	Ni	60	12940.530	0.04	9.7321	0.617	6.343	ug/L
	Cu	65	13216.621	0.04	10.3226	0.444	4.299	ug/L
	Zn	66	11720.368	0.04	15.3981	0.752	4.885	ug/L
>	Ge	72	310179.441	310179.44				ug/L
	As	75	5264.689	0.02	6.5260	0.510	7.817	ug/L
	Se	77	464.680	0.00	6.5517	0.709	10.821	ug/L
	Se	82	530.582	0.00	6.9195	0.477	6.900	ug/L
	Rb	85	4931.847	0.02				mg/L
	Y	89	238595.253	24800.86				ug/L
	Rh	103	10.667	-3.00				ug/L
	Mo	98	530.958	0.00	0.2350	0.015	6.475	ug/L
	Ag	107	25789.847	0.09	6.4545	0.217	3.358	ug/L
	Cd	114	5931.199	0.02	6.4655	0.432	6.679	ug/L
>	In	115	276414.446	276414.45				ug/L
	Sn	118	246.937	0.00	-0.0006	0.002	296.976	ug/L
	Sb	123	8728.709	0.03	2.8898	0.171	5.919	ug/L
	Ba	135	25342.502	0.07	22.0814	1.399	6.335	ug/L
	Ce	140	140309.368	0.36				ug/L
>	Tb	159	388400.318	388400.32				ug/L
	Ho	165	1873.732	0.01				ug/L
	Tl	203	31165.025	0.10	6.3374	0.484	7.636	ug/L
	Tl	205	76939.133	0.25	6.3429	0.482	7.604	ug/L
	Pb	206	36691.433	0.12	9.1832	0.488	5.314	ug/L
	Pb	207	31786.346	0.10	8.5081	0.604	7.093	ug/L
	Pb	208	148448.807	0.48	8.8536	0.642	7.253	ug/L
	U	238	168023.639	0.54	7.0015	0.451	6.438	ug/L
>	Bi	209	310000.174	310000.17				ug/L

Sample ID: L1201079519S WG388442-04
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Na	23	54560.650	0.26	0.0098	0.001	14.395	mg/L
Mg	24	1341540.702	9.46	0.6809	0.042	6.131	mg/L
K	39	716000.488	1.56	0.0422	0.007	16.925	mg/L
Ca	43	31121.284	0.22	3.1356	0.261	8.323	mg/L
Fe	54	1015507.951	6.96	2.5600	0.215	8.381	mg/L
Fe	57	401363.829	2.78	2.2304	0.195	8.749	mg/L
Sc-1	45	141830.753	141830.75				mg/L
Cl	35	18580.028	-3902.26				mg/L
Kr	83	51.001	3.67				mg/L
Br	81	6374.441	204.15				mg/L
P	31	68560.083	60620.90				mg/L
S	34	122614.990	-17436.67				mg/L
Sr	88	49337.727	49281.05				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		95.982			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.038			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		95.463			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		95.646			

Sample ID: L1201079519S WG388442-04
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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: L1201079519S WG388442-04
Report Date/Time: Wednesday, February 01, 2012 16:11:38
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201079519SD WG388442-05

Sample Date/Time: Wednesday, February 01, 2012 16:17:13
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 16
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	8420.938	-0.01				ug/L
	Be	9	1279.432	0.01	5.7810	0.354	6.115	ug/L
	Al	27	2600197.165	18.97	778.0585	79.749	10.250	ug/L
>	Sc	45	137138.323	137138.32				ug/L
	Ti	49	4558.390	0.01	12.8845	1.870	14.511	ug/L
	V	51	59633.034	0.19	9.4781	0.871	9.193	ug/L
	Cr	52	48737.626	0.14	8.0751	0.801	9.922	ug/L
	Cr	53	5549.080	0.02	7.7392	0.710	9.170	ug/L
	Mn	55	355135.408	1.14	42.2784	4.200	9.935	ug/L
	Co	59	42043.333	0.13	6.4908	0.581	8.955	ug/L
	Ni	60	11105.238	0.04	8.2999	0.823	9.912	ug/L
	Cu	65	10637.637	0.03	8.2429	0.955	11.589	ug/L
	Zn	66	10386.977	0.03	13.5549	1.530	11.289	ug/L
>	Ge	72	311493.697	311493.70				ug/L
	As	75	4632.611	0.02	5.7333	0.697	12.161	ug/L
	Se	77	477.347	0.00	6.7279	0.368	5.466	ug/L
	Se	82	482.219	0.00	6.2593	0.755	12.061	ug/L
	Rb	85	4658.361	0.01				mg/L
	Y	89	231189.214	17394.82				ug/L
	Rh	103	10.000	-3.67				ug/L
	Mo	98	393.762	0.00	0.1670	0.021	12.701	ug/L
	Ag	107	22758.187	0.08	5.7521	0.588	10.225	ug/L
	Cd	114	5296.161	0.02	5.8343	0.724	12.414	ug/L
>	In	115	273395.037	273395.04				ug/L
	Sn	118	233.070	0.00	-0.0042	0.002	52.092	ug/L
	Sb	123	8034.049	0.03	2.6887	0.225	8.374	ug/L
	Ba	135	20778.946	0.05	18.4494	2.073	11.235	ug/L
	Ce	140	111751.409	0.29				ug/L
>	Tb	159	381117.425	381117.43				ug/L
	Ho	165	1730.353	0.01				ug/L
	Tl	203	27780.134	0.09	5.6471	0.538	9.534	ug/L
	Tl	205	68039.457	0.22	5.6080	0.671	11.966	ug/L
	Pb	206	30622.643	0.10	7.6543	0.893	11.669	ug/L
	Pb	207	26507.347	0.08	7.0850	0.760	10.731	ug/L
	Pb	208	123204.108	0.40	7.3377	0.788	10.734	ug/L
	U	238	149544.271	0.48	6.2268	0.805	12.923	ug/L
>	Bi	209	309971.344	309971.34				ug/L

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Na	23	51386.732	0.25	0.0094	0.001	9.222	mg/L
Mg	24	1164491.740	8.49	0.6100	0.042	6.884	mg/L
K	39	651049.361	1.26	0.0326	0.006	18.446	mg/L
Ca	43	28866.586	0.21	3.0015	0.273	9.085	mg/L
Fe	54	783032.502	5.49	2.0190	0.175	8.645	mg/L
Fe	57	319063.473	2.27	1.8229	0.116	6.352	mg/L
Sc-1	45	137138.323	137138.32				mg/L
Cl	35	18507.865	-3974.42				mg/L
Kr	83	54.001	6.67				mg/L
Br	81	6210.313	40.03				mg/L
P	31	70217.530	62278.35				mg/L
S	34	121278.245	-18773.42				mg/L
Sr	88	41829.465	41772.79				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		96.388			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		93.010			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		93.673			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		95.638			

Sample ID: L1201079519SD WG388442-05
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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: L1201079519SD WG388442-05
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Method 6020 - Summary Report

Sample ID: L1201076308

Sample Date/Time: Wednesday, February 01, 2012 16:25:01
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 17
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	9438.711	0.00				ug/L
	Be	9	15060.278	0.11	71.6250	5.401	7.540	ug/L
	Al	27	6142023.291	46.28	1898.5253	119.958	6.318	ug/L
>	Sc	45	132885.659	132885.66				ug/L
	Ti	49	3764.560	0.01	10.9410	0.391	3.574	ug/L
	V	51	257640.954	0.85	43.2972	1.211	2.797	ug/L
	Cr	52	380286.187	1.24	72.5951	2.295	3.162	ug/L
	Cr	53	44456.255	0.15	70.8334	2.919	4.121	ug/L
	Mn	55	1570791.169	5.20	193.0970	4.849	2.511	ug/L
	Co	59	525306.006	1.74	84.1361	1.976	2.348	ug/L
	Ni	60	56494.006	0.19	43.7962	1.544	3.526	ug/L
	Cu	65	91866.296	0.30	74.2848	2.990	4.025	ug/L
	Zn	66	128769.293	0.43	175.2388	6.006	3.428	ug/L
>	Ge	72	302189.269	302189.27				ug/L
	As	75	85202.823	0.28	105.7382	4.113	3.890	ug/L
	Se	77	4940.799	0.02	81.1964	1.923	2.369	ug/L
	Se	82	6100.848	0.02	81.2570	2.838	3.492	ug/L
	Rb	85	36894.274	0.12				mg/L
	Y	89	234908.711	21114.32				ug/L
	Rh	103	42.334	28.67				ug/L
	Mo	98	47629.805	0.18	25.0184	1.309	5.232	ug/L
	Ag	107	97137.529	0.36	25.1178	0.874	3.481	ug/L
	Cd	114	58409.911	0.22	65.7322	2.801	4.261	ug/L
>	In	115	269127.739	269127.74				ug/L
	Sn	118	42542.500	0.16	13.6759	0.741	5.422	ug/L
	Sb	123	15036.893	0.06	5.1326	0.301	5.861	ug/L
	Ba	135	131334.684	0.35	117.6145	5.712	4.856	ug/L
	Ce	140	234310.707	0.62				ug/L
>	Tb	159	378711.092	378711.09				ug/L
	Ho	165	2517.299	0.01				ug/L
	Tl	203	621464.479	2.03	128.0588	5.967	4.660	ug/L
	Tl	205	1525921.717	4.98	127.2917	8.671	6.812	ug/L
	Pb	206	193630.981	0.63	49.3001	1.587	3.218	ug/L
	Pb	207	171070.107	0.56	46.6052	1.346	2.887	ug/L
	Pb	208	796281.010	2.60	48.3194	1.403	2.904	ug/L
	U	238	12286.845	0.04	0.4899	0.008	1.716	ug/L
>	Bi	209	306194.202	306194.20				ug/L

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Na	23	563985.194	4.12	0.1862	0.014	7.324	mg/L
Mg	24	2004514.429	15.11	1.0897	0.068	6.273	mg/L
K	39	5616159.642	38.86	1.2341	0.105	8.486	mg/L
Ca	43	39976.446	0.30	4.3155	0.372	8.614	mg/L
Fe	54	1507937.561	11.16	4.1075	0.272	6.621	mg/L
Fe	57	602131.918	4.49	3.6051	0.342	9.488	mg/L
Sc-1	45	132885.659	132885.66				mg/L
Cl	35	33855.307	11373.02				mg/L
Kr	83	56.334	9.00				mg/L
Br	81	6876.841	706.55				mg/L
P	31	69088.298	61149.12				mg/L
S	34	111202.396	-28849.26				mg/L
Sr	88	601396.201	601339.53				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		93.509			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		91.559			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		93.081			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.472			

Sample ID: L1201076308
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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	
Zn 66 Upper, S, EEE	Zn	66	
As 75 Upper, S, EEE	As	75	
Ba 135 Upper, S, EEE	Ba	135	
Tl 203 Upper, S, EEE	Tl	203	

Sample ID: L1201076308
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Method 6020 - Summary Report

Sample ID: L1201079501

Sample Date/Time: Wednesday, February 01, 2012 16:32:48
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 18
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	8721.232	-0.00				ug/L
	Be	9	44.000	0.00	0.0774	0.036	46.361	ug/L
	Al	27	6493810.222	46.73	1916.9346	224.827	11.728	ug/L
>	Sc	45	139203.577	139203.58				ug/L
	Ti	49	1076.844	0.00	2.8077	0.218	7.754	ug/L
	V	51	33697.503	0.10	5.2377	0.203	3.882	ug/L
	Cr	52	33176.342	0.09	5.1689	0.228	4.420	ug/L
	Cr	53	3897.981	0.01	5.1670	0.864	16.718	ug/L
	Mn	55	2567656.595	8.26	306.7985	11.603	3.782	ug/L
	Co	59	25359.150	0.08	3.9103	0.114	2.918	ug/L
	Ni	60	15329.931	0.05	11.5104	0.460	3.998	ug/L
	Cu	65	16789.421	0.05	13.1096	0.460	3.506	ug/L
	Zn	66	34916.111	0.11	46.0633	1.514	3.286	ug/L
>	Ge	72	310893.792	310893.79				ug/L
	As	75	2049.176	0.01	2.6402	0.039	1.493	ug/L
	Se	77	66.667	0.00	0.0998	0.103	102.723	ug/L
	Se	82	6.493	0.00	0.1232	0.093	75.217	ug/L
	Rb	85	26703.391	0.09				mg/L
	Y	89	250304.018	36509.63				ug/L
	Rh	103	18.667	5.00				ug/L
	Mo	98	1157.732	0.00	0.5678	0.045	7.925	ug/L
	Ag	107	135.336	0.00	-0.0123	0.004	34.168	ug/L
	Cd	114	128.854	0.00	0.1132	0.005	4.778	ug/L
>	In	115	270956.090	270956.09				ug/L
	Sn	118	215.603	0.00	-0.0091	0.001	14.539	ug/L
	Sb	123	72.989	0.00	0.0054	0.003	54.070	ug/L
	Ba	135	19476.960	0.05	17.3313	0.522	3.012	ug/L
	Ce	140	145736.875	0.38				ug/L
>	Tb	159	379964.333	379964.33				ug/L
	Ho	165	2914.135	0.01				ug/L
	Tl	203	2269.337	0.01	0.4632	0.076	16.432	ug/L
	Tl	205	5539.104	0.02	0.4670	0.089	19.098	ug/L
	Pb	206	103817.296	0.34	26.5745	1.321	4.972	ug/L
	Pb	207	85835.079	0.28	23.5045	1.276	5.428	ug/L
	Pb	208	407360.275	1.34	24.8493	1.439	5.792	ug/L
	U	238	8014.938	0.03	0.3111	0.017	5.437	ug/L
>	Bi	209	304311.789	304311.79				ug/L

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Na	23	133532.531	0.83	0.0361	0.003	8.479	mg/L
Mg	24	3226617.426	23.21	1.6764	0.122	7.267	mg/L
K	39	1826439.371	9.63	0.2999	0.013	4.178	mg/L
Ca	43	180469.539	1.30	18.6754	1.638	8.769	mg/L
Fe	54	3176461.891	22.64	8.3407	0.763	9.144	mg/L
Fe	57	1511403.052	10.82	8.6886	0.518	5.958	mg/L
Sc-1	45	139203.577	139203.58				mg/L
Cl	35	21109.372	-1372.91				mg/L
Kr	83	58.334	11.00				mg/L
Br	81	5906.096	-264.19				mg/L
P	31	44095.768	36156.59				mg/L
S	34	151830.510	11778.85				mg/L
Sr	88	223388.037	223331.36				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		96.203			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		92.181			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		93.389			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		93.891			

Sample ID: L1201079501
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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: L1201079501
Report Date/Time: Wednesday, February 01, 2012 16:35:01
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201079501PS WG388491-01

Sample Date/Time: Wednesday, February 01, 2012 16:40:36
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 19
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	8754.601	-0.00				ug/L
	Be	9	10547.343	0.08	49.5041	1.227	2.479	ug/L
	Al	27	5823649.814	43.36	1778.7315	18.860	1.060	ug/L
>	Sc	45	134273.191	134273.19				ug/L
	Ti	49	916.809	0.00	2.3979	0.016	0.681	ug/L
	V	51	319965.801	1.05	53.4554	1.233	2.307	ug/L
	Cr	52	285408.650	0.92	53.8177	1.196	2.222	ug/L
	Cr	53	33728.158	0.11	53.1216	0.537	1.010	ug/L
	Mn	55	2550136.321	8.38	311.2183	1.667	0.536	ug/L
	Co	59	331118.265	1.09	52.6336	1.160	2.203	ug/L
	Ni	60	76876.406	0.25	59.1851	0.298	0.503	ug/L
	Cu	65	76970.948	0.25	61.7699	0.314	0.508	ug/L
	Zn	66	69804.519	0.23	94.2264	1.152	1.222	ug/L
>	Ge	72	304460.002	304460.00				ug/L
	As	75	43245.872	0.14	53.3672	0.818	1.533	ug/L
	Se	77	3326.664	0.01	53.9474	1.781	3.301	ug/L
	Se	82	4021.871	0.01	53.1881	0.879	1.652	ug/L
	Rb	85	23162.711	0.08				mg/L
	Y	89	235340.088	21545.70				ug/L
	Rh	103	27.334	13.67				ug/L
	Mo	98	1029.823	0.00	0.5108	0.019	3.734	ug/L
	Ag	107	197296.137	0.74	51.6169	0.680	1.317	ug/L
	Cd	114	44742.733	0.17	50.8865	0.810	1.591	ug/L
>	In	115	266239.745	266239.75				ug/L
	Sn	118	239.470	0.00	-0.0001	0.006	5812.067	ug/L
	Sb	123	143841.058	0.54	49.7898	0.538	1.080	ug/L
	Ba	135	71152.571	0.19	64.4914	1.193	1.849	ug/L
	Ce	140	127798.789	0.34				ug/L
>	Tb	159	374026.911	374026.91				ug/L
	Ho	165	2503.960	0.01				ug/L
	Tl	203	240911.031	0.79	50.1408	0.262	0.523	ug/L
	Tl	205	600169.727	1.98	50.5754	1.460	2.886	ug/L
	Pb	206	290317.672	0.96	74.6897	0.854	1.144	ug/L
	Pb	207	250819.487	0.83	69.0495	0.445	0.644	ug/L
	Pb	208	1171930.613	3.86	71.8592	0.515	0.717	ug/L
	U	238	1221369.059	4.03	52.2374	0.797	1.525	ug/L
>	Bi	209	303156.192	303156.19				ug/L

Sample ID: L1201079501PS WG388491-01
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Na	23	128090.117	0.82	0.0358	0.001	2.601	mg/L
Mg	24	2904080.603	21.62	1.5618	0.029	1.842	mg/L
K	39	1768339.788	9.68	0.3016	0.005	1.522	mg/L
Ca	43	155723.708	1.16	16.6791	0.071	0.425	mg/L
Fe	54	2790026.689	20.57	7.5763	0.062	0.814	mg/L
Fe	57	1266383.043	9.38	7.5339	0.078	1.032	mg/L
Sc-1	45	134273.191	134273.19				mg/L
Cl	35	18592.723	-3889.56				mg/L
Kr	83	57.667	10.33				mg/L
Br	81	6016.839	-153.45				mg/L
P	31	38108.279	30169.10				mg/L
S	34	133867.378	-6184.28				mg/L
Sr	88	191651.541	191594.87				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		94.212			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		90.576			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		91.930			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		93.535			

Sample ID: L1201079501PS WG388491-01
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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
Mn 55 Upper, S, EEE	Mn	55	

Sample ID: L1201079501PS WG388491-01
Report Date/Time: Wednesday, February 01, 2012 16:42:49
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Method 6020 - Summary Report

Sample ID: L1201079501SDL WG388491-02

Sample Date/Time: Wednesday, February 01, 2012 16:48:24
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 20
Method File: C:\elandata\Method\6020a.mth
Sample Description: 25

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	8871.402	-0.00				ug/L
	Be	9	18.667	0.00	-0.0335	0.016	47.535	ug/L
	Al	27	1106162.865	8.26	339.0412	14.456	4.264	ug/L
>	Sc	45	133852.032	133852.03				ug/L
	Ti	49	186.688	0.00	0.2263	0.165	73.029	ug/L
	V	51	6348.617	0.02	0.7550	0.038	5.022	ug/L
	Cr	52	8982.262	0.01	0.6391	0.022	3.373	ug/L
	Cr	53	1066.842	0.00	0.7515	0.169	22.487	ug/L
	Mn	55	407810.660	1.33	49.4408	1.426	2.884	ug/L
	Co	59	3770.224	0.01	0.5567	0.008	1.417	ug/L
	Ni	60	2290.671	0.01	1.6994	0.009	0.529	ug/L
	Cu	65	2594.096	0.01	1.9685	0.049	2.486	ug/L
	Zn	66	5999.886	0.02	7.9093	0.102	1.284	ug/L
>	Ge	72	306281.677	306281.68				ug/L
	As	75	210.772	0.00	0.4290	0.021	4.972	ug/L
	Se	77	74.000	0.00	0.2369	0.332	140.307	ug/L
	Se	82	3.203	-0.00	0.0809	0.042	51.779	ug/L
	Rb	85	3946.641	0.01				mg/L
	Y	89	204288.732	-9505.66				ug/L
	Rh	103	7.333	-6.33				ug/L
	Mo	98	178.679	0.00	0.0574	0.003	4.872	ug/L
	Ag	107	110.002	0.00	-0.0186	0.003	17.916	ug/L
	Cd	114	22.304	0.00	-0.0058	0.011	189.231	ug/L
>	In	115	268961.777	268961.78				ug/L
	Sn	118	177.735	-0.00	-0.0208	0.005	22.210	ug/L
	Sb	123	201.790	0.00	0.0498	0.012	24.893	ug/L
	Ba	135	2843.514	0.01	2.5444	0.030	1.178	ug/L
	Ce	140	21583.417	0.06				ug/L
>	Tb	159	370988.493	370988.49				ug/L
	Ho	165	500.066	0.00				ug/L
	Tl	203	208.671	0.00	0.0367	0.006	16.323	ug/L
	Tl	205	503.399	0.00	0.0450	0.006	12.472	ug/L
	Pb	206	15617.777	0.05	4.0378	0.043	1.072	ug/L
	Pb	207	13119.785	0.04	3.6230	0.058	1.609	ug/L
	Pb	208	61619.988	0.20	3.7938	0.010	0.259	ug/L
	U	238	1410.467	0.00	0.0308	0.002	6.382	ug/L
>	Bi	209	297805.515	297805.51				ug/L

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Na	23	33272.978	0.12	0.0036	0.001	23.928	mg/L
Mg	24	534861.312	4.00	0.2849	0.012	4.314	mg/L
K	39	628594.993	1.21	0.0310	0.004	13.804	mg/L
Ca	43	27585.028	0.20	2.9441	0.113	3.836	mg/L
Fe	54	525833.415	3.72	1.3688	0.077	5.637	mg/L
Fe	57	221637.373	1.61	1.2881	0.080	6.199	mg/L
Sc-1	45	133852.032	133852.03				mg/L
Cl	35	17086.170	-5396.12				mg/L
Kr	83	53.334	6.00				mg/L
Br	81	5247.653	-922.63				mg/L
P	31	9359.920	1420.74				mg/L
S	34	117103.224	-22948.44				mg/L
Sr	88	32235.461	32178.79				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		94.776			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		91.502			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		91.183			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		91.884			

Sample ID: L1201079501SDL WG388491-02
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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: L1201079501SDL WG388491-02
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 01, 2012 16:56:13
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	8137.319	-0.01				ug/L
	Be	9	10660.830	0.08	48.0261	3.023	6.294	ug/L
	Al	27	167449.368	1.18	48.6014	1.292	2.658	ug/L
>	Sc	45	139966.190	139966.19				ug/L
	Ti	49	35827.094	0.11	100.8151	2.059	2.042	ug/L
	V	51	304232.239	0.94	48.2834	0.469	0.971	ug/L
	Cr	52	271962.345	0.83	48.6413	0.426	0.875	ug/L
	Cr	53	32700.634	0.10	48.8904	0.715	1.462	ug/L
	Mn	55	426086.667	1.33	49.4022	0.916	1.853	ug/L
	Co	59	329507.260	1.03	49.7863	0.254	0.509	ug/L
	Ni	60	66853.211	0.21	48.9163	1.161	2.373	ug/L
	Cu	65	64960.209	0.20	49.5434	1.079	2.178	ug/L
	Zn	66	38339.399	0.12	49.1183	0.532	1.083	ug/L
>	Ge	72	320292.571	320292.57				ug/L
	As	75	41950.650	0.13	49.2277	0.990	2.011	ug/L
	Se	77	3195.279	0.01	49.1882	1.987	4.040	ug/L
	Se	82	3940.186	0.01	49.5307	0.668	1.348	ug/L
	Rb	85	1574.498	0.00				mg/L
	Y	89	211960.011	-1834.38				ug/L
	Rh	103	52.001	38.33				ug/L
	Mo	98	201651.831	0.71	100.5315	1.887	1.877	ug/L
	Ag	107	208016.553	0.73	51.0497	1.336	2.618	ug/L
	Cd	114	44172.197	0.16	47.1220	0.717	1.522	ug/L
>	In	115	283829.772	283829.77				ug/L
	Sn	118	160748.331	0.57	49.1945	0.358	0.728	ug/L
	Sb	123	150433.968	0.53	48.8471	0.582	1.191	ug/L
	Ba	135	58465.367	0.15	49.5683	1.577	3.182	ug/L
	Ce	140	186.687	0.00				ug/L
>	Tb	159	399819.701	399819.70				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	245834.935	0.78	49.4544	0.642	1.299	ug/L
	Tl	205	595001.129	1.90	48.4608	0.176	0.363	ug/L
	Pb	206	196318.421	0.63	48.7998	1.108	2.271	ug/L
	Pb	207	185692.213	0.59	49.3901	0.391	0.791	ug/L
	Pb	208	829086.624	2.64	49.1165	0.438	0.891	ug/L
	U	238	1285579.128	4.10	53.1411	1.001	1.884	ug/L
>	Bi	209	313653.940	313653.94				ug/L

Sample ID: QC Std 6
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Na	23	14729398.991	105.19	4.7952	0.307	6.399	mg/L
Mg	24	9398244.907	67.22	4.8650	0.315	6.476	mg/L
K	39	22338466.658	156.16	4.9821	0.098	1.964	mg/L
Ca	43	47731.320	0.34	4.8819	0.130	2.671	mg/L
Fe	54	1856323.347	13.05	4.8071	0.102	2.111	mg/L
Fe	57	857702.359	6.08	4.8818	0.173	3.552	mg/L
Sc-1	45	139966.190	139966.19				mg/L
Cl	35	19144.637	-3337.65				mg/L
Kr	83	55.001	7.67				mg/L
Br	81	6033.517	-136.77				mg/L
P	31	8006.519	67.34				mg/L
S	34	132796.439	-7255.22				mg/L
Sr	88	3471.072	3414.40				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	96.567				
Cr	52	97.283				
Cr	53					
Mn	55	98.804				
Co	59	99.573				
Ni	60	97.833				
Cu	65	99.087				
Zn	66	98.237				
Ge	72		99.111			
As	75	98.455				
Se	77					
Se	82	99.061				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	102.099				
Cd	114	94.244				
In	115		96.560			
Sn	118					
Sb	123	97.694				
Ba	135	99.137				
Ce	140					
Tb	159		98.269			
Ho	165					
Tl	203	98.909				
Tl	205					
Pb	206					
Pb	207					
Pb	208	98.233				
U	238	106.282				
Bi	209		96.774			

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: Wednesday, February 01, 2012 16:58:26
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 01, 2012 17:03:50
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	9405.358	-0.00				ug/L
	Be	9	6.000	-0.00	-0.0950	0.009	9.006	ug/L
	Al	27	3133.931	0.01	0.4242	0.116	27.428	ug/L
>	Sc	45	140237.030	140237.03				ug/L
	Ti	49	40.004	-0.00	-0.2093	0.029	14.039	ug/L
	V	51	1748.795	-0.00	-0.0213	0.009	41.696	ug/L
	Cr	52	5839.771	0.00	0.0077	0.017	216.379	ug/L
	Cr	53	573.412	0.00	-0.0613	0.283	461.670	ug/L
	Mn	55	275.007	0.00	-0.0101	0.001	7.159	ug/L
	Co	59	80.335	0.00	-0.0271	0.001	2.541	ug/L
	Ni	60	30.667	0.00	-0.0325	0.003	9.541	ug/L
	Cu	65	92.001	0.00	-0.0328	0.004	11.948	ug/L
	Zn	66	91.668	0.00	-0.0349	0.019	54.581	ug/L
>	Ge	72	314897.902	314897.90				ug/L
	As	75	-129.927	0.00	0.0170	0.047	278.037	ug/L
	Se	77	54.000	-0.00	-0.1171	0.258	219.986	ug/L
	Se	82	4.568	0.00	0.0973	0.202	207.503	ug/L
	Rb	85	26.000	-0.00				mg/L
	Y	89	209485.324	-4309.07				ug/L
	Rh	103	13.000	-0.67				ug/L
	Mo	98	75.234	0.00	0.0008	0.007	879.395	ug/L
	Ag	107	61.668	0.00	-0.0321	0.002	6.474	ug/L
	Cd	114	2.734	0.00	-0.0281	0.004	12.878	ug/L
>	In	115	284705.125	284705.13				ug/L
	Sn	118	256.004	0.00	-0.0001	0.004	3500.915	ug/L
	Sb	123	61.201	0.00	0.0005	0.003	690.164	ug/L
	Ba	135	43.667	0.00	-0.0191	0.005	27.149	ug/L
	Ce	140	120.013	0.00				ug/L
>	Tb	159	401241.323	401241.32				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	210.005	0.00	0.0349	0.002	5.531	ug/L
	Tl	205	596.749	0.00	0.0507	0.013	26.426	ug/L
	Pb	206	209.671	0.00	-0.0035	0.005	142.348	ug/L
	Pb	207	165.337	0.00	-0.0129	0.001	11.123	ug/L
	Pb	208	818.024	0.00	-0.0067	0.001	19.609	ug/L
	U	238	123.669	0.00	-0.0255	0.000	0.489	ug/L
>	Bi	209	312598.057	312598.06				ug/L

Sample ID: QC Std 7
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Na	23	14804.635	-0.02	-0.0029	0.000	9.735	mg/L
Mg	24	733.439	0.00	-0.0046	0.000	0.758	mg/L
K	39	417304.272	-0.51	-0.0241	0.002	8.996	mg/L
Ca	43	186.687	-0.00	-0.0094	0.002	19.438	mg/L
Fe	54	31013.196	0.01	-0.0003	0.004	1206.479	mg/L
Fe	57	6356.393	-0.01	-0.0091	0.002	17.657	mg/L
Sc-1	45	140237.030	140237.03				mg/L
Cl	35	18771.122	-3711.16				mg/L
Kr	83	49.667	2.33				mg/L
Br	81	6306.387	136.10				mg/L
P	31	8992.926	1053.75				mg/L
S	34	117356.790	-22694.87				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		97.442			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		96.858			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.619			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.448			

Sample ID: QC Std 7
Report Date/Time: Wednesday, February 01, 2012 17:06:02
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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: QC Std 7
Report Date/Time: Wednesday, February 01, 2012 17:06:02
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201079502

Sample Date/Time: Wednesday, February 01, 2012 17:11:26
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 21
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	8220.751	-0.01				ug/L
	Be	9	36.667	0.00	0.0423	0.020	47.812	ug/L
	Al	27	7237101.963	51.26	2102.7189	30.011	1.427	ug/L
>	Sc	45	141186.481	141186.48				ug/L
	Ti	49	943.482	0.00	2.4010	0.354	14.760	ug/L
	V	51	36701.393	0.11	5.6998	0.088	1.549	ug/L
	Cr	52	32393.537	0.09	4.9890	0.109	2.184	ug/L
	Cr	53	3744.551	0.01	4.8958	0.305	6.235	ug/L
	Mn	55	2229773.787	7.13	264.9836	5.204	1.964	ug/L
	Co	59	35416.575	0.11	5.4458	0.198	3.634	ug/L
	Ni	60	14806.294	0.05	11.0565	0.130	1.178	ug/L
	Cu	65	7152.474	0.02	5.4968	0.159	2.894	ug/L
	Zn	66	17947.164	0.06	23.4797	0.716	3.050	ug/L
>	Ge	72	312595.812	312595.81				ug/L
	As	75	1848.656	0.01	2.3862	0.122	5.101	ug/L
	Se	77	82.000	0.00	0.3406	0.050	14.575	ug/L
	Se	82	-1.206	-0.00	0.0247	0.149	603.657	ug/L
	Rb	85	25828.899	0.08				mg/L
	Y	89	244935.416	31141.02				ug/L
	Rh	103	18.000	4.33				ug/L
	Mo	98	634.341	0.00	0.2870	0.008	2.699	ug/L
	Ag	107	114.002	0.00	-0.0185	0.002	9.233	ug/L
	Cd	114	38.084	0.00	0.0107	0.002	14.318	ug/L
>	In	115	277335.015	277335.02				ug/L
	Sn	118	201.736	-0.00	-0.0151	0.001	6.633	ug/L
	Sb	123	82.199	0.00	0.0080	0.003	33.471	ug/L
	Ba	135	17699.295	0.05	15.5293	0.226	1.455	ug/L
	Ce	140	143825.418	0.37				ug/L
>	Tb	159	385277.055	385277.06				ug/L
	Ho	165	2700.708	0.01				ug/L
	Tl	203	262.673	0.00	0.0466	0.005	10.161	ug/L
	Tl	205	626.753	0.00	0.0541	0.002	4.166	ug/L
	Pb	206	46566.927	0.15	11.8053	0.300	2.537	ug/L
	Pb	207	42271.077	0.14	11.4633	0.214	1.866	ug/L
	Pb	208	193129.346	0.63	11.6677	0.243	2.082	ug/L
	U	238	4591.311	0.01	0.1637	0.003	1.718	ug/L
>	Bi	209	306444.058	306444.06				ug/L

Sample ID: L1201079502
Report Date/Time: Wednesday, February 01, 2012 17:13:40
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Na	23	113299.628	0.67	0.0289	0.001	3.826	mg/L
Mg	24	2147681.784	15.22	1.0978	0.047	4.310	mg/L
K	39	1813762.108	9.37	0.2915	0.016	5.520	mg/L
Ca	43	179021.806	1.27	18.2551	1.072	5.875	mg/L
Fe	54	3044610.642	21.37	7.8722	0.402	5.106	mg/L
Fe	57	1403674.138	9.90	7.9493	0.333	4.185	mg/L
Sc-1	45	141186.481	141186.48				mg/L
Cl	35	17772.941	-4709.35				mg/L
Kr	83	62.001	14.67				mg/L
Br	81	6300.381	130.09				mg/L
P	31	46592.637	38653.46				mg/L
S	34	131582.726	-8468.93				mg/L
Sr	88	174946.331	174889.66				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		96.729			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.351			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		94.695			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.549			

Sample ID: L1201079502
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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: L1201079503

Sample Date/Time: Wednesday, February 01, 2012 17:19:15
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 22
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	9555.488	-0.00				ug/L
	Be	9	26.000	0.00	-0.0082	0.011	131.574	ug/L
	Al	27	4945821.637	34.13	1400.0847	36.115	2.580	ug/L
>	Sc	45	144766.457	144766.46				ug/L
	Ti	49	10110.483	0.03	28.2532	1.233	4.364	ug/L
	V	51	30379.709	0.09	4.5524	0.290	6.377	ug/L
	Cr	52	19308.245	0.04	2.4565	0.163	6.615	ug/L
	Cr	53	2020.449	0.00	2.1325	0.282	13.203	ug/L
	Mn	55	283263.949	0.88	32.8618	1.889	5.749	ug/L
	Co	59	7346.985	0.02	1.0728	0.055	5.099	ug/L
	Ni	60	3714.199	0.01	2.6688	0.100	3.739	ug/L
	Cu	65	2150.299	0.01	1.5410	0.050	3.267	ug/L
	Zn	66	7346.984	0.02	9.2996	0.427	4.591	ug/L
>	Ge	72	319799.494	319799.49				ug/L
	As	75	634.934	0.00	0.9148	0.062	6.774	ug/L
	Se	77	76.000	0.00	0.2158	0.132	61.368	ug/L
	Se	82	3.835	0.00	0.0884	0.183	206.851	ug/L
	Rb	85	4832.451	0.02				mg/L
	Y	89	237645.753	23851.36				ug/L
	Rh	103	7.667	-6.00				ug/L
	Mo	98	488.951	0.00	0.2075	0.025	11.968	ug/L
	Ag	107	75.334	0.00	-0.0286	0.002	7.776	ug/L
	Cd	114	27.046	0.00	-0.0021	0.006	268.014	ug/L
>	In	115	283557.696	283557.70				ug/L
	Sn	118	276.271	0.00	0.0064	0.002	34.275	ug/L
	Sb	123	67.579	0.00	0.0026	0.001	57.297	ug/L
	Ba	135	7131.127	0.02	6.0733	0.323	5.311	ug/L
	Ce	140	126721.962	0.32				ug/L
>	Tb	159	394732.055	394732.06				ug/L
	Ho	165	2023.783	0.01				ug/L
	Tl	203	144.003	0.00	0.0212	0.002	11.024	ug/L
	Tl	205	380.047	0.00	0.0327	0.007	20.586	ug/L
	Pb	206	10165.314	0.03	2.4592	0.171	6.939	ug/L
	Pb	207	8256.845	0.03	2.1288	0.122	5.738	ug/L
	Pb	208	39388.797	0.12	2.2671	0.154	6.781	ug/L
	U	238	3699.861	0.01	0.1215	0.012	9.949	ug/L
>	Bi	209	315542.054	315542.05				ug/L

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Na	23	45974.452	0.19	0.0068	0.001	9.628	mg/L
Mg	24	586795.712	4.06	0.2891	0.010	3.423	mg/L
K	39	688372.276	1.27	0.0330	0.007	20.091	mg/L
Ca	43	8201.537	0.06	0.7886	0.061	7.768	mg/L
Fe	54	1403360.713	9.48	3.4909	0.069	1.976	mg/L
Fe	57	576694.422	3.93	3.1575	0.085	2.696	mg/L
Sc-1	45	144766.457	144766.46				mg/L
Cl	35	18427.688	-4054.60				mg/L
Kr	83	57.334	10.00				mg/L
Br	81	6214.319	44.03				mg/L
P	31	42395.014	34455.83				mg/L
S	34	118384.321	-21667.34				mg/L
Sr	88	23632.610	23575.94				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		98.959			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		96.468			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		97.019			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		97.356			

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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: L1201079503
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Method 6020 - Summary Report

Sample ID: L1201079504

Sample Date/Time: Wednesday, February 01, 2012 17:27:03
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 23
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	7953.802	-0.01				ug/L
	Be	9	16.667	0.00	-0.0463	0.010	21.651	ug/L
	Al	27	4412971.612	31.53	1293.5426	49.945	3.861	ug/L
>	Sc	45	140002.315	140002.31				ug/L
	Ti	49	7904.554	0.03	22.7775	1.825	8.011	ug/L
	V	51	26804.208	0.08	4.1274	0.236	5.718	ug/L
	Cr	52	17785.170	0.04	2.2888	0.157	6.864	ug/L
	Cr	53	1837.054	0.00	1.9487	0.288	14.804	ug/L
	Mn	55	379215.501	1.23	45.5136	2.304	5.062	ug/L
	Co	59	7583.200	0.02	1.1480	0.072	6.246	ug/L
	Ni	60	4169.422	0.01	3.1075	0.232	7.480	ug/L
	Cu	65	3951.977	0.01	3.0228	0.114	3.764	ug/L
	Zn	66	12655.088	0.04	16.6875	1.013	6.072	ug/L
>	Ge	72	309265.729	309265.73				ug/L
	As	75	710.103	0.00	1.0314	0.048	4.653	ug/L
	Se	77	78.000	0.00	0.2893	0.027	9.177	ug/L
	Se	82	12.165	0.00	0.1975	0.080	40.643	ug/L
	Rb	85	6238.070	0.02				mg/L
	Y	89	228043.416	14249.02				ug/L
	Rh	103	7.000	-6.67				ug/L
	Mo	98	460.104	0.00	0.2043	0.031	15.057	ug/L
	Ag	107	59.001	0.00	-0.0320	0.001	3.797	ug/L
	Cd	114	98.419	0.00	0.0791	0.018	22.217	ug/L
>	In	115	270413.086	270413.09				ug/L
	Sn	118	210.803	0.00	-0.0105	0.004	34.791	ug/L
	Sb	123	75.745	0.00	0.0064	0.003	43.124	ug/L
	Ba	135	6713.107	0.02	5.9946	0.261	4.348	ug/L
	Ce	140	125343.478	0.33				ug/L
>	Tb	159	376405.977	376405.98				ug/L
	Ho	165	1733.688	0.01				ug/L
	Tl	203	135.336	0.00	0.0207	0.000	2.303	ug/L
	Tl	205	326.706	0.00	0.0295	0.004	15.203	ug/L
	Pb	206	26286.002	0.09	6.7366	0.220	3.259	ug/L
	Pb	207	21283.033	0.07	5.8283	0.202	3.458	ug/L
	Pb	208	101953.189	0.34	6.2237	0.207	3.333	ug/L
	U	238	3680.850	0.01	0.1274	0.006	4.572	ug/L
>	Bi	209	302116.319	302116.32				ug/L

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Na	23	50216.048	0.23	0.0086	0.000	3.069	mg/L
Mg	24	711756.415	5.09	0.3638	0.024	6.578	mg/L
K	39	768966.052	2.01	0.0566	0.008	14.075	mg/L
Ca	43	11599.231	0.08	1.1668	0.051	4.396	mg/L
Fe	54	1311043.820	9.16	3.3710	0.053	1.579	mg/L
Fe	57	537879.832	3.79	3.0422	0.040	1.299	mg/L
Sc-1	45	140002.315	140002.31				mg/L
Cl	35	17202.413	-5279.87				mg/L
Kr	83	57.667	10.33				mg/L
Br	81	5915.435	-254.85				mg/L
P	31	42525.102	34585.92				mg/L
S	34	104506.626	-35545.03				mg/L
Sr	88	26257.495	26200.82				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		95.699			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		91.996			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		92.515			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		93.214			

Sample ID: L1201079504
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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: L1201079504
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Method 6020 - Summary Report

Sample ID: L1201079505

Sample Date/Time: Wednesday, February 01, 2012 17:34:48
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 24
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	8854.720	-0.01				ug/L
	Be	9	46.667	0.00	0.0797	0.027	33.651	ug/L
	Al	27	6891493.369	47.10	1932.3240	102.962	5.328	ug/L
>	Sc	45	146171.193	146171.19				ug/L
	Ti	49	876.801	0.00	2.1384	0.285	13.307	ug/L
	V	51	33809.863	0.10	5.0682	0.437	8.630	ug/L
	Cr	52	33872.576	0.09	5.0848	0.424	8.334	ug/L
	Cr	53	4124.775	0.01	5.3077	0.716	13.488	ug/L
	Mn	55	1951651.128	6.06	225.3095	20.935	9.292	ug/L
	Co	59	40247.914	0.12	6.0163	0.562	9.341	ug/L
	Ni	60	18025.797	0.06	13.0841	1.387	10.599	ug/L
	Cu	65	15524.348	0.05	11.7003	1.079	9.221	ug/L
	Zn	66	24314.836	0.08	30.9451	2.725	8.806	ug/L
>	Ge	72	321877.000	321877.00				ug/L
	As	75	1735.590	0.01	2.1914	0.165	7.543	ug/L
	Se	77	60.667	0.00	-0.0319	0.225	703.687	ug/L
	Se	82	12.142	0.00	0.1917	0.279	145.415	ug/L
	Rb	85	30108.242	0.09				mg/L
	Y	89	235502.570	21708.18				ug/L
	Rh	103	18.000	4.33				ug/L
	Mo	98	454.282	0.00	0.1886	0.010	5.488	ug/L
	Ag	107	129.669	0.00	-0.0155	0.003	21.657	ug/L
	Cd	114	46.600	0.00	0.0185	0.006	34.363	ug/L
>	In	115	285344.665	285344.66				ug/L
	Sn	118	230.137	0.00	-0.0081	0.004	44.079	ug/L
	Sb	123	69.327	0.00	0.0030	0.003	92.014	ug/L
	Ba	135	14792.686	0.04	12.7579	1.156	9.061	ug/L
	Ce	140	110842.756	0.28				ug/L
>	Tb	159	391471.359	391471.36				ug/L
	Ho	165	2280.540	0.01				ug/L
	Tl	203	202.004	0.00	0.0334	0.005	14.095	ug/L
	Tl	205	486.730	0.00	0.0418	0.008	18.639	ug/L
	Pb	206	63912.148	0.20	15.9891	1.267	7.925	ug/L
	Pb	207	53334.770	0.17	14.2715	0.986	6.912	ug/L
	Pb	208	251266.846	0.81	14.9802	0.978	6.529	ug/L
	U	238	4077.713	0.01	0.1395	0.016	11.505	ug/L
>	Bi	209	310694.070	310694.07				ug/L

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Na	23	145891.871	0.87	0.0378	0.001	2.503	mg/L
Mg	24	2494247.209	17.05	1.2304	0.064	5.166	mg/L
K	39	1896319.162	9.49	0.2954	0.014	4.667	mg/L
Ca	43	196701.912	1.34	19.3278	2.105	10.890	mg/L
Fe	54	2854221.710	19.30	7.1102	0.366	5.144	mg/L
Fe	57	1324387.979	9.00	7.2298	0.442	6.113	mg/L
Sc-1	45	146171.193	146171.19				mg/L
Cl	35	19905.747	-2576.54				mg/L
Kr	83	60.334	13.00				mg/L
Br	81	5994.158	-176.13				mg/L
P	31	43557.990	35618.81				mg/L
S	34	149480.287	9428.63				mg/L
Sr	88	267709.339	267652.67				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		99.601			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		97.076			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.217			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		95.861			

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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: L1201079505
Report Date/Time: Wednesday, February 01, 2012 17:37:00
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Method 6020 - Summary Report

Sample ID: L1201079506

Sample Date/Time: Wednesday, February 01, 2012 17:42:34
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 25
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	8487.702	-0.01				ug/L
	Be	9	22.667	0.00	-0.0168	0.019	116.074	ug/L
	Al	27	3576374.377	26.25	1076.6916	60.491	5.618	ug/L
>	Sc	45	136204.073	136204.07				ug/L
	Ti	49	7180.484	0.02	20.9116	1.180	5.643	ug/L
	V	51	28460.579	0.09	4.4581	0.121	2.718	ug/L
	Cr	52	17651.863	0.04	2.3038	0.092	3.987	ug/L
	Cr	53	1887.071	0.00	2.0638	0.306	14.825	ug/L
	Mn	55	379854.133	1.24	46.1419	1.923	4.168	ug/L
	Co	59	7389.689	0.02	1.1315	0.064	5.660	ug/L
	Ni	60	4047.357	0.01	3.0514	0.103	3.374	ug/L
	Cu	65	2334.017	0.01	1.7647	0.078	4.434	ug/L
	Zn	66	7061.400	0.02	9.3556	0.488	5.220	ug/L
>	Ge	72	305610.732	305610.73				ug/L
	As	75	959.462	0.00	1.3471	0.061	4.560	ug/L
	Se	77	81.334	0.00	0.3595	0.183	50.832	ug/L
	Se	82	-0.206	-0.00	0.0362	0.008	21.004	ug/L
	Rb	85	6747.804	0.02				mg/L
	Y	89	235444.201	21649.81				ug/L
	Rh	103	8.667	-5.00				ug/L
	Mo	98	438.468	0.00	0.1887	0.016	8.508	ug/L
	Ag	107	73.334	0.00	-0.0286	0.002	5.572	ug/L
	Cd	114	35.066	0.00	0.0076	0.009	122.748	ug/L
>	In	115	275391.577	275391.58				ug/L
	Sn	118	204.936	-0.00	-0.0136	0.004	29.994	ug/L
	Sb	123	76.577	0.00	0.0063	0.003	41.744	ug/L
	Ba	135	6573.669	0.02	5.7101	0.416	7.285	ug/L
	Ce	140	139023.334	0.36				ug/L
>	Tb	159	386676.892	386676.89				ug/L
	Ho	165	2113.814	0.01				ug/L
	Tl	203	147.669	0.00	0.0230	0.001	4.169	ug/L
	Tl	205	280.033	0.00	0.0254	0.007	28.436	ug/L
	Pb	206	7792.390	0.02	1.9380	0.090	4.620	ug/L
	Pb	207	6268.090	0.02	1.6594	0.101	6.058	ug/L
	Pb	208	30081.416	0.10	1.7795	0.126	7.074	ug/L
	U	238	5173.660	0.02	0.1894	0.013	7.022	ug/L
>	Bi	209	305100.207	305100.21				ug/L

Sample ID: L1201079506
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Na	23	52681.324	0.26	0.0099	0.000	4.836	mg/L
Mg	24	1455840.114	10.69	0.7694	0.026	3.401	mg/L
K	39	841980.499	2.69	0.0783	0.007	8.721	mg/L
Ca	43	29274.349	0.21	3.0680	0.171	5.575	mg/L
Fe	54	1306306.456	9.38	3.4529	0.165	4.775	mg/L
Fe	57	514560.463	3.73	2.9905	0.175	5.840	mg/L
Sc-1	45	136204.073	136204.07				mg/L
Cl	35	18646.842	-3835.44				mg/L
Kr	83	62.001	14.67				mg/L
Br	81	6176.967	6.68				mg/L
P	31	65254.640	57315.46				mg/L
S	34	118669.213	-21382.45				mg/L
Sr	88	39745.726	39689.05				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		94.568			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		93.690			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		95.039			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.135			

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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: L1201079506
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Method 6020 - Summary Report

Sample ID: L1201079507

Sample Date/Time: Wednesday, February 01, 2012 17:50:20
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 26
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	8304.153	-0.01				ug/L
	Be	9	28.667	0.00	0.0089	0.017	187.367	ug/L
	Al	27	3416998.505	24.63	1010.2397	38.947	3.855	ug/L
>	Sc	45	138694.992	138694.99				ug/L
	Ti	49	6206.280	0.02	17.5120	1.800	10.281	ug/L
	V	51	28515.358	0.09	4.3325	0.210	4.842	ug/L
	Cr	52	18100.186	0.04	2.2917	0.171	7.462	ug/L
	Cr	53	2073.800	0.00	2.2678	0.265	11.677	ug/L
	Mn	55	406193.118	1.29	47.9543	2.718	5.668	ug/L
	Co	59	7930.528	0.03	1.1817	0.079	6.646	ug/L
	Ni	60	4170.420	0.01	3.0561	0.149	4.887	ug/L
	Cu	65	2300.341	0.01	1.6859	0.062	3.683	ug/L
	Zn	66	7328.634	0.02	9.4377	0.499	5.291	ug/L
>	Ge	72	314501.948	314501.95				ug/L
	As	75	1120.843	0.00	1.5060	0.159	10.572	ug/L
	Se	77	77.334	0.00	0.2575	0.070	27.012	ug/L
	Se	82	20.261	0.00	0.2994	0.176	58.658	ug/L
	Rb	85	6834.874	0.02				mg/L
	Y	89	235676.952	21882.56				ug/L
	Rh	103	8.000	-5.67				ug/L
	Mo	98	479.402	0.00	0.2023	0.017	8.219	ug/L
	Ag	107	81.668	0.00	-0.0271	0.002	8.647	ug/L
	Cd	114	33.827	0.00	0.0051	0.008	164.357	ug/L
>	In	115	283701.737	283701.74				ug/L
	Sn	118	207.736	-0.00	-0.0146	0.001	9.120	ug/L
	Sb	123	71.159	0.00	0.0037	0.001	31.501	ug/L
	Ba	135	6870.904	0.02	5.8601	0.245	4.177	ug/L
	Ce	140	139846.045	0.35				ug/L
>	Tb	159	393984.130	393984.13				ug/L
	Ho	165	1970.431	0.01				ug/L
	Tl	203	149.336	0.00	0.0224	0.004	19.875	ug/L
	Tl	205	340.041	0.00	0.0295	0.004	13.297	ug/L
	Pb	206	8779.387	0.03	2.1253	0.099	4.648	ug/L
	Pb	207	7017.031	0.02	1.8084	0.094	5.199	ug/L
	Pb	208	33633.042	0.10	1.9361	0.092	4.760	ug/L
	U	238	4195.100	0.01	0.1426	0.008	5.362	ug/L
>	Bi	209	314049.164	314049.16				ug/L

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Na	23	45310.937	0.20	0.0072	0.001	14.125	mg/L
Mg	24	1479019.441	10.67	0.7680	0.041	5.375	mg/L
K	39	862221.610	2.73	0.0795	0.005	5.935	mg/L
Ca	43	28946.512	0.21	2.9772	0.122	4.098	mg/L
Fe	54	1372602.267	9.69	3.5664	0.198	5.541	mg/L
Fe	57	559909.868	3.99	3.2009	0.217	6.783	mg/L
Sc-1	45	138694.992	138694.99				mg/L
Cl	35	19451.353	-3030.93				mg/L
Kr	83	46.667	-0.67				mg/L
Br	81	6587.947	417.66				mg/L
P	31	62216.327	54277.15				mg/L
S	34	128020.588	-12031.07				mg/L
Sr	88	36657.571	36600.90				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		97.319			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		96.517			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.835			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.896			

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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: L1201079507
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Method 6020 - Summary Report

Sample ID: L1201079508

Sample Date/Time: Wednesday, February 01, 2012 17:58:07
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 27
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	9271.833	0.00				ug/L
	Be	9	15.333	0.00	-0.0507	0.007	13.926	ug/L
	Al	27	2363276.863	17.36	712.2463	45.492	6.387	ug/L
>	Sc	45	136239.264	136239.26				ug/L
	Ti	49	5072.052	0.02	14.2825	0.617	4.322	ug/L
	V	51	21262.072	0.06	3.1600	0.135	4.281	ug/L
	Cr	52	14003.566	0.03	1.5343	0.060	3.922	ug/L
	Cr	53	1453.609	0.00	1.3127	0.486	37.045	ug/L
	Mn	55	300388.429	0.96	35.5251	2.098	5.906	ug/L
	Co	59	7012.021	0.02	1.0426	0.034	3.290	ug/L
	Ni	60	3972.988	0.01	2.9146	0.148	5.076	ug/L
	Cu	65	2185.975	0.01	1.6003	0.032	2.009	ug/L
	Zn	66	5919.829	0.02	7.6096	0.296	3.885	ug/L
>	Ge	72	313873.192	313873.19				ug/L
	As	75	546.381	0.00	0.8233	0.060	7.294	ug/L
	Se	77	50.667	-0.00	-0.1670	0.081	48.644	ug/L
	Se	82	3.852	0.00	0.0882	0.090	102.401	ug/L
	Rb	85	4842.124	0.02				mg/L
	Y	89	231120.800	17326.41				ug/L
	Rh	103	9.000	-4.67				ug/L
	Mo	98	376.656	0.00	0.1524	0.002	1.321	ug/L
	Ag	107	72.001	0.00	-0.0294	0.001	1.827	ug/L
	Cd	114	22.541	0.00	-0.0067	0.004	60.644	ug/L
>	In	115	281981.253	281981.25				ug/L
	Sn	118	196.669	-0.00	-0.0176	0.003	14.618	ug/L
	Sb	123	65.199	0.00	0.0019	0.001	64.228	ug/L
	Ba	135	6254.412	0.02	5.3848	0.268	4.969	ug/L
	Ce	140	121086.153	0.31				ug/L
>	Tb	159	390091.858	390091.86				ug/L
	Ho	165	1493.617	0.00				ug/L
	Tl	203	143.003	0.00	0.0213	0.002	7.178	ug/L
	Tl	205	296.702	0.00	0.0261	0.001	5.751	ug/L
	Pb	206	6277.429	0.02	1.5095	0.076	5.043	ug/L
	Pb	207	5148.976	0.02	1.3167	0.035	2.640	ug/L
	Pb	208	24515.153	0.08	1.4014	0.056	4.022	ug/L
	U	238	3986.661	0.01	0.1345	0.007	5.045	ug/L
>	Bi	209	313067.220	313067.22				ug/L

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Na	23	59118.357	0.31	0.0121	0.001	9.865	mg/L
Mg	24	2735366.019	20.11	1.4524	0.107	7.340	mg/L
K	39	713344.770	1.75	0.0483	0.010	20.287	mg/L
Ca	43	69078.923	0.51	7.2906	0.544	7.460	mg/L
Fe	54	835208.148	5.94	2.1837	0.226	10.342	mg/L
Fe	57	347049.944	2.50	2.0081	0.243	12.077	mg/L
Sc-1	45	136239.264	136239.26				mg/L
Cl	35	18326.803	-4155.48				mg/L
Kr	83	55.334	8.00				mg/L
Br	81	6069.544	-100.74				mg/L
P	31	53434.234	45495.05				mg/L
S	34	129558.958	-10492.70				mg/L
Sr	88	73860.059	73803.39				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		97.125			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.931			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		95.878			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.593			

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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: L1201079508
Report Date/Time: Wednesday, February 01, 2012 18:00:19
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Method 6020 - Summary Report

Sample ID: L1201079509

Sample Date/Time: Wednesday, February 01, 2012 18:05:53
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 28
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	9071.608	-0.00				ug/L
	Be	9	30.000	0.00	0.0130	0.027	205.674	ug/L
	Al	27	2313976.257	16.42	673.5814	30.782	4.570	ug/L
>	Sc	45	140949.667	140949.67				ug/L
	Ti	49	3901.309	0.01	10.7585	1.043	9.690	ug/L
	V	51	24747.854	0.07	3.6745	0.102	2.775	ug/L
	Cr	52	15291.524	0.03	1.7366	0.113	6.486	ug/L
	Cr	53	1593.645	0.00	1.4964	0.053	3.565	ug/L
	Mn	55	206634.850	0.65	24.0969	0.705	2.926	ug/L
	Co	59	7819.754	0.02	1.1509	0.060	5.218	ug/L
	Ni	60	4067.703	0.01	2.9443	0.170	5.778	ug/L
	Cu	65	6340.478	0.02	4.7738	0.188	3.932	ug/L
	Zn	66	7180.166	0.02	9.1372	0.194	2.127	ug/L
>	Ge	72	318049.421	318049.42				ug/L
	As	75	478.661	0.00	0.7346	0.078	10.595	ug/L
	Se	77	69.334	0.00	0.1183	0.273	230.941	ug/L
	Se	82	-5.499	-0.00	-0.0310	0.067	217.503	ug/L
	Rb	85	4533.946	0.01				mg/L
	Y	89	228544.191	14749.80				ug/L
	Rh	103	8.333	-5.33				ug/L
	Mo	98	756.014	0.00	0.3430	0.006	1.709	ug/L
	Ag	107	69.334	0.00	-0.0300	0.002	6.886	ug/L
	Cd	114	21.736	0.00	-0.0076	0.006	80.789	ug/L
>	In	115	281807.531	281807.53				ug/L
	Sn	118	221.603	0.00	-0.0099	0.003	33.710	ug/L
	Sb	123	77.369	0.00	0.0059	0.002	33.140	ug/L
	Ba	135	7497.456	0.02	6.3221	0.365	5.773	ug/L
	Ce	140	101893.716	0.26				ug/L
>	Tb	159	398718.109	398718.11				ug/L
	Ho	165	1500.286	0.00				ug/L
	Tl	203	128.002	0.00	0.0181	0.005	30.243	ug/L
	Tl	205	266.698	0.00	0.0235	0.002	7.317	ug/L
	Pb	206	7793.726	0.02	1.8739	0.077	4.117	ug/L
	Pb	207	6438.554	0.02	1.6489	0.066	3.991	ug/L
	Pb	208	30752.149	0.10	1.7594	0.059	3.371	ug/L
	U	238	3482.763	0.01	0.1127	0.006	5.008	ug/L
>	Bi	209	315171.341	315171.34				ug/L

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Na	23	44767.754	0.19	0.0068	0.001	11.371	mg/L
Mg	24	865612.368	6.15	0.4408	0.035	7.875	mg/L
K	39	708800.840	1.55	0.0416	0.008	19.273	mg/L
Ca	43	23341.651	0.16	2.3596	0.113	4.804	mg/L
Fe	54	1221630.092	8.47	3.1185	0.269	8.638	mg/L
Fe	57	496071.611	3.47	2.7883	0.243	8.730	mg/L
Sc-1	45	140949.667	140949.67				mg/L
Cl	35	19089.842	-3392.44				mg/L
Kr	83	57.334	10.00				mg/L
Br	81	6649.320	479.03				mg/L
P	31	39576.620	31637.44				mg/L
S	34	131877.593	-8174.07				mg/L
Sr	88	23950.139	23893.47				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		98.417			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.872			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		97.999			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		97.242			

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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: L1201079509
Report Date/Time: Wednesday, February 01, 2012 18:08:06
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Method 6020 - Summary Report

Sample ID: L1201079510

Sample Date/Time: Wednesday, February 01, 2012 18:13:40
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 29
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	8871.410	-0.00				ug/L
	Be	9	18.667	0.00	-0.0351	0.013	38.157	ug/L
	Al	27	2499452.449	18.36	753.1683	33.898	4.501	ug/L
>	Sc	45	136205.244	136205.24				ug/L
	Ti	49	3317.660	0.01	9.3771	0.381	4.060	ug/L
	V	51	18918.091	0.06	2.8262	0.025	0.885	ug/L
	Cr	52	13928.105	0.03	1.5615	0.082	5.239	ug/L
	Cr	53	1626.988	0.00	1.6216	0.111	6.868	ug/L
	Mn	55	293341.262	0.95	35.2365	0.636	1.806	ug/L
	Co	59	6199.034	0.02	0.9320	0.021	2.226	ug/L
	Ni	60	3559.463	0.01	2.6470	0.071	2.684	ug/L
	Cu	65	1589.167	0.00	1.1541	0.020	1.723	ug/L
	Zn	66	4779.084	0.02	6.2118	0.090	1.455	ug/L
>	Ge	72	309039.363	309039.36				ug/L
	As	75	456.495	0.00	0.7252	0.076	10.463	ug/L
	Se	77	66.000	0.00	0.0945	0.073	77.181	ug/L
	Se	82	5.838	0.00	0.1155	0.185	160.139	ug/L
	Rb	85	5643.967	0.02				mg/L
	Y	89	217818.532	4024.14				ug/L
	Rh	103	9.000	-4.67				ug/L
	Mo	98	347.467	0.00	0.1421	0.011	7.508	ug/L
	Ag	107	59.667	0.00	-0.0320	0.001	2.035	ug/L
	Cd	114	8.386	0.00	-0.0217	0.006	27.287	ug/L
>	In	115	275257.087	275257.09				ug/L
	Sn	118	197.336	-0.00	-0.0160	0.003	16.345	ug/L
	Sb	123	53.327	0.00	-0.0015	0.002	108.899	ug/L
	Ba	135	5424.153	0.01	4.7243	0.177	3.752	ug/L
	Ce	140	98289.488	0.26				ug/L
>	Tb	159	385115.084	385115.08				ug/L
	Ho	165	1443.604	0.00				ug/L
	Tl	203	99.335	0.00	0.0129	0.003	23.738	ug/L
	Tl	205	256.697	0.00	0.0233	0.006	27.339	ug/L
	Pb	206	4600.650	0.01	1.1159	0.037	3.283	ug/L
	Pb	207	3725.203	0.01	0.9582	0.018	1.874	ug/L
	Pb	208	17776.971	0.06	1.0237	0.012	1.214	ug/L
	U	238	3595.479	0.01	0.1216	0.005	4.122	ug/L
>	Bi	209	306447.581	306447.58				ug/L

Sample ID: L1201079510
Report Date/Time: Wednesday, February 01, 2012 18:15:53
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Na	23	56744.917	0.29	0.0113	0.000	3.465	mg/L
Mg	24	2402786.661	17.66	1.2746	0.060	4.683	mg/L
K	39	792428.369	2.33	0.0668	0.010	15.003	mg/L
Ca	43	68910.693	0.51	7.2693	0.374	5.147	mg/L
Fe	54	821256.541	5.82	2.1424	0.088	4.107	mg/L
Fe	57	335507.815	2.41	1.9365	0.102	5.252	mg/L
Sc-1	45	136205.244	136205.24				mg/L
Cl	35	18160.435	-4321.85				mg/L
Kr	83	57.001	9.67				mg/L
Br	81	6305.718	135.43				mg/L
P	31	44928.123	36988.94				mg/L
S	34	127895.774	-12155.89				mg/L
Sr	88	71637.097	71580.42				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					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		95.629			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		93.644			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		94.655			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.550			

Sample ID: L1201079510
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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: L1201079510
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201079511

Sample Date/Time: Wednesday, February 01, 2012 18:21:28
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 30
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	9038.241	-0.00				ug/L
	Be	9	14.667	0.00	-0.0528	0.045	84.966	ug/L
	Al	27	1491380.803	10.91	447.5384	26.566	5.936	ug/L
>	Sc	45	136832.936	136832.94				ug/L
	Ti	49	2500.625	0.01	6.8702	0.088	1.279	ug/L
	V	51	17822.261	0.05	2.5959	0.035	1.342	ug/L
	Cr	52	10961.987	0.02	0.9643	0.055	5.710	ug/L
	Cr	53	1046.837	0.00	0.6769	0.113	16.738	ug/L
	Mn	55	220629.663	0.70	26.0489	0.440	1.689	ug/L
	Co	59	4994.214	0.02	0.7302	0.019	2.622	ug/L
	Ni	60	3036.584	0.01	2.2121	0.014	0.647	ug/L
	Cu	65	1750.202	0.01	1.2587	0.100	7.918	ug/L
	Zn	66	4843.456	0.02	6.1903	0.048	0.779	ug/L
>	Ge	72	314213.823	314213.82				ug/L
	As	75	194.891	0.00	0.4036	0.033	8.236	ug/L
	Se	77	70.000	0.00	0.1415	0.141	99.306	ug/L
	Se	82	10.899	0.00	0.1784	0.163	91.606	ug/L
	Rb	85	3545.123	0.01				mg/L
	Y	89	228006.785	14212.39				ug/L
	Rh	103	9.000	-4.67				ug/L
	Mo	98	389.876	0.00	0.1582	0.014	9.063	ug/L
	Ag	107	69.668	0.00	-0.0300	0.002	7.645	ug/L
	Cd	114	134.432	0.00	0.1126	0.019	17.132	ug/L
>	In	115	283383.466	283383.47				ug/L
	Sn	118	196.269	-0.00	-0.0181	0.002	8.347	ug/L
	Sb	123	86.118	0.00	0.0086	0.002	20.978	ug/L
	Ba	135	5154.979	0.01	4.4013	0.088	2.010	ug/L
	Ce	140	82582.305	0.21				ug/L
>	Tb	159	392386.222	392386.22				ug/L
	Ho	165	1060.174	0.00				ug/L
	Tl	203	96.335	0.00	0.0120	0.001	5.399	ug/L
	Tl	205	280.033	0.00	0.0248	0.002	9.800	ug/L
	Pb	206	4707.376	0.01	1.1243	0.007	0.623	ug/L
	Pb	207	3933.301	0.01	0.9982	0.013	1.309	ug/L
	Pb	208	18512.294	0.06	1.0508	0.032	3.083	ug/L
	U	238	4444.898	0.01	0.1546	0.008	5.192	ug/L
>	Bi	209	311329.719	311329.72				ug/L

Sample ID: L1201079511
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Na	23	52946.566	0.26	0.0099	0.001	11.581	mg/L
Mg	24	2345960.611	17.17	1.2389	0.051	4.141	mg/L
K	39	659039.831	1.34	0.0350	0.011	30.243	mg/L
Ca	43	69788.080	0.51	7.3385	0.560	7.632	mg/L
Fe	54	500098.337	3.45	1.2679	0.088	6.931	mg/L
Fe	57	206108.358	1.46	1.1674	0.073	6.239	mg/L
Sc-1	45	136832.936	136832.94				mg/L
Cl	35	19790.144	-2692.14				mg/L
Kr	83	50.001	2.67				mg/L
Br	81	6333.073	162.79				mg/L
P	31	40242.974	32303.79				mg/L
S	34	141799.258	1747.60				mg/L
Sr	88	69566.297	69509.62				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		97.230			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		96.408			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.442			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.057			

Sample ID: L1201079511
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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: L1201079511
Report Date/Time: Wednesday, February 01, 2012 18:23:41
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 01, 2012 18:29:16
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	9305.201	-0.00				ug/L
	Be	9	10453.224	0.07	46.7877	2.145	4.584	ug/L
	Al	27	167420.049	1.18	48.2702	3.281	6.797	ug/L
>	Sc	45	140847.058	140847.06				ug/L
	Ti	49	35301.497	0.11	99.2904	3.487	3.511	ug/L
	V	51	313707.422	0.97	49.7820	1.039	2.088	ug/L
	Cr	52	278546.237	0.85	49.8293	0.700	1.404	ug/L
	Cr	53	33544.062	0.10	50.1472	0.452	0.902	ug/L
	Mn	55	433104.736	1.35	50.1846	0.389	0.775	ug/L
	Co	59	339717.299	1.06	51.3079	0.656	1.278	ug/L
	Ni	60	68228.854	0.21	49.9030	0.630	1.262	ug/L
	Cu	65	66964.313	0.21	51.0439	0.392	0.769	ug/L
	Zn	66	39619.690	0.12	50.7439	0.449	0.885	ug/L
>	Ge	72	320443.800	320443.80				ug/L
	As	75	41830.026	0.13	49.0643	0.626	1.275	ug/L
	Se	77	3337.335	0.01	51.3895	1.922	3.740	ug/L
	Se	82	3991.604	0.01	50.1656	1.387	2.766	ug/L
	Rb	85	1554.827	0.00				mg/L
	Y	89	217876.450	4082.06				ug/L
	Rh	103	47.001	33.33				ug/L
	Mo	98	208472.614	0.72	101.8937	2.344	2.301	ug/L
	Ag	107	212393.394	0.73	51.0986	1.367	2.676	ug/L
	Cd	114	48344.521	0.17	50.5605	0.995	1.967	ug/L
>	In	115	289635.839	289635.84				ug/L
	Sn	118	164609.821	0.57	49.3831	0.982	1.988	ug/L
	Sb	123	153976.875	0.53	49.0279	1.718	3.504	ug/L
	Ba	135	59100.181	0.15	49.3585	1.510	3.059	ug/L
	Ce	140	220.025	0.00				ug/L
>	Tb	159	405839.852	405839.85				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	247643.547	0.78	49.0889	0.719	1.464	ug/L
	Tl	205	619341.131	1.95	49.7047	0.520	1.047	ug/L
	Pb	206	200865.311	0.63	49.1926	0.096	0.194	ug/L
	Pb	207	190701.360	0.60	49.9803	0.308	0.617	ug/L
	Pb	208	852066.318	2.67	49.7396	0.358	0.720	ug/L
	U	238	1283610.515	4.03	52.2753	0.671	1.283	ug/L
>	Bi	209	318337.459	318337.46				ug/L

Sample ID: QC Std 6
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Na	23	14514918.503	102.96	4.6936	0.208	4.434	mg/L
Mg	24	9134934.545	64.87	4.6949	0.234	4.976	mg/L
K	39	22460506.995	155.99	4.9766	0.123	2.462	mg/L
Ca	43	48391.611	0.34	4.9213	0.086	1.740	mg/L
Fe	54	1911224.602	13.36	4.9197	0.101	2.053	mg/L
Fe	57	882173.558	6.21	4.9885	0.131	2.618	mg/L
Sc-1	45	140847.058	140847.06				mg/L
Cl	35	19856.306	-2625.98				mg/L
Kr	83	47.667	0.33				mg/L
Br	81	6621.297	451.01				mg/L
P	31	8960.165	1020.98				mg/L
S	34	140944.861	893.20				mg/L
Sr	88	3531.102	3474.43				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	99.564				
Cr	52	99.659				
Cr	53					
Mn	55	100.369				
Co	59	102.616				
Ni	60	99.806				
Cu	65	102.088				
Zn	66	101.488				
Ge	72		99.158			
As	75	98.129				
Se	77					
Se	82	100.331				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	102.197				
Cd	114	101.121				
In	115		98.536			
Sn	118					
Sb	123	98.056				
Ba	135	98.717				
Ce	140					
Tb	159		99.749			
Ho	165					
Tl	203	98.178				
Tl	205					
Pb	206					
Pb	207					
Pb	208	99.479				
U	238	104.551				
Bi	209		98.219			

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: Wednesday, February 01, 2012 18:31:29
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 01, 2012 18:36:52
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	8871.389	-0.00				ug/L
	Be	9	10.000	0.00	-0.0774	0.023	30.065	ug/L
	Al	27	2367.007	0.00	0.1982	0.108	54.671	ug/L
>	Sc	45	141067.512	141067.51				ug/L
	Ti	49	30.003	-0.00	-0.2384	0.029	12.094	ug/L
	V	51	1806.072	0.00	-0.0130	0.014	107.770	ug/L
	Cr	52	5829.097	0.00	0.0022	0.024	1136.765	ug/L
	Cr	53	530.070	0.00	-0.1294	0.196	151.706	ug/L
	Mn	55	272.341	0.00	-0.0105	0.003	25.091	ug/L
	Co	59	81.668	0.00	-0.0270	0.003	10.839	ug/L
	Ni	60	31.667	0.00	-0.0318	0.003	7.965	ug/L
	Cu	65	97.002	0.00	-0.0292	0.004	13.034	ug/L
	Zn	66	89.001	0.00	-0.0388	0.014	36.567	ug/L
>	Ge	72	315930.937	315930.94				ug/L
	As	75	-167.473	-0.00	-0.0270	0.052	193.235	ug/L
	Se	77	59.334	0.00	-0.0337	0.191	565.866	ug/L
	Se	82	8.246	0.00	0.1441	0.078	54.097	ug/L
	Rb	85	24.000	-0.00				mg/L
	Y	89	212089.287	-1705.11				ug/L
	Rh	103	12.667	-1.00				ug/L
	Mo	98	71.640	0.00	-0.0013	0.006	448.888	ug/L
	Ag	107	74.668	0.00	-0.0290	0.002	8.053	ug/L
	Cd	114	-2.118	-0.00	-0.0332	0.010	29.252	ug/L
>	In	115	286735.051	286735.05				ug/L
	Sn	118	260.537	0.00	0.0007	0.003	438.291	ug/L
	Sb	123	33.075	0.00	-0.0088	0.002	22.956	ug/L
	Ba	135	47.334	0.00	-0.0157	0.009	57.089	ug/L
	Ce	140	130.014	0.00				ug/L
>	Tb	159	398057.079	398057.08				ug/L
	Ho	165	3.334	-0.00				ug/L
	Tl	203	64.668	0.00	0.0053	0.001	22.817	ug/L
	Tl	205	70.007	0.00	0.0075	0.001	10.068	ug/L
	Pb	206	213.672	0.00	-0.0033	0.001	27.032	ug/L
	Pb	207	191.004	0.00	-0.0068	0.006	85.969	ug/L
	Pb	208	836.358	0.00	-0.0063	0.002	31.978	ug/L
	U	238	132.002	0.00	-0.0252	0.001	2.886	ug/L
>	Bi	209	316871.147	316871.15				ug/L

Sample ID: QC Std 7
Report Date/Time: Wednesday, February 01, 2012 18:39:04
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Na	23	14190.183	-0.03	-0.0032	0.000	10.153	mg/L
Mg	24	833.459	0.00	-0.0046	0.000	1.879	mg/L
K	39	425533.976	-0.47	-0.0228	0.001	5.494	mg/L
Ca	43	193.355	-0.00	-0.0088	0.003	38.602	mg/L
Fe	54	29993.041	0.00	-0.0035	0.004	106.035	mg/L
Fe	57	7030.336	-0.00	-0.0055	0.002	35.467	mg/L
Sc-1	45	141067.512	141067.51				mg/L
Cl	35	19303.003	-3179.28				mg/L
Kr	83	48.334	1.00				mg/L
Br	81	6021.512	-148.78				mg/L
P	31	8873.389	934.21				mg/L
S	34	121450.397	-18601.26				mg/L
Sr	88	50.005	-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		97.762			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		97.549			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		97.836			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		97.766			

Sample ID: QC Std 7
Report Date/Time: Wednesday, February 01, 2012 18:39:04
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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: QC Std 7
Report Date/Time: Wednesday, February 01, 2012 18:39:04
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Method 6020 - Summary Report

Sample ID: L1201079512

Sample Date/Time: Wednesday, February 01, 2012 18:44:29
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 31
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	8504.400	-0.01				ug/L
	Be	9	21.333	0.00	-0.0285	0.019	64.889	ug/L
	Al	27	2500461.157	17.32	710.6624	50.313	7.080	ug/L
>	Sc	45	144373.689	144373.69				ug/L
	Ti	49	3587.799	0.01	9.5837	0.623	6.505	ug/L
	V	51	23581.163	0.07	3.3791	0.120	3.553	ug/L
	Cr	52	15161.620	0.03	1.6338	0.150	9.183	ug/L
	Cr	53	1556.968	0.00	1.3721	0.127	9.232	ug/L
	Mn	55	210729.455	0.64	23.8762	0.714	2.991	ug/L
	Co	59	7212.864	0.02	1.0276	0.060	5.872	ug/L
	Ni	60	4914.835	0.01	3.4673	0.245	7.072	ug/L
	Cu	65	2167.304	0.01	1.5160	0.077	5.058	ug/L
	Zn	66	6901.261	0.02	8.5225	0.343	4.028	ug/L
>	Ge	72	327442.588	327442.59				ug/L
	As	75	642.422	0.00	0.9062	0.063	6.998	ug/L
	Se	77	70.667	0.00	0.1067	0.071	66.448	ug/L
	Se	82	6.128	0.00	0.1142	0.015	13.021	ug/L
	Rb	85	5868.793	0.02				mg/L
	Y	89	238248.228	24453.84				ug/L
	Rh	103	9.000	-4.67				ug/L
	Mo	98	676.495	0.00	0.2945	0.024	8.216	ug/L
	Ag	107	70.668	0.00	-0.0301	0.002	6.828	ug/L
	Cd	114	13.731	0.00	-0.0166	0.005	32.946	ug/L
>	In	115	289089.188	289089.19				ug/L
	Sn	118	243.470	0.00	-0.0050	0.003	67.418	ug/L
	Sb	123	79.325	0.00	0.0060	0.005	80.831	ug/L
	Ba	135	13149.178	0.03	10.9939	0.602	5.474	ug/L
	Ce	140	108840.917	0.27				ug/L
>	Tb	159	403892.968	403892.97				ug/L
	Ho	165	1636.992	0.01				ug/L
	Tl	203	102.335	0.00	0.0126	0.002	17.965	ug/L
	Tl	205	296.702	0.00	0.0255	0.005	18.767	ug/L
	Pb	206	5719.688	0.02	1.3359	0.060	4.464	ug/L
	Pb	207	4619.327	0.01	1.1457	0.049	4.304	ug/L
	Pb	208	22034.014	0.07	1.2224	0.063	5.126	ug/L
	U	238	4889.150	0.02	0.1671	0.005	3.183	ug/L
>	Bi	209	320813.946	320813.95				ug/L

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Na	23	60941.540	0.29	0.0115	0.001	8.627	mg/L
Mg	24	1737820.568	12.05	0.8678	0.051	5.906	mg/L
K	39	743617.397	1.66	0.0454	0.005	11.920	mg/L
Ca	43	43715.432	0.30	4.3368	0.208	4.785	mg/L
Fe	54	1014835.868	6.82	2.5112	0.174	6.915	mg/L
Fe	57	428746.410	2.92	2.3431	0.141	6.024	mg/L
Sc-1	45	144373.689	144373.69				mg/L
Cl	35	20586.734	-1895.55				mg/L
Kr	83	62.001	14.67				mg/L
Br	81	6571.264	400.98				mg/L
P	31	47863.426	39924.25				mg/L
S	34	141967.598	1915.94				mg/L
Sr	88	50806.235	50749.56				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		101.324			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		98.350			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		99.270			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		98.983			

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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: L1201079513

Sample Date/Time: Wednesday, February 01, 2012 18:52:17
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 32
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	9238.471	0.00				ug/L
	Be	9	16.667	0.00	-0.0434	0.049	113.161	ug/L
	Al	27	1835317.832	13.51	554.3651	47.462	8.562	ug/L
>	Sc	45	136019.487	136019.49				ug/L
	Ti	49	4825.214	0.02	13.5625	0.713	5.260	ug/L
	V	51	16778.577	0.05	2.4271	0.121	5.005	ug/L
	Cr	52	12889.763	0.02	1.3245	0.092	6.947	ug/L
	Cr	53	1376.918	0.00	1.1908	0.167	14.005	ug/L
	Mn	55	225113.439	0.72	26.5890	1.040	3.913	ug/L
	Co	59	9431.773	0.03	1.4149	0.093	6.602	ug/L
	Ni	60	5103.283	0.02	3.7569	0.236	6.294	ug/L
	Cu	65	2077.947	0.01	1.5149	0.090	5.959	ug/L
	Zn	66	5528.891	0.02	7.0914	0.378	5.331	ug/L
>	Ge	72	314208.936	314208.94				ug/L
	As	75	347.371	0.00	0.5855	0.036	6.217	ug/L
	Se	77	66.667	0.00	0.0873	0.123	140.624	ug/L
	Se	82	21.534	0.00	0.3143	0.100	31.849	ug/L
	Rb	85	4332.836	0.01				mg/L
	Y	89	232334.140	18539.75				ug/L
	Rh	103	7.000	-6.67				ug/L
	Mo	98	443.400	0.00	0.1886	0.007	3.568	ug/L
	Ag	107	78.001	0.00	-0.0276	0.002	6.528	ug/L
	Cd	114	30.843	0.00	0.0026	0.002	91.802	ug/L
>	In	115	278594.667	278594.67				ug/L
	Sn	118	209.736	-0.00	-0.0129	0.003	20.753	ug/L
	Sb	123	78.162	0.00	0.0065	0.002	35.659	ug/L
	Ba	135	5597.270	0.01	4.7906	0.163	3.410	ug/L
	Ce	140	107928.720	0.28				ug/L
>	Tb	159	391880.643	391880.64				ug/L
	Ho	165	1837.053	0.01				ug/L
	Tl	203	159.670	0.00	0.0253	0.004	15.774	ug/L
	Tl	205	323.372	0.00	0.0287	0.002	6.036	ug/L
	Pb	206	5413.147	0.02	1.3201	0.067	5.079	ug/L
	Pb	207	4408.211	0.01	1.1420	0.049	4.330	ug/L
	Pb	208	20996.962	0.07	1.2166	0.046	3.806	ug/L
	U	238	5016.227	0.02	0.1813	0.008	4.189	ug/L
>	Bi	209	307098.723	307098.72				ug/L

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Na	23	65335.170	0.35	0.0142	0.000	2.713	mg/L
Mg	24	2647138.677	19.49	1.4072	0.074	5.289	mg/L
K	39	718950.474	1.80	0.0498	0.007	13.431	mg/L
Ca	43	67290.671	0.49	7.1089	0.345	4.859	mg/L
Fe	54	620749.311	4.36	1.6045	0.144	8.961	mg/L
Fe	57	254264.314	1.82	1.4590	0.117	8.044	mg/L
Sc-1	45	136019.487	136019.49				mg/L
Cl	35	18634.145	-3848.14				mg/L
Kr	83	53.667	6.33				mg/L
Br	81	5787.343	-382.94				mg/L
P	31	69469.040	61529.86				mg/L
S	34	138157.012	-1894.65				mg/L
Sr	88	74731.050	74674.38				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		97.229			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.779			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.318			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.751			

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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: L1201079513
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Method 6020 - Summary Report

Sample ID: L1201079514

Sample Date/Time: Wednesday, February 01, 2012 19:00:05
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 33
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	9038.244	-0.00				ug/L
	Be	9	18.667	0.00	-0.0368	0.011	30.958	ug/L
	Al	27	1918253.480	13.83	567.4842	23.384	4.121	ug/L
>	Sc	45	138593.154	138593.15				ug/L
	Ti	49	4468.315	0.01	11.9722	0.543	4.533	ug/L
	V	51	37757.658	0.11	5.5750	0.204	3.667	ug/L
	Cr	52	16898.979	0.03	1.9351	0.066	3.435	ug/L
	Cr	53	1797.042	0.00	1.7284	0.393	22.744	ug/L
	Mn	55	721159.246	2.19	81.5300	3.514	4.310	ug/L
	Co	59	7031.389	0.02	0.9965	0.077	7.757	ug/L
	Ni	60	4878.147	0.01	3.4288	0.165	4.818	ug/L
	Cu	65	2337.685	0.01	1.6376	0.051	3.134	ug/L
	Zn	66	5220.026	0.02	6.3848	0.321	5.029	ug/L
>	Ge	72	328284.162	328284.16				ug/L
	As	75	1883.079	0.01	2.3189	0.084	3.634	ug/L
	Se	77	88.667	0.00	0.3827	0.308	80.455	ug/L
	Se	82	29.554	0.00	0.4045	0.199	49.221	ug/L
	Rb	85	4549.624	0.01				mg/L
	Y	89	251473.454	37679.06				ug/L
	Rh	103	9.667	-4.00				ug/L
	Mo	98	5055.380	0.02	2.4246	0.169	6.969	ug/L
	Ag	107	82.668	0.00	-0.0273	0.002	6.414	ug/L
	Cd	114	39.157	0.00	0.0100	0.012	117.776	ug/L
>	In	115	290614.342	290614.34				ug/L
	Sn	118	236.937	0.00	-0.0074	0.002	25.403	ug/L
	Sb	123	96.661	0.00	0.0113	0.003	29.559	ug/L
	Ba	135	21840.541	0.05	17.9729	0.782	4.349	ug/L
	Ce	140	138107.285	0.34				ug/L
>	Tb	159	410817.693	410817.69				ug/L
	Ho	165	2087.139	0.01				ug/L
	Tl	203	121.669	0.00	0.0166	0.005	29.617	ug/L
	Tl	205	310.037	0.00	0.0268	0.002	6.539	ug/L
	Pb	206	7525.479	0.02	1.7901	0.103	5.730	ug/L
	Pb	207	6111.973	0.02	1.5474	0.089	5.743	ug/L
	Pb	208	29245.263	0.09	1.6543	0.106	6.381	ug/L
	U	238	11775.127	0.04	0.4494	0.033	7.249	ug/L
>	Bi	209	318148.514	318148.51				ug/L

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Na	23	78964.708	0.44	0.0183	0.002	11.799	mg/L
Mg	24	4226608.947	30.52	2.2060	0.165	7.482	mg/L
K	39	757515.328	1.98	0.0555	0.009	16.727	mg/L
Ca	43	291306.470	2.10	30.2776	3.134	10.352	mg/L
Fe	54	1949330.353	13.87	5.1070	0.552	10.801	mg/L
Fe	57	906737.302	6.50	5.2164	0.472	9.047	mg/L
Sc-1	45	138593.154	138593.15				mg/L
Cl	35	24043.305	1561.02				mg/L
Kr	83	51.334	4.00				mg/L
Br	81	6736.731	566.44				mg/L
P	31	60237.390	52298.21				mg/L
S	34	172276.607	32224.95				mg/L
Sr	88	180094.057	180037.38				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		101.584			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		98.868			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		100.972			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		98.160			

Sample ID: L1201079514
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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: L1201079514
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Method 6020 - Summary Report

Sample ID: L1201079515

Sample Date/Time: Wednesday, February 01, 2012 19:07:53
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 34
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	8671.189	-0.00				ug/L
	Be	9	31.333	0.00	0.0216	0.048	223.225	ug/L
	Al	27	4018440.678	28.91	1186.0593	55.407	4.672	ug/L
>	Sc	45	139120.529	139120.53				ug/L
	Ti	49	5582.428	0.02	15.8744	0.749	4.719	ug/L
	V	51	25419.401	0.08	3.8675	0.118	3.044	ug/L
	Cr	52	19268.779	0.04	2.5425	0.088	3.477	ug/L
	Cr	53	2213.849	0.01	2.5207	0.228	9.047	ug/L
	Mn	55	1261344.549	4.05	150.3860	4.700	3.125	ug/L
	Co	59	8565.153	0.03	1.2918	0.043	3.325	ug/L
	Ni	60	5102.946	0.02	3.7864	0.088	2.316	ug/L
	Cu	65	4091.045	0.01	3.1085	0.058	1.861	ug/L
	Zn	66	13268.354	0.04	17.3734	0.498	2.864	ug/L
>	Ge	72	311734.681	311734.68				ug/L
	As	75	1075.800	0.00	1.4635	0.028	1.896	ug/L
	Se	77	83.334	0.00	0.3635	0.276	75.922	ug/L
	Se	82	27.227	0.00	0.3889	0.176	45.238	ug/L
	Rb	85	8289.205	0.03				mg/L
	Y	89	246147.555	32353.16				ug/L
	Rh	103	5.000	-8.67				ug/L
	Mo	98	866.656	0.00	0.3973	0.013	3.343	ug/L
	Ag	107	74.668	0.00	-0.0288	0.002	5.747	ug/L
	Cd	114	77.436	0.00	0.0522	0.022	42.491	ug/L
>	In	115	282708.443	282708.44				ug/L
	Sn	118	242.404	0.00	-0.0037	0.003	81.269	ug/L
	Sb	123	55.492	0.00	-0.0013	0.003	200.478	ug/L
	Ba	135	13993.213	0.04	12.0647	0.157	1.303	ug/L
	Ce	140	137577.110	0.35				ug/L
>	Tb	159	391732.302	391732.30				ug/L
	Ho	165	2337.228	0.01				ug/L
	Tl	203	172.337	0.00	0.0272	0.002	7.729	ug/L
	Tl	205	523.403	0.00	0.0445	0.008	17.419	ug/L
	Pb	206	48661.164	0.15	12.0875	0.279	2.311	ug/L
	Pb	207	41895.138	0.13	11.1307	0.212	1.900	ug/L
	Pb	208	195561.470	0.62	11.5761	0.241	2.083	ug/L
	U	238	9490.496	0.03	0.3630	0.004	0.974	ug/L
>	Bi	209	312822.330	312822.33				ug/L

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Na	23	48985.184	0.22	0.0083	0.000	5.579	mg/L
Mg	24	2573044.366	18.52	1.3372	0.064	4.792	mg/L
K	39	801930.487	2.28	0.0652	0.007	11.276	mg/L
Ca	43	53855.550	0.39	5.5605	0.357	6.424	mg/L
Fe	54	1712557.753	12.11	4.4603	0.163	3.648	mg/L
Fe	57	694828.615	4.95	3.9718	0.117	2.953	mg/L
Sc-1	45	139120.529	139120.53				mg/L
Cl	35	19357.791	-3124.50				mg/L
Kr	83	50.667	3.33				mg/L
Br	81	6678.678	508.39				mg/L
P	31	52851.097	44911.92				mg/L
S	34	134355.565	-5696.09				mg/L
Sr	88	48918.059	48861.39				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		96.463			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		96.179			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.282			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.517			

Sample ID: L1201079515
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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: L1201079515
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Method 6020 - Summary Report

Sample ID: L1201079516

Sample Date/Time: Wednesday, February 01, 2012 19:15:41
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 35
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	8437.613	-0.01				ug/L
	Be	9	20.667	0.00	-0.0284	0.016	54.709	ug/L
	Al	27	3293305.681	23.51	964.4511	38.036	3.944	ug/L
>	Sc	45	140139.138	140139.14				ug/L
	Ti	49	7110.423	0.02	20.0482	1.576	7.861	ug/L
	V	51	21419.974	0.06	3.1679	0.139	4.376	ug/L
	Cr	52	16691.893	0.03	2.0200	0.133	6.560	ug/L
	Cr	53	1720.350	0.00	1.7128	0.128	7.449	ug/L
	Mn	55	265507.593	0.84	31.2324	1.257	4.026	ug/L
	Co	59	6037.251	0.02	0.8873	0.045	5.032	ug/L
	Ni	60	3273.011	0.01	2.3785	0.171	7.187	ug/L
	Cu	65	2728.142	0.01	2.0119	0.163	8.125	ug/L
	Zn	66	4788.761	0.01	6.0933	0.407	6.680	ug/L
>	Ge	72	315428.717	315428.72				ug/L
	As	75	500.195	0.00	0.7651	0.050	6.545	ug/L
	Se	77	71.334	0.00	0.1578	0.268	169.884	ug/L
	Se	82	8.539	0.00	0.1475	0.148	100.021	ug/L
	Rb	85	5775.399	0.02				mg/L
	Y	89	231008.748	17214.36				ug/L
	Rh	103	10.333	-3.33				ug/L
	Mo	98	363.537	0.00	0.1480	0.006	4.132	ug/L
	Ag	107	79.668	0.00	-0.0272	0.002	7.286	ug/L
	Cd	114	25.088	0.00	-0.0037	0.009	255.371	ug/L
>	In	115	278629.940	278629.94				ug/L
	Sn	118	203.602	-0.00	-0.0148	0.001	9.878	ug/L
	Sb	123	70.661	0.00	0.0040	0.002	51.468	ug/L
	Ba	135	10219.040	0.03	8.7907	0.344	3.917	ug/L
	Ce	140	100924.865	0.26				ug/L
>	Tb	159	391851.707	391851.71				ug/L
	Ho	165	1560.304	0.00				ug/L
	Tl	203	130.336	0.00	0.0183	0.002	10.169	ug/L
	Tl	205	236.694	0.00	0.0209	0.003	15.335	ug/L
	Pb	206	8059.990	0.02	1.9250	0.122	6.323	ug/L
	Pb	207	6596.347	0.02	1.6779	0.069	4.128	ug/L
	Pb	208	31400.356	0.10	1.7839	0.098	5.494	ug/L
	U	238	5469.857	0.02	0.1928	0.017	8.679	ug/L
>	Bi	209	317468.027	317468.03				ug/L

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Na	23	49967.820	0.23	0.0086	0.002	17.841	mg/L
Mg	24	748636.969	5.36	0.3834	0.035	9.066	mg/L
K	39	740130.874	1.81	0.0499	0.009	18.291	mg/L
Ca	43	11612.626	0.08	1.1649	0.058	4.949	mg/L
Fe	54	855376.616	5.91	2.1757	0.226	10.384	mg/L
Fe	57	347024.072	2.43	1.9496	0.146	7.507	mg/L
Sc-1	45	140139.138	140139.14				mg/L
Cl	35	19824.889	-2657.40				mg/L
Kr	83	53.001	5.67				mg/L
Br	81	6423.149	252.86				mg/L
P	31	42574.064	34634.88				mg/L
S	34	128327.927	-11723.73				mg/L
Sr	88	21302.743	21246.07				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		97.606			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.791			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.311			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		97.951			

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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: L1201079516
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Method 6020 - Summary Report

Sample ID: L1201079517

Sample Date/Time: Wednesday, February 01, 2012 19:23:26
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 36
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	8087.294	-0.01				ug/L
	Be	9	21.333	0.00	-0.0237	0.027	114.154	ug/L
	Al	27	2557074.896	18.68	766.2772	34.735	4.533	ug/L
>	Sc	45	136882.303	136882.30				ug/L
	Ti	49	3817.924	0.01	10.6609	0.511	4.797	ug/L
	V	51	21499.550	0.06	3.1954	0.023	0.720	ug/L
	Cr	52	14940.531	0.03	1.7068	0.030	1.780	ug/L
	Cr	53	1480.280	0.00	1.3490	0.163	12.110	ug/L
	Mn	55	449948.300	1.43	53.1887	0.858	1.613	ug/L
	Co	59	5135.634	0.02	0.7525	0.029	3.892	ug/L
	Ni	60	3107.610	0.01	2.2660	0.053	2.347	ug/L
	Cu	65	2151.299	0.01	1.5718	0.060	3.805	ug/L
	Zn	66	5268.718	0.02	6.7511	0.220	3.264	ug/L
>	Ge	72	314170.552	314170.55				ug/L
	As	75	510.528	0.00	0.7791	0.084	10.821	ug/L
	Se	77	79.334	0.00	0.2917	0.212	72.526	ug/L
	Se	82	16.215	0.00	0.2449	0.204	83.339	ug/L
	Rb	85	4224.780	0.01				mg/L
	Y	89	229035.916	15241.52				ug/L
	Rh	103	7.000	-6.67				ug/L
	Mo	98	346.056	0.00	0.1396	0.011	7.568	ug/L
	Ag	107	72.001	0.00	-0.0291	0.001	4.419	ug/L
	Cd	114	30.715	0.00	0.0025	0.005	194.927	ug/L
>	In	115	277853.653	277853.65				ug/L
	Sn	118	204.269	-0.00	-0.0144	0.002	12.672	ug/L
	Sb	123	61.075	0.00	0.0009	0.003	386.267	ug/L
	Ba	135	12861.046	0.03	11.2238	0.197	1.757	ug/L
	Ce	140	102955.820	0.27				ug/L
>	Tb	159	386887.082	386887.08				ug/L
	Ho	165	1610.317	0.01				ug/L
	Tl	203	95.001	0.00	0.0118	0.003	22.526	ug/L
	Tl	205	223.359	0.00	0.0203	0.006	29.455	ug/L
	Pb	206	9201.503	0.03	2.2656	0.030	1.330	ug/L
	Pb	207	7550.162	0.02	1.9813	0.040	2.000	ug/L
	Pb	208	36042.174	0.11	2.1118	0.051	2.404	ug/L
	U	238	5713.682	0.02	0.2089	0.003	1.623	ug/L
>	Bi	209	309376.212	309376.21				ug/L

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Na	23	52466.631	0.25	0.0097	0.000	3.709	mg/L
Mg	24	1855723.987	13.56	0.9778	0.045	4.628	mg/L
K	39	666290.142	1.38	0.0364	0.004	12.149	mg/L
Ca	43	41936.124	0.31	4.3871	0.132	2.999	mg/L
Fe	54	880522.924	6.22	2.2893	0.036	1.551	mg/L
Fe	57	352231.853	2.52	2.0222	0.011	0.529	mg/L
Sc-1	45	136882.303	136882.30				mg/L
Cl	35	18225.914	-4256.37				mg/L
Kr	83	52.001	4.67				mg/L
Br	81	6314.392	144.11				mg/L
P	31	53091.289	45152.11				mg/L
S	34	123934.174	-16117.49				mg/L
Sr	88	50420.594	50363.92				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		97.217			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.527			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		95.091			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		95.454			

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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: L1201079517
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Method 6020 - Summary Report

Sample ID: L1201079518

Sample Date/Time: Wednesday, February 01, 2012 19:31:12
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 37
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	8437.611	-0.01				ug/L
	Be	9	22.667	0.00	-0.0178	0.012	70.173	ug/L
	Al	27	2862209.080	20.76	851.8027	27.254	3.200	ug/L
>	Sc	45	137729.309	137729.31				ug/L
	Ti	49	5509.052	0.02	15.6744	1.282	8.177	ug/L
	V	51	34423.669	0.11	5.3556	0.179	3.347	ug/L
	Cr	52	22590.509	0.05	3.1765	0.065	2.061	ug/L
	Cr	53	2650.687	0.01	3.2167	0.224	6.965	ug/L
	Mn	55	464308.996	1.49	55.4667	1.241	2.238	ug/L
	Co	59	6818.530	0.02	1.0222	0.027	2.630	ug/L
	Ni	60	4290.481	0.01	3.1830	0.045	1.419	ug/L
	Cu	65	4821.111	0.02	3.6914	0.090	2.452	ug/L
	Zn	66	6266.089	0.02	8.1395	0.156	1.912	ug/L
>	Ge	72	310860.960	310860.96				ug/L
	As	75	494.669	0.00	0.7666	0.031	4.018	ug/L
	Se	77	104.001	0.00	0.7028	0.034	4.778	ug/L
	Se	82	61.897	0.00	0.8436	0.183	21.689	ug/L
	Rb	85	4995.883	0.02				mg/L
	Y	89	246296.171	32501.78				ug/L
	Rh	103	10.333	-3.33				ug/L
	Mo	98	504.774	0.00	0.2206	0.005	2.482	ug/L
	Ag	107	79.668	0.00	-0.0271	0.003	10.087	ug/L
	Cd	114	74.971	0.00	0.0510	0.017	32.486	ug/L
>	In	115	277742.872	277742.87				ug/L
	Sn	118	224.403	0.00	-0.0081	0.006	76.460	ug/L
	Sb	123	84.370	0.00	0.0086	0.003	29.059	ug/L
	Ba	135	18905.306	0.05	16.3502	0.383	2.341	ug/L
	Ce	140	134869.993	0.34				ug/L
>	Tb	159	390848.636	390848.64				ug/L
	Ho	165	2187.172	0.01				ug/L
	Tl	203	123.669	0.00	0.0179	0.000	2.601	ug/L
	Tl	205	253.363	0.00	0.0229	0.003	11.636	ug/L
	Pb	206	10666.268	0.03	2.6540	0.101	3.805	ug/L
	Pb	207	8787.722	0.03	2.3320	0.069	2.963	ug/L
	Pb	208	41601.634	0.13	2.4636	0.092	3.723	ug/L
	U	238	10718.999	0.03	0.4220	0.011	2.680	ug/L
>	Bi	209	307218.174	307218.17				ug/L

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Na	23	56150.821	0.28	0.0109	0.001	5.835	mg/L
Mg	24	1268160.946	9.21	0.6621	0.013	2.019	mg/L
K	39	703569.367	1.62	0.0440	0.002	3.838	mg/L
Ca	43	34327.431	0.25	3.5613	0.127	3.565	mg/L
Fe	54	988884.742	6.96	2.5632	0.060	2.353	mg/L
Fe	57	407187.275	2.90	2.3298	0.056	2.387	mg/L
Sc-1	45	137729.309	137729.31				mg/L
Cl	35	20864.094	-1618.19				mg/L
Kr	83	50.334	3.00				mg/L
Br	81	6645.984	475.70				mg/L
P	31	66514.629	58575.45				mg/L
S	34	138682.794	-1368.87				mg/L
Sr	88	53228.411	53171.74				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		96.193			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.489			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.064			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.788			

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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: L1201079518
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 01, 2012 19:38:59
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	8537.719	-0.00				ug/L
	Be	9	10295.693	0.08	48.9774	0.823	1.681	ug/L
	Al	27	160345.305	1.20	49.1717	1.773	3.607	ug/L
>	Sc	45	132478.200	132478.20				ug/L
	Ti	49	34213.528	0.11	99.6894	0.667	0.669	ug/L
	V	51	301108.354	0.97	49.4976	1.024	2.069	ug/L
	Cr	52	267935.054	0.85	49.6588	0.615	1.238	ug/L
	Cr	53	32720.777	0.10	50.6901	1.402	2.766	ug/L
	Mn	55	417411.181	1.35	50.1197	0.089	0.177	ug/L
	Co	59	328091.728	1.06	51.3488	0.465	0.905	ug/L
	Ni	60	67353.830	0.22	51.0585	1.435	2.811	ug/L
	Cu	65	64146.585	0.21	50.6752	0.882	1.741	ug/L
	Zn	66	38046.728	0.12	50.4901	0.209	0.413	ug/L
>	Ge	72	309231.064	309231.06				ug/L
	As	75	41373.095	0.13	50.2799	0.468	0.931	ug/L
	Se	77	3151.263	0.01	50.2420	1.143	2.274	ug/L
	Se	82	3906.235	0.01	50.8674	0.305	0.600	ug/L
	Rb	85	1525.488	0.00				mg/L
	Y	89	202463.479	-11330.91				ug/L
	Rh	103	36.334	22.67				ug/L
	Mo	98	199018.655	0.70	98.6612	1.910	1.936	ug/L
	Ag	107	204886.890	0.72	50.0068	1.317	2.634	ug/L
	Cd	114	45551.590	0.16	48.3181	0.758	1.568	ug/L
>	In	115	285426.644	285426.64				ug/L
	Sn	118	160340.645	0.56	48.8024	0.775	1.589	ug/L
	Sb	123	148458.862	0.52	47.9414	0.821	1.712	ug/L
	Ba	135	58811.731	0.15	50.1394	0.845	1.685	ug/L
	Ce	140	216.691	0.00				ug/L
>	Tb	159	397593.956	397593.96				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	243870.928	0.78	49.1110	0.580	1.180	ug/L
	Tl	205	596457.787	1.90	48.6477	1.200	2.467	ug/L
	Pb	206	197541.558	0.63	49.1678	0.832	1.693	ug/L
	Pb	207	183852.514	0.59	48.9657	0.698	1.425	ug/L
	Pb	208	824219.061	2.63	48.8824	0.129	0.264	ug/L
	U	238	1263970.858	4.04	52.3194	1.185	2.264	ug/L
>	Bi	209	313298.364	313298.36				ug/L

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Na	23	14084234.889	106.17	4.8399	0.088	1.816	mg/L
Mg	24	8803138.994	66.43	4.8081	0.112	2.331	mg/L
K	39	22299481.551	164.86	5.2601	0.144	2.735	mg/L
Ca	43	47741.370	0.36	5.1637	0.279	5.407	mg/L
Fe	54	1859554.027	13.83	5.0926	0.148	2.911	mg/L
Fe	57	868274.418	6.50	5.2206	0.178	3.406	mg/L
Sc-1	45	132478.200	132478.20				mg/L
Cl	35	19021.036	-3461.25				mg/L
Kr	83	47.001	-0.33				mg/L
Br	81	6133.590	-36.70				mg/L
P	31	7553.427	-385.75				mg/L
S	34	130323.954	-9727.71				mg/L
Sr	88	3344.339	3287.67				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	98.995				
Cr	52	99.318				
Cr	53					
Mn	55	100.239				
Co	59	102.698				
Ni	60	102.117				
Cu	65	101.350				
Zn	66	100.980				
Ge	72		95.688			
As	75	100.560				
Se	77					
Se	82	101.735				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	100.014				
Cd	114	96.636				
In	115		97.104			
Sn	118					
Sb	123	95.883				
Ba	135	100.279				
Ce	140					
Tb	159		97.722			
Ho	165					
Tl	203	98.222				
Tl	205					
Pb	206					
Pb	207					
Pb	208	97.765				
U	238	104.639				
Bi	209		96.664			

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: Wednesday, February 01, 2012 19:41:12
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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 01, 2012 19:46:36
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	8704.547	-0.01				ug/L
	Be	9	12.667	0.00	-0.0647	0.036	55.988	ug/L
	Al	27	2867.165	0.01	0.3511	0.098	27.964	ug/L
>	Sc	45	139559.045	139559.05				ug/L
	Ti	49	43.338	-0.00	-0.2022	0.031	15.456	ug/L
	V	51	1981.677	0.00	0.0110	0.003	26.093	ug/L
	Cr	52	6104.630	0.00	0.0380	0.022	58.459	ug/L
	Cr	53	490.064	-0.00	-0.2015	0.090	44.815	ug/L
	Mn	55	278.341	0.00	-0.0102	0.003	26.502	ug/L
	Co	59	77.668	0.00	-0.0277	0.001	2.223	ug/L
	Ni	60	39.000	0.00	-0.0268	0.007	25.197	ug/L
	Cu	65	99.335	0.00	-0.0284	0.001	4.058	ug/L
	Zn	66	83.335	0.00	-0.0475	0.028	58.023	ug/L
>	Ge	72	320315.451	320315.45				ug/L
	As	75	-131.407	0.00	0.0182	0.042	229.083	ug/L
	Se	77	64.667	0.00	0.0377	0.118	312.930	ug/L
	Se	82	6.220	0.00	0.1186	0.120	101.396	ug/L
	Rb	85	23.334	-0.00				mg/L
	Y	89	215996.600	2202.21				ug/L
	Rh	103	14.000	0.33				ug/L
	Mo	98	70.567	0.00	-0.0021	0.003	152.702	ug/L
	Ag	107	79.668	0.00	-0.0279	0.001	4.861	ug/L
	Cd	114	7.377	0.00	-0.0232	0.002	7.423	ug/L
>	In	115	289310.940	289310.94				ug/L
	Sn	118	261.071	0.00	0.0002	0.001	562.601	ug/L
	Sb	123	40.993	0.00	-0.0064	0.002	39.209	ug/L
	Ba	135	47.001	0.00	-0.0163	0.006	38.097	ug/L
	Ce	140	140.015	0.00				ug/L
>	Tb	159	402377.616	402377.62				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	61.668	0.00	0.0046	0.001	29.136	ug/L
	Tl	205	126.680	0.00	0.0120	0.003	27.278	ug/L
	Pb	206	199.004	0.00	-0.0075	0.002	31.669	ug/L
	Pb	207	188.004	0.00	-0.0081	0.001	14.734	ug/L
	Pb	208	841.359	0.00	-0.0066	0.000	4.245	ug/L
	U	238	143.669	0.00	-0.0248	0.001	4.147	ug/L
>	Bi	209	320734.360	320734.36				ug/L

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Na	23	13749.386	-0.03	-0.0032	0.000	7.288	mg/L
Mg	24	843.460	0.00	-0.0046	0.000	0.696	mg/L
K	39	448406.552	-0.28	-0.0165	0.003	17.209	mg/L
Ca	43	183.354	-0.00	-0.0096	0.003	33.777	mg/L
Fe	54	30262.895	0.00	-0.0019	0.003	149.708	mg/L
Fe	57	6723.387	-0.00	-0.0068	0.002	23.210	mg/L
Sc-1	45	139559.045	139559.05				mg/L
Cl	35	20277.977	-2204.31				mg/L
Kr	83	51.334	4.00				mg/L
Br	81	6552.575	382.29				mg/L
P	31	8366.269	427.09				mg/L
S	34	129783.261	-10268.40				mg/L
Sr	88	60.006	3.33				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		99.118			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		98.425			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.898			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		98.958			

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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 02, 2012

Method 6020 - Summary Report

Sample ID: PBW 4B WG388449-03

Sample Date/Time: Wednesday, February 01, 2012 19:54:12
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	8337.516	-0.01				ug/L
	Be	9	6.667	-0.00	-0.0917	0.011	11.818	ug/L
	Al	27	8838.027	0.05	2.1129	0.233	11.038	ug/L
>	Sc	45	139509.125	139509.13				ug/L
	Ti	49	43.338	-0.00	-0.2037	0.106	51.813	ug/L
	V	51	1897.512	0.00	-0.0071	0.007	101.683	ug/L
	Cr	52	5978.874	0.00	-0.0024	0.043	1769.864	ug/L
	Cr	53	430.054	-0.00	-0.3039	0.093	30.516	ug/L
	Mn	55	599.694	0.00	0.0260	0.004	17.273	ug/L
	Co	59	54.667	-0.00	-0.0313	0.001	3.213	ug/L
	Ni	60	590.360	0.00	0.3705	0.031	8.452	ug/L
	Cu	65	123.002	0.00	-0.0118	0.008	65.895	ug/L
	Zn	66	329.343	0.00	0.2620	0.026	9.845	ug/L
>	Ge	72	325337.237	325337.24				ug/L
	As	75	-105.785	0.00	0.0496	0.034	68.832	ug/L
	Se	77	62.667	0.00	-0.0096	0.136	1424.809	ug/L
	Se	82	12.916	0.00	0.1989	0.096	48.243	ug/L
	Rb	85	32.334	0.00				mg/L
	Y	89	219406.210	5611.82				ug/L
	Rh	103	7.000	-6.67				ug/L
	Mo	98	39.343	0.00	-0.0176	0.002	13.655	ug/L
	Ag	107	59.667	0.00	-0.0329	0.001	3.338	ug/L
	Cd	114	1.043	-0.00	-0.0299	0.005	18.245	ug/L
>	In	115	291738.813	291738.81				ug/L
	Sn	118	277.471	0.00	0.0044	0.005	105.239	ug/L
	Sb	123	65.122	0.00	0.0012	0.006	530.862	ug/L
	Ba	135	41.667	0.00	-0.0213	0.006	27.166	ug/L
	Ce	140	143.349	0.00				ug/L
>	Tb	159	407821.585	407821.58				ug/L
	Ho	165	0.000	-0.00				ug/L
	Tl	203	34.667	0.00	-0.0007	0.002	302.704	ug/L
	Tl	205	60.006	0.00	0.0067	0.001	11.325	ug/L
	Pb	206	206.671	0.00	-0.0054	0.003	55.910	ug/L
	Pb	207	180.670	0.00	-0.0098	0.002	16.594	ug/L
	Pb	208	807.357	0.00	-0.0084	0.001	17.193	ug/L
	U	238	36.667	-0.00	-0.0292	0.000	1.064	ug/L
>	Bi	209	319322.510	319322.51				ug/L

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Na	23	15445.884	-0.02	-0.0027	0.000	18.580	mg/L
Mg	24	973.492	0.00	-0.0045	0.000	4.292	mg/L
K	39	423449.991	-0.45	-0.0221	0.005	23.053	mg/L
Ca	43	183.354	-0.00	-0.0097	0.008	78.141	mg/L
Fe	54	30758.318	0.01	-0.0006	0.002	378.131	mg/L
Fe	57	6593.272	-0.00	-0.0075	0.004	47.649	mg/L
Sc-1	45	139509.125	139509.13				mg/L
Cl	35	18598.752	-3883.54				mg/L
Kr	83	48.001	0.67				mg/L
Br	81	6400.459	230.17				mg/L
P	31	7832.391	-106.79				mg/L
S	34	117850.895	-22200.77				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		100.672			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		99.251			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		100.236			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		98.523			

Sample ID: PBW 4B WG388449-03
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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: PBW 4B WG388449-03
Report Date/Time: Wednesday, February 01, 2012 19:56:24
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: LCSW 4B WG388449-04

Sample Date/Time: Wednesday, February 01, 2012 20:01:58
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	9188.403	0.00				ug/L
	Be	9	5669.929	0.04	26.6744	1.389	5.207	ug/L
	Al	27	102088.629	0.75	30.8016	0.856	2.778	ug/L
>	Sc	45	133919.187	133919.19				ug/L
	Ti	49	93.343	0.00	-0.0841	0.073	86.340	ug/L
	V	51	169896.785	0.48	24.4753	0.173	0.708	ug/L
	Cr	52	155798.827	0.43	24.9309	0.543	2.178	ug/L
	Cr	53	18542.476	0.05	24.8534	0.682	2.745	ug/L
	Mn	55	251849.216	0.72	26.6418	0.167	0.626	ug/L
	Co	59	184628.579	0.53	25.4582	0.612	2.402	ug/L
	Ni	60	38839.035	0.11	25.9255	0.166	0.640	ug/L
	Cu	65	37650.319	0.11	26.1664	0.810	3.096	ug/L
	Zn	66	26203.754	0.07	30.5972	0.637	2.082	ug/L
>	Ge	72	350719.014	350719.01				ug/L
	As	75	23133.665	0.07	24.8744	0.651	2.616	ug/L
	Se	77	1740.182	0.00	23.9520	1.445	6.033	ug/L
	Se	82	2172.870	0.01	24.9709	1.113	4.458	ug/L
	Rb	85	39.000	0.00				mg/L
	Y	89	213645.127	-149.27				ug/L
	Rh	103	18.334	4.67				ug/L
	Mo	98	114.865	0.00	0.0213	0.006	28.597	ug/L
	Ag	107	110479.627	0.39	27.4236	0.283	1.032	ug/L
	Cd	114	26164.896	0.09	28.2445	0.424	1.501	ug/L
>	In	115	280394.248	280394.25				ug/L
	Sn	118	8979.102	0.03	2.7079	0.035	1.292	ug/L
	Sb	123	84293.525	0.30	27.6988	0.162	0.585	ug/L
	Ba	135	32420.943	0.08	27.9209	0.351	1.256	ug/L
	Ce	140	213.357	0.00				ug/L
>	Tb	159	393192.754	393192.75				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	137363.045	0.44	27.9403	0.317	1.136	ug/L
	Tl	205	338774.398	1.09	27.9032	0.607	2.175	ug/L
	Pb	206	115416.412	0.37	28.9904	0.658	2.268	ug/L
	Pb	207	101662.481	0.33	27.3215	0.576	2.108	ug/L
	Pb	208	469957.507	1.51	28.1324	0.465	1.654	ug/L
	U	238	679466.639	2.19	28.3907	0.534	1.880	ug/L
>	Bi	209	310163.074	310163.07				ug/L

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Na	23	40304.612	0.17	0.0060	0.001	8.596	mg/L
Mg	24	1710.347	0.01	-0.0041	0.000	1.456	mg/L
K	39	456481.488	-0.07	-0.0101	0.008	79.428	mg/L
Ca	43	400.050	0.00	0.0145	0.001	7.673	mg/L
Fe	54	31647.204	0.02	0.0054	0.007	122.838	mg/L
Fe	57	7711.010	0.01	0.0009	0.004	508.087	mg/L
Sc-1	45	133919.187	133919.19				mg/L
Cl	35	19848.281	-2634.01				mg/L
Kr	83	51.667	4.33				mg/L
Br	81	5984.149	-186.14				mg/L
P	31	8270.137	330.96				mg/L
S	34	121405.227	-18646.43				mg/L
Sr	88	670.094	613.42				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					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		108.526			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.391			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.641			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		95.697			

Sample ID: LCSW 4B WG388449-04
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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: LCSW 4B WG388449-04
Report Date/Time: Wednesday, February 01, 2012 20:04:11
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Method 6020 - Summary Report

Sample ID: L1201079801

Sample Date/Time: Wednesday, February 01, 2012 20:09:45
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	9021.584	-0.01				ug/L
	Be	9	7.333	-0.00	-0.0909	0.013	14.844	ug/L
	Al	27	77560.081	0.51	20.7879	6.145	29.561	ug/L
>	Sc	45	150073.068	150073.07				ug/L
	Ti	49	216.691	0.00	0.2746	0.190	69.210	ug/L
	V	51	50727.609	0.15	7.6134	0.094	1.233	ug/L
	Cr	52	9008.958	0.01	0.5317	0.037	6.928	ug/L
	Cr	53	836.793	0.00	0.2990	0.264	88.186	ug/L
	Mn	55	7091.754	0.02	0.7617	0.006	0.747	ug/L
	Co	59	188.671	0.00	-0.0116	0.003	21.742	ug/L
	Ni	60	608.695	0.00	0.3805	0.039	10.359	ug/L
	Cu	65	513.354	0.00	0.2790	0.017	6.185	ug/L
	Zn	66	3410.732	0.01	4.1288	0.093	2.246	ug/L
>	Ge	72	327720.387	327720.39				ug/L
	As	75	2376.431	0.01	2.8868	0.097	3.346	ug/L
	Se	77	99.334	0.00	0.5463	0.345	63.109	ug/L
	Se	82	62.877	0.00	0.8108	0.203	25.064	ug/L
	Rb	85	2330.349	0.01				mg/L
	Y	89	227058.941	13264.55				ug/L
	Rh	103	33.334	19.67				ug/L
	Mo	98	4328.515	0.01	2.0458	0.053	2.578	ug/L
	Ag	107	56.667	0.00	-0.0337	0.002	6.448	ug/L
	Cd	114	2.102	0.00	-0.0288	0.003	10.796	ug/L
>	In	115	294298.519	294298.52				ug/L
	Sn	118	3377.218	0.01	0.9204	0.027	2.972	ug/L
	Sb	123	507.725	0.00	0.1394	0.021	15.112	ug/L
	Ba	135	40971.215	0.10	32.9618	0.112	0.341	ug/L
	Ce	140	1120.190	0.00				ug/L
>	Tb	159	421033.056	421033.06				ug/L
	Ho	165	6.667	-0.00				ug/L
	Tl	203	98.002	0.00	0.0112	0.003	23.062	ug/L
	Tl	205	236.694	0.00	0.0202	0.006	29.778	ug/L
	Pb	206	763.376	0.00	0.1254	0.004	2.889	ug/L
	Pb	207	651.032	0.00	0.1084	0.002	1.439	ug/L
	Pb	208	3017.912	0.01	0.1154	0.005	4.509	ug/L
	U	238	14237.630	0.04	0.5313	0.003	0.594	ug/L
>	Bi	209	328691.628	328691.63				ug/L

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Na	23	22028019.571	146.68	6.6875	0.139	2.072	mg/L
Mg	24	1868957.622	12.46	0.8977	0.029	3.227	mg/L
K	39	3577333.858	20.36	0.6427	0.017	2.705	mg/L
Ca	43	88223.721	0.59	8.4480	0.500	5.917	mg/L
Fe	54	58484.535	0.18	0.0618	0.003	4.350	mg/L
Fe	57	12303.674	0.03	0.0204	0.005	26.486	mg/L
Sc-1	45	150073.068	150073.07				mg/L
Cl	35	87327.247	64844.96				mg/L
Kr	83	52.667	5.33				mg/L
Br	81	19809.582	13639.30				mg/L
P	31	15493.216	7554.04				mg/L
S	34	209221.324	69169.66				mg/L
Sr	88	835063.515	835006.84				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		101.410			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		100.122			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		103.483			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		101.413			

Sample ID: L1201079801
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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: L1201079801
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201082102 WG388449-02

Sample Date/Time: Wednesday, February 01, 2012 20:17:32
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	8954.896	-0.00				ug/L
	Be	9	8.000	-0.00	-0.0846	0.020	23.092	ug/L
	Al	27	263615.486	1.92	78.9632	16.684	21.129	ug/L
>	Sc	45	136289.236	136289.24				ug/L
	Ti	49	1170.225	0.00	3.0648	2.248	73.333	ug/L
	V	51	2717.978	0.00	0.1450	0.015	10.174	ug/L
	Cr	52	7517.132	0.01	0.3484	0.068	19.410	ug/L
	Cr	53	683.430	0.00	0.1335	0.136	101.939	ug/L
	Mn	55	21508.950	0.07	2.5478	0.117	4.582	ug/L
	Co	59	465.684	0.00	0.0336	0.004	12.046	ug/L
	Ni	60	488.353	0.00	0.3160	0.018	5.633	ug/L
	Cu	65	311.009	0.00	0.1422	0.018	12.599	ug/L
	Zn	66	1399.131	0.00	1.7120	0.091	5.315	ug/L
>	Ge	72	308768.475	308768.48				ug/L
	As	75	-98.985	0.00	0.0517	0.028	53.800	ug/L
	Se	77	48.000	-0.00	-0.1940	0.220	113.403	ug/L
	Se	82	0.554	-0.00	0.0466	0.026	56.826	ug/L
	Rb	85	1664.183	0.01				mg/L
	Y	89	210995.449	-2798.94				ug/L
	Rh	103	8.000	-5.67				ug/L
	Mo	98	45.453	0.00	-0.0135	0.006	44.657	ug/L
	Ag	107	42.667	-0.00	-0.0365	0.002	4.615	ug/L
	Cd	114	-4.309	-0.00	-0.0357	0.008	21.946	ug/L
>	In	115	279097.835	279097.83				ug/L
	Sn	118	1720.711	0.01	0.4581	0.005	0.985	ug/L
	Sb	123	101.162	0.00	0.0140	0.002	16.112	ug/L
	Ba	135	4653.346	0.01	3.9558	0.054	1.360	ug/L
	Ce	140	4131.439	0.01				ug/L
>	Tb	159	393566.176	393566.18				ug/L
	Ho	165	46.671	0.00				ug/L
	Tl	203	39.334	0.00	0.0003	0.001	422.565	ug/L
	Tl	205	86.676	0.00	0.0089	0.002	20.421	ug/L
	Pb	206	461.017	0.00	0.0579	0.003	5.538	ug/L
	Pb	207	407.681	0.00	0.0506	0.006	12.404	ug/L
	Pb	208	1880.103	0.00	0.0552	0.002	2.926	ug/L
	U	238	164.003	0.00	-0.0239	0.001	3.166	ug/L
>	Bi	209	316266.215	316266.21				ug/L

Sample ID: L1201082102 WG388449-02
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Na	23	1949768.365	14.18	0.6450	0.022	3.488	mg/L
Mg	24	635334.215	4.66	0.3329	0.008	2.528	mg/L
K	39	1096408.980	4.56	0.1379	0.007	5.119	mg/L
Ca	43	7704.333	0.06	0.7866	0.049	6.189	mg/L
Fe	54	87964.515	0.43	0.1562	0.014	9.186	mg/L
Fe	57	23181.192	0.12	0.0911	0.001	0.906	mg/L
Sc-1	45	136289.236	136289.24				mg/L
Cl	35	27706.008	5223.72				mg/L
Kr	83	51.334	4.00				mg/L
Br	81	7753.606	1583.32				mg/L
P	31	12321.123	4381.94				mg/L
S	34	123968.537	-16083.12				mg/L
Sr	88	43226.227	43169.55				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		95.545			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.950			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.732			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		97.580			

Sample ID: L1201082102 WG388449-02
Report Date/Time: Wednesday, February 01, 2012 20:19:45
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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: L1201082102 WG388449-02
Report Date/Time: Wednesday, February 01, 2012 20:19:45
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Method 6020 - Summary Report

Sample ID: L1201082105S WG388449-07

Sample Date/Time: Wednesday, February 01, 2012 20:25:19
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	9054.923	-0.00				ug/L
	Be	9	5031.520	0.04	22.7851	1.056	4.636	ug/L
	Al	27	401504.171	2.89	118.4376	12.758	10.772	ug/L
>	Sc	45	138899.487	138899.49				ug/L
	Ti	49	543.406	0.00	1.2404	0.180	14.490	ug/L
	V	51	154415.875	0.49	24.8481	0.451	1.814	ug/L
	Cr	52	144278.637	0.44	25.8261	0.339	1.314	ug/L
	Cr	53	16524.686	0.05	24.7382	0.416	1.681	ug/L
	Mn	55	276775.199	0.88	32.7108	0.129	0.393	ug/L
	Co	59	170459.809	0.54	26.2504	0.122	0.464	ug/L
	Ni	60	34861.450	0.11	25.9919	0.276	1.062	ug/L
	Cu	65	33769.640	0.11	26.2172	0.597	2.276	ug/L
	Zn	66	19134.469	0.06	24.9305	0.476	1.910	ug/L
>	Ge	72	314016.184	314016.18				ug/L
	As	75	19809.590	0.06	23.7978	0.013	0.056	ug/L
	Se	77	1498.135	0.00	22.9985	1.504	6.538	ug/L
	Se	82	1708.457	0.01	21.9297	0.180	0.821	ug/L
	Rb	85	2091.284	0.01				mg/L
	Y	89	208691.610	-5102.78				ug/L
	Rh	103	18.334	4.67				ug/L
	Mo	98	55.192	0.00	-0.0093	0.004	45.895	ug/L
	Ag	107	104424.353	0.37	25.4143	0.356	1.400	ug/L
	Cd	114	22691.396	0.08	24.0168	0.408	1.700	ug/L
>	In	115	285927.536	285927.54				ug/L
	Sn	118	306.539	0.00	0.0150	0.004	25.556	ug/L
	Sb	123	73034.921	0.26	23.5333	0.287	1.220	ug/L
	Ba	135	34840.706	0.09	29.3784	0.845	2.878	ug/L
	Ce	140	7110.411	0.02				ug/L
>	Tb	159	401746.491	401746.49				ug/L
	Ho	165	90.010	0.00				ug/L
	Tl	203	126297.164	0.40	25.2354	0.127	0.502	ug/L
	Tl	205	311496.231	0.99	25.2035	0.262	1.038	ug/L
	Pb	206	107906.598	0.34	26.6189	0.228	0.857	ug/L
	Pb	207	94300.845	0.30	24.8914	0.445	1.789	ug/L
	Pb	208	440004.158	1.39	25.8692	0.235	0.907	ug/L
	U	238	633911.733	2.01	26.0144	0.109	0.421	ug/L
>	Bi	209	315748.157	315748.16				ug/L

Sample ID: L1201082105S WG388449-07
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Na	23	1977771.596	14.12	0.6421	0.016	2.517	mg/L
Mg	24	673369.689	4.85	0.3464	0.006	1.731	mg/L
K	39	1141268.621	4.74	0.1436	0.011	7.596	mg/L
Ca	43	7767.742	0.05	0.7768	0.043	5.556	mg/L
Fe	54	109149.513	0.57	0.2081	0.013	6.339	mg/L
Fe	57	30682.820	0.17	0.1324	0.014	10.208	mg/L
Sc-1	45	138899.487	138899.49				mg/L
Cl	35	26374.338	3892.05				mg/L
Kr	83	47.334	0.00				mg/L
Br	81	7750.936	1580.65				mg/L
P	31	15343.561	7404.38				mg/L
S	34	120259.753	-19791.91				mg/L
Sr	88	46705.181	46648.51				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		97.169			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		97.274			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.743			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		97.420			

Sample ID: L1201082105S WG388449-07
Report Date/Time: Wednesday, February 01, 2012 20:27:32
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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: L1201082105S WG388449-07
Report Date/Time: Wednesday, February 01, 2012 20:27:32
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201082108SD WG388449-08

Sample Date/Time: Wednesday, February 01, 2012 20:33:07
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	8370.911	-0.00				ug/L
	Be	9	4764.029	0.04	22.4560	0.727	3.238	ug/L
	Al	27	380807.164	2.85	116.8744	21.110	18.062	ug/L
>	Sc	45	133341.861	133341.86				ug/L
	Ti	49	1670.450	0.01	4.6825	5.108	109.098	ug/L
	V	51	148907.036	0.49	24.8793	0.269	1.080	ug/L
	Cr	52	138527.778	0.44	25.7415	0.399	1.549	ug/L
	Cr	53	16748.520	0.05	26.0772	1.430	5.484	ug/L
	Mn	55	263161.187	0.87	32.2883	0.061	0.188	ug/L
	Co	59	158500.130	0.52	25.3386	0.099	0.392	ug/L
	Ni	60	33569.491	0.11	25.9831	0.363	1.397	ug/L
	Cu	65	31816.609	0.10	25.6408	0.225	0.878	ug/L
	Zn	66	18444.240	0.06	24.9482	0.306	1.226	ug/L
>	Ge	72	302473.842	302473.84				ug/L
	As	75	18966.970	0.06	23.6585	0.452	1.911	ug/L
	Se	77	1382.782	0.00	21.9987	0.963	4.379	ug/L
	Se	82	1717.730	0.01	22.8897	0.724	3.163	ug/L
	Rb	85	2050.606	0.01				mg/L
	Y	89	199523.595	-14270.80				ug/L
	Rh	103	12.667	-1.00				ug/L
	Mo	98	47.790	0.00	-0.0116	0.004	33.160	ug/L
	Ag	107	99122.065	0.37	25.5490	0.764	2.991	ug/L
	Cd	114	21332.725	0.08	23.9058	0.405	1.694	ug/L
>	In	115	270105.500	270105.50				ug/L
	Sn	118	286.005	0.00	0.0139	0.006	41.653	ug/L
	Sb	123	69946.617	0.26	23.8603	0.226	0.947	ug/L
	Ba	135	33241.171	0.09	29.6075	0.488	1.648	ug/L
	Ce	140	7157.123	0.02				ug/L
>	Tb	159	380242.483	380242.48				ug/L
	Ho	165	120.013	0.00				ug/L
	Tl	203	120025.771	0.39	24.7830	0.189	0.764	ug/L
	Tl	205	293481.780	0.96	24.5390	0.426	1.737	ug/L
	Pb	206	103236.906	0.34	26.3171	0.153	0.583	ug/L
	Pb	207	89910.672	0.29	24.5221	0.169	0.691	ug/L
	Pb	208	417267.743	1.36	25.3508	0.260	1.027	ug/L
	U	238	603558.224	1.98	25.5971	0.208	0.814	ug/L
>	Bi	209	305537.837	305537.84				ug/L

Sample ID: L1201082108SD WG388449-08
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Na	23	1923074.537	14.29	0.6499	0.005	0.718	mg/L
Mg	24	641743.842	4.81	0.3438	0.007	2.151	mg/L
K	39	1115991.387	4.88	0.1483	0.010	6.985	mg/L
Ca	43	7360.661	0.05	0.7669	0.055	7.136	mg/L
Fe	54	110636.939	0.62	0.2239	0.006	2.640	mg/L
Fe	57	30281.316	0.17	0.1370	0.008	5.812	mg/L
Sc-1	45	133341.861	133341.86				mg/L
Cl	35	25099.077	2616.79				mg/L
Kr	83	54.667	7.33				mg/L
Br	81	7568.783	1398.50				mg/L
P	31	14843.247	6904.07				mg/L
S	34	117945.585	-22106.08				mg/L
Sr	88	45310.720	45254.05				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		93.597			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		91.891			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		93.458			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.270			

Sample ID: L1201082108SD WG388449-08
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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: L1201082108SD WG388449-08
Report Date/Time: Wednesday, February 01, 2012 20:35:20
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201082111

Sample Date/Time: Wednesday, February 01, 2012 20:40:55
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 44
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	8287.458	-0.01				ug/L
	Be	9	10.667	0.00	-0.0751	0.016	21.573	ug/L
	Al	27	213094.258	1.48	60.9653	2.884	4.730	ug/L
>	Sc	45	141952.029	141952.03				ug/L
	Ti	49	460.059	0.00	1.0125	0.312	30.825	ug/L
	V	51	2702.354	0.00	0.1393	0.004	2.954	ug/L
	Cr	52	7852.778	0.01	0.4009	0.021	5.220	ug/L
	Cr	53	603.416	0.00	-0.0017	0.070	4057.786	ug/L
	Mn	55	39720.520	0.13	4.7057	0.054	1.145	ug/L
	Co	59	543.690	0.00	0.0452	0.003	6.367	ug/L
	Ni	60	534.356	0.00	0.3480	0.004	1.061	ug/L
	Cu	65	284.341	0.00	0.1196	0.009	7.603	ug/L
	Zn	66	2298.006	0.01	2.8883	0.019	0.662	ug/L
>	Ge	72	310851.425	310851.42				ug/L
	As	75	-128.841	0.00	0.0162	0.017	106.624	ug/L
	Se	77	63.334	0.00	0.0451	0.146	323.850	ug/L
	Se	82	-1.096	-0.00	0.0248	0.086	346.972	ug/L
	Rb	85	1606.838	0.01				mg/L
	Y	89	204110.284	-9684.11				ug/L
	Rh	103	9.333	-4.33				ug/L
	Mo	98	40.567	0.00	-0.0162	0.003	16.871	ug/L
	Ag	107	61.668	0.00	-0.0318	0.002	4.892	ug/L
	Cd	114	-4.751	-0.00	-0.0362	0.008	23.415	ug/L
>	In	115	280562.418	280562.42				ug/L
	Sn	118	2602.673	0.01	0.7291	0.027	3.684	ug/L
	Sb	123	207.205	0.00	0.0488	0.011	23.270	ug/L
	Ba	135	4603.984	0.01	3.8444	0.083	2.156	ug/L
	Ce	140	3704.531	0.01				ug/L
>	Tb	159	400522.984	400522.98				ug/L
	Ho	165	70.007	0.00				ug/L
	Tl	203	43.001	0.00	0.0008	0.002	185.255	ug/L
	Tl	205	90.010	0.00	0.0090	0.004	40.636	ug/L
	Pb	206	440.683	0.00	0.0505	0.006	11.775	ug/L
	Pb	207	394.347	0.00	0.0448	0.004	9.302	ug/L
	Pb	208	1767.091	0.00	0.0463	0.003	7.427	ug/L
	U	238	172.670	0.00	-0.0237	0.001	3.668	ug/L
>	Bi	209	323235.213	323235.21				ug/L

Sample ID: L1201082111
Report Date/Time: Wednesday, February 01, 2012 20:43:08
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Na	23	2054519.257	14.40	0.6548	0.060	9.181	mg/L
Mg	24	689298.678	4.87	0.3483	0.035	10.048	mg/L
K	39	1117840.345	4.41	0.1333	0.021	15.740	mg/L
Ca	43	7100.401	0.05	0.6936	0.038	5.432	mg/L
Fe	54	101931.304	0.51	0.1832	0.011	5.989	mg/L
Fe	57	24909.666	0.12	0.0958	0.008	7.887	mg/L
Sc-1	45	141952.029	141952.03				mg/L
Cl	35	27314.696	4832.41				mg/L
Kr	83	49.334	2.00				mg/L
Br	81	8484.321	2314.03				mg/L
P	31	16167.676	8228.50				mg/L
S	34	123354.496	-16697.16				mg/L
Sr	88	43705.401	43648.73				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		96.190			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.449			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.442			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		99.730			

Sample ID: L1201082111
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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: L1201082111
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201082111PS WG388495-01

Sample Date/Time: Wednesday, February 01, 2012 20:48:43
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	8871.462	-0.00				ug/L
	Be	9	9662.267	0.07	45.5229	3.733	8.200	ug/L
	Al	27	380770.878	2.84	116.6029	19.461	16.690	ug/L
>	Sc	45	134190.953	134190.95				ug/L
	Ti	49	483.396	0.00	1.1452	0.138	12.030	ug/L
	V	51	292115.925	0.98	49.9572	0.844	1.689	ug/L
	Cr	52	265488.453	0.87	51.2232	1.313	2.564	ug/L
	Cr	53	31720.202	0.11	51.1473	3.210	6.276	ug/L
	Mn	55	441785.114	1.49	55.1791	1.043	1.891	ug/L
	Co	59	312509.542	1.05	50.8727	0.737	1.449	ug/L
	Ni	60	64822.873	0.22	51.1079	1.513	2.960	ug/L
	Cu	65	63485.877	0.21	52.1616	0.304	0.583	ug/L
	Zn	66	34966.567	0.12	48.2617	0.737	1.527	ug/L
>	Ge	72	297294.948	297294.95				ug/L
	As	75	36720.433	0.12	46.4336	0.620	1.335	ug/L
	Se	77	2663.760	0.01	44.0783	2.837	6.436	ug/L
	Se	82	3187.573	0.01	43.1750	0.791	1.831	ug/L
	Rb	85	1547.159	0.01				mg/L
	Y	89	202532.798	-11261.59				ug/L
	Rh	103	21.334	7.67				ug/L
	Mo	98	71.754	0.00	0.0013	0.009	668.009	ug/L
	Ag	107	197290.014	0.74	51.2711	1.021	1.992	ug/L
	Cd	114	42139.772	0.16	47.6116	1.975	4.147	ug/L
>	In	115	268003.270	268003.27				ug/L
	Sn	118	2199.224	0.01	0.6356	0.014	2.203	ug/L
	Sb	123	140664.839	0.52	48.3754	0.499	1.031	ug/L
	Ba	135	60095.850	0.16	52.9881	1.032	1.948	ug/L
	Ce	140	3411.040	0.01				ug/L
>	Tb	159	384473.680	384473.68				ug/L
	Ho	165	56.673	0.00				ug/L
	Tl	203	238695.477	0.78	49.1257	0.332	0.676	ug/L
	Tl	205	590275.139	1.93	49.1918	1.721	3.499	ug/L
	Pb	206	203346.650	0.66	51.7199	1.109	2.144	ug/L
	Pb	207	179346.574	0.58	48.8080	0.852	1.745	ug/L
	Pb	208	825232.809	2.69	50.0229	0.885	1.768	ug/L
	U	238	1224684.528	4.00	51.7998	1.171	2.260	ug/L
>	Bi	209	306599.437	306599.44				ug/L

Sample ID: L1201082111PS WG388495-01
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Na	23	1994328.864	14.77	0.6718	0.046	6.783	mg/L
Mg	24	681964.973	5.10	0.3644	0.030	8.353	mg/L
K	39	1076883.561	4.55	0.1375	0.008	6.164	mg/L
Ca	43	6916.894	0.05	0.7162	0.055	7.623	mg/L
Fe	54	94291.134	0.49	0.1778	0.020	11.154	mg/L
Fe	57	23709.390	0.12	0.0967	0.006	6.013	mg/L
Sc-1	45	134190.953	134190.95				mg/L
Cl	35	25878.789	3396.50				mg/L
Kr	83	48.334	1.00				mg/L
Br	81	7669.530	1499.24				mg/L
P	31	15461.966	7522.79				mg/L
S	34	113456.642	-26595.02				mg/L
Sr	88	42887.721	42831.05				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		91.995			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		91.176			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		94.498			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.597			

Sample ID: L1201082111PS WG388495-01
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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: L1201082111PS WG388495-01
Report Date/Time: Wednesday, February 01, 2012 20:50:56
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201082111SDL WG388495-02

Sample Date/Time: Wednesday, February 01, 2012 20:56:31
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 46
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	8254.137	-0.00				ug/L
	Be	9	8.667	0.00	-0.0797	0.010	12.750	ug/L
	Al	27	36982.487	0.27	11.2547	0.982	8.728	ug/L
>	Sc	45	129042.215	129042.21				ug/L
	Ti	49	100.011	0.00	-0.0258	0.077	298.033	ug/L
	V	51	1809.006	0.00	0.0004	0.020	5546.869	ug/L
	Cr	52	5550.570	0.00	-0.0041	0.018	431.688	ug/L
	Cr	53	393.382	-0.00	-0.3136	0.151	48.175	ug/L
	Mn	55	7407.033	0.02	0.8673	0.035	4.022	ug/L
	Co	59	168.003	0.00	-0.0126	0.004	31.441	ug/L
	Ni	60	385.013	0.00	0.2432	0.003	1.285	ug/L
	Cu	65	123.335	0.00	-0.0046	0.008	170.645	ug/L
	Zn	66	658.033	0.00	0.7405	0.032	4.378	ug/L
>	Ge	72	302597.184	302597.18				ug/L
	As	75	-152.376	-0.00	-0.0170	0.037	217.449	ug/L
	Se	77	50.667	-0.00	-0.1369	0.048	35.129	ug/L
	Se	82	-3.409	-0.00	-0.0061	0.053	871.527	ug/L
	Rb	85	303.009	0.00				mg/L
	Y	89	198723.934	-15070.46				ug/L
	Rh	103	6.667	-7.00				ug/L
	Mo	98	85.124	0.00	0.0079	0.008	98.324	ug/L
	Ag	107	83.001	0.00	-0.0258	0.001	5.561	ug/L
	Cd	114	9.682	0.00	-0.0201	0.010	51.733	ug/L
>	In	115	270325.075	270325.07				ug/L
	Sn	118	612.689	0.00	0.1188	0.008	7.037	ug/L
	Sb	123	211.872	0.00	0.0529	0.002	4.360	ug/L
	Ba	135	884.056	0.00	0.7397	0.054	7.356	ug/L
	Ce	140	650.091	0.00				ug/L
>	Tb	159	377279.822	377279.82				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	70.334	0.00	0.0069	0.003	48.745	ug/L
	Tl	205	143.349	0.00	0.0138	0.003	24.382	ug/L
	Pb	206	257.007	0.00	0.0097	0.002	19.358	ug/L
	Pb	207	222.672	0.00	0.0037	0.003	93.492	ug/L
	Pb	208	1029.035	0.00	0.0072	0.001	15.971	ug/L
	U	238	213.005	0.00	-0.0216	0.002	8.989	ug/L
>	Bi	209	305806.132	305806.13				ug/L

Sample ID: L1201082111SDL WG388495-02
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Na	23	401885.165	2.99	0.1344	0.005	3.906	mg/L
Mg	24	130992.022	1.01	0.0686	0.004	6.448	mg/L
K	39	535146.926	0.66	0.0134	0.005	36.365	mg/L
Ca	43	1396.925	0.01	0.1279	0.024	18.884	mg/L
Fe	54	26759.428	-0.00	-0.0054	0.002	41.594	mg/L
Fe	57	8945.720	0.02	0.0102	0.004	44.087	mg/L
Sc-1	45	129042.215	129042.21				mg/L
Cl	35	18683.593	-3798.69				mg/L
Kr	83	47.001	-0.33				mg/L
Br	81	6113.580	-56.71				mg/L
P	31	6399.792	-1539.39				mg/L
S	34	114364.816	-25686.84				mg/L
Sr	88	8234.895	8178.22				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		93.636			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		91.966			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		92.729			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.352			

Sample ID: L1201082111SDL WG388495-02
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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: L1201082111SDL WG388495-02
Report Date/Time: Wednesday, February 01, 2012 20:58:45
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 01, 2012 21:04:20
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	8120.659	-0.01				ug/L
	Be	9	9896.543	0.07	46.4325	1.807	3.893	ug/L
	Al	27	152635.169	1.12	46.1513	2.402	5.204	ug/L
>	Sc	45	134478.278	134478.28				ug/L
	Ti	49	33701.411	0.11	100.2727	2.259	2.253	ug/L
	V	51	289833.964	0.95	48.6548	0.462	0.950	ug/L
	Cr	52	258499.105	0.84	48.9113	0.529	1.081	ug/L
	Cr	53	30599.149	0.10	48.3735	1.191	2.462	ug/L
	Mn	55	402618.418	1.33	49.3652	0.097	0.197	ug/L
	Co	59	309748.507	1.02	49.4985	0.232	0.470	ug/L
	Ni	60	63762.032	0.21	49.3434	0.767	1.555	ug/L
	Cu	65	62448.450	0.21	50.3650	0.547	1.087	ug/L
	Zn	66	37071.333	0.12	50.2352	0.696	1.386	ug/L
>	Ge	72	302822.702	302822.70				ug/L
	As	75	39093.592	0.13	48.5187	0.512	1.055	ug/L
	Se	77	3024.549	0.01	49.2228	1.532	3.112	ug/L
	Se	82	3702.770	0.01	49.2383	1.060	2.152	ug/L
	Rb	85	1469.478	0.00				mg/L
	Y	89	196305.870	-17488.52				ug/L
	Rh	103	37.000	23.33				ug/L
	Mo	98	193385.414	0.71	100.6814	0.979	0.973	ug/L
	Ag	107	198836.153	0.73	50.9490	0.265	0.521	ug/L
	Cd	114	44263.730	0.16	49.3295	1.677	3.399	ug/L
>	In	115	271828.284	271828.28				ug/L
	Sn	118	156342.730	0.57	49.9658	0.495	0.991	ug/L
	Sb	123	145728.273	0.54	49.4179	1.158	2.342	ug/L
	Ba	135	56296.776	0.15	50.1803	0.882	1.759	ug/L
	Ce	140	80.008	0.00				ug/L
>	Tb	159	380244.489	380244.49				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	236215.750	0.77	48.8725	0.366	0.749	ug/L
	Tl	205	589466.685	1.93	49.3730	0.632	1.281	ug/L
	Pb	206	190738.438	0.62	48.7638	0.541	1.110	ug/L
	Pb	207	179217.089	0.59	49.0401	1.546	3.152	ug/L
	Pb	208	805296.262	2.64	49.0721	0.799	1.629	ug/L
	U	238	1227073.265	4.02	52.1744	1.014	1.943	ug/L
>	Bi	209	304980.286	304980.29				ug/L

Sample ID: QC Std 6
Report Date/Time: Wednesday, February 01, 2012 21:06:33
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Na	23	13318000.920	98.99	4.5128	0.160	3.538	mg/L
Mg	24	8552198.096	63.64	4.6058	0.143	3.097	mg/L
K	39	20941782.803	152.39	4.8616	0.189	3.895	mg/L
Ca	43	45498.426	0.34	4.8536	0.244	5.019	mg/L
Fe	54	1854575.957	13.62	5.0156	0.468	9.328	mg/L
Fe	57	821107.569	6.06	4.8686	0.220	4.519	mg/L
Sc-1	45	134478.278	134478.28				mg/L
Cl	35	18217.901	-4264.39				mg/L
Kr	83	51.334	4.00				mg/L
Br	81	6192.971	22.68				mg/L
P	31	7991.831	52.65				mg/L
S	34	120586.964	-19464.70				mg/L
Sr	88	3214.275	3157.60				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	97.310				
Cr	52	97.823				
Cr	53					
Mn	55	98.730				
Co	59	98.997				
Ni	60	98.687				
Cu	65	100.730				
Zn	66	100.470				
Ge	72		93.705			
As	75	97.037				
Se	77					
Se	82	98.477				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	101.898				
Cd	114	98.659				
In	115		92.477			
Sn	118					
Sb	123	98.836				
Ba	135	100.361				
Ce	140					
Tb	159		93.458			
Ho	165					
Tl	203	97.745				
Tl	205					
Pb	206					
Pb	207					
Pb	208	98.144				
U	238	104.349				
Bi	209		94.098			

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: Wednesday, February 01, 2012 21:06:33
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 01, 2012 21:11:57
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	7753.626	-0.01				ug/L
	Be	9	7.333	-0.00	-0.0886	0.012	13.754	ug/L
	Al	27	1716.844	-0.00	0.0102	0.008	74.540	ug/L
>	Sc	45	140443.439	140443.44				ug/L
	Ti	49	50.005	0.00	-0.1810	0.002	0.991	ug/L
	V	51	1893.956	0.00	0.0016	0.007	431.019	ug/L
	Cr	52	5926.167	0.00	0.0214	0.023	106.121	ug/L
	Cr	53	453.391	-0.00	-0.2486	0.121	48.707	ug/L
	Mn	55	309.009	0.00	-0.0061	0.004	67.145	ug/L
	Co	59	107.002	0.00	-0.0230	0.003	10.969	ug/L
	Ni	60	37.000	0.00	-0.0278	0.002	7.015	ug/L
	Cu	65	102.002	0.00	-0.0251	0.010	38.308	ug/L
	Zn	66	91.001	0.00	-0.0361	0.006	16.474	ug/L
>	Ge	72	315520.213	315520.21				ug/L
	As	75	-112.763	0.00	0.0372	0.071	191.658	ug/L
	Se	77	53.334	-0.00	-0.1304	0.337	258.348	ug/L
	Se	82	4.945	0.00	0.1016	0.118	116.344	ug/L
	Rb	85	32.667	0.00				mg/L
	Y	89	211815.886	-1978.51				ug/L
	Rh	103	11.667	-2.00				ug/L
	Mo	98	105.052	0.00	0.0153	0.005	35.280	ug/L
	Ag	107	89.335	0.00	-0.0253	0.004	16.270	ug/L
	Cd	114	14.746	0.00	-0.0153	0.002	11.107	ug/L
>	In	115	285829.776	285829.78				ug/L
	Sn	118	281.605	0.00	0.0074	0.002	23.301	ug/L
	Sb	123	90.367	0.00	0.0098	0.003	31.992	ug/L
	Ba	135	45.001	0.00	-0.0180	0.003	18.948	ug/L
	Ce	140	26.669	-0.00				ug/L
>	Tb	159	401914.575	401914.58				ug/L
	Ho	165	10.001	0.00				ug/L
	Tl	203	80.668	0.00	0.0084	0.006	68.704	ug/L
	Tl	205	136.682	0.00	0.0128	0.006	43.210	ug/L
	Pb	206	220.338	0.00	-0.0023	0.004	167.294	ug/L
	Pb	207	210.671	0.00	-0.0022	0.004	167.892	ug/L
	Pb	208	944.031	0.00	-0.0007	0.004	549.666	ug/L
	U	238	250.006	0.00	-0.0205	0.003	15.896	ug/L
>	Bi	209	320821.420	320821.42				ug/L

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⌈	Na	23	14894.833	-0.02	-0.0029	0.000	10.024	mg/L
|	Mg	24	1546.973	0.01	-0.0042	0.000	4.811	mg/L
|	K	39	430831.647	-0.42	-0.0210	0.005	25.105	mg/L
|	Ca	43	193.355	-0.00	-0.0087	0.006	75.043	mg/L
|	Fe	54	28548.332	-0.01	-0.0068	0.003	48.909	mg/L
|	Fe	57	7223.863	-0.00	-0.0041	0.004	110.632	mg/L
⌊>	Sc-1	45	140443.439	140443.44				mg/L
	Cl	35	19158.003	-3324.28				mg/L
	Kr	83	44.667	-2.67				mg/L
	Br	81	6657.328	487.04				mg/L
	P	31	8539.044	599.86				mg/L
	S	34	125791.848	-14259.81				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		97.634			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		97.241			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		98.784			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		98.985			

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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 02, 2012

Method 6020 - Summary Report

Sample ID: L1201080805 WG388449-01

Sample Date/Time: Wednesday, February 01, 2012 21:19:32
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 47
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	8254.096	-0.00				ug/L
	Be	9	10.000	0.00	-0.0740	0.011	15.074	ug/L
	Al	27	91247.854	0.68	27.7975	2.123	7.637	ug/L
>	Sc	45	132564.822	132564.82				ug/L
	Ti	49	343.375	0.00	0.6811	0.187	27.402	ug/L
	V	51	3388.424	0.01	0.2562	0.025	9.754	ug/L
	Cr	52	20370.407	0.05	2.7871	0.029	1.053	ug/L
	Cr	53	1987.104	0.00	2.1953	0.366	16.658	ug/L
	Mn	55	36625.344	0.12	4.3681	0.040	0.911	ug/L
	Co	59	1007.404	0.00	0.1186	0.001	1.037	ug/L
	Ni	60	1442.806	0.00	1.0417	0.039	3.713	ug/L
	Cu	65	1472.478	0.00	1.0636	0.052	4.895	ug/L
	Zn	66	5705.009	0.02	7.4555	0.035	0.466	ug/L
>	Ge	72	308588.648	308588.65				ug/L
	As	75	71.484	0.00	0.2584	0.063	24.542	ug/L
	Se	77	60.000	0.00	-0.0019	0.284	15000.379	ug/L
	Se	82	24.876	0.00	0.3634	0.230	63.402	ug/L
	Rb	85	4182.758	0.01				mg/L
	Y	89	203457.184	-10337.21				ug/L
	Rh	103	18.000	4.33				ug/L
	Mo	98	4483.297	0.02	2.2921	0.079	3.425	ug/L
	Ag	107	289.675	0.00	0.0270	0.004	13.079	ug/L
	Cd	114	-20.467	-0.00	-0.0537	0.008	15.192	ug/L
>	In	115	272603.400	272603.40				ug/L
	Sn	118	18290.986	0.07	5.7599	0.089	1.550	ug/L
	Sb	123	867.128	0.00	0.2738	0.011	3.890	ug/L
	Ba	135	22367.535	0.06	19.6733	0.333	1.690	ug/L
	Ce	140	1000.160	0.00				ug/L
>	Tb	159	384729.049	384729.05				ug/L
	Ho	165	46.671	0.00				ug/L
	Tl	203	55.667	0.00	0.0039	0.001	30.057	ug/L
	Tl	205	136.682	0.00	0.0132	0.003	21.274	ug/L
	Pb	206	3564.465	0.01	0.8529	0.011	1.334	ug/L
	Pb	207	2945.884	0.01	0.7471	0.039	5.161	ug/L
	Pb	208	13962.420	0.04	0.7932	0.021	2.674	ug/L
	U	238	2200.979	0.01	0.0626	0.002	3.218	ug/L
>	Bi	209	306166.989	306166.99				ug/L

Sample ID: L1201080805 WG388449-01
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Na	23	106691329.249	806.20	36.7650	2.220	6.038	mg/L
Mg	24	3333631.656	25.19	1.8204	0.130	7.124	mg/L
K	39	3499628.488	22.95	0.7257	0.037	5.158	mg/L
Ca	43	42639.880	0.32	4.6068	0.045	0.984	mg/L
Fe	54	66544.409	0.29	0.1035	0.012	11.788	mg/L
Fe	57	27912.793	0.16	0.1240	0.008	6.407	mg/L
Sc-1	45	132564.822	132564.82				mg/L
Cl	35	142641.853	120159.57				mg/L
Kr	83	52.667	5.33				mg/L
Br	81	15239.954	9069.67				mg/L
P	31	60388.173	52448.99				mg/L
S	34	161090.119	21038.46				mg/L
Sr	88	211142.430	211085.76				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		95.490			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		92.741			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		94.560			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		94.464			

Sample ID: L1201080805 WG388449-01
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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: L1201080805 WG388449-01
Report Date/Time: Wednesday, February 01, 2012 21:21:44
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201080805DP WG388449-05

Sample Date/Time: Wednesday, February 01, 2012 21:27:18
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 48
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	8754.607	-0.00				ug/L
	Be	9	3.333	-0.00	-0.1068	0.005	4.985	ug/L
	Al	27	98141.480	0.69	28.3419	0.513	1.808	ug/L
>	Sc	45	139609.816	139609.82				ug/L
	Ti	49	346.709	0.00	0.6656	0.153	23.021	ug/L
	V	51	3225.779	0.00	0.2162	0.023	10.573	ug/L
	Cr	52	20506.741	0.05	2.7186	0.094	3.465	ug/L
	Cr	53	2247.195	0.01	2.5207	0.253	10.047	ug/L
	Mn	55	38132.817	0.12	4.4364	0.092	2.064	ug/L
	Co	59	1029.407	0.00	0.1181	0.006	4.897	ug/L
	Ni	60	1168.094	0.00	0.8115	0.051	6.274	ug/L
	Cu	65	1707.192	0.01	1.2168	0.042	3.432	ug/L
	Zn	66	5901.816	0.02	7.5241	0.071	0.939	ug/L
>	Ge	72	316353.818	316353.82				ug/L
	As	75	105.871	0.00	0.2963	0.088	29.582	ug/L
	Se	77	72.000	0.00	0.1683	0.244	144.815	ug/L
	Se	82	27.890	0.00	0.3925	0.269	68.660	ug/L
	Rb	85	4295.483	0.01				mg/L
	Y	89	203741.564	-10052.83				ug/L
	Rh	103	21.667	8.00				ug/L
	Mo	98	5810.098	0.02	2.9383	0.086	2.920	ug/L
	Ag	107	278.674	0.00	0.0231	0.008	34.203	ug/L
	Cd	114	-25.530	-0.00	-0.0589	0.012	20.040	ug/L
>	In	115	276495.135	276495.13				ug/L
	Sn	118	21006.578	0.08	6.5321	0.089	1.361	ug/L
	Sb	123	872.047	0.00	0.2715	0.018	6.734	ug/L
	Ba	135	23279.040	0.06	20.1470	0.186	0.925	ug/L
	Ce	140	1013.497	0.00				ug/L
>	Tb	159	390959.255	390959.25				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	63.668	0.00	0.0053	0.001	11.699	ug/L
	Tl	205	106.678	0.00	0.0106	0.004	40.690	ug/L
	Pb	206	3749.881	0.01	0.8774	0.040	4.592	ug/L
	Pb	207	3213.652	0.01	0.7984	0.010	1.308	ug/L
	Pb	208	14924.080	0.05	0.8296	0.021	2.484	ug/L
	U	238	2135.962	0.01	0.0577	0.002	4.304	ug/L
>	Bi	209	313784.642	313784.64				ug/L

Sample ID: L1201080805DP WG388449-05
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Na	23	113300045.681	811.51	37.0071	0.635	1.716	mg/L
Mg	24	3520888.188	25.22	1.8223	0.041	2.251	mg/L
K	39	3625773.914	22.48	0.7106	0.007	1.035	mg/L
Ca	43	44536.524	0.32	4.5682	0.166	3.643	mg/L
Fe	54	70890.214	0.30	0.1053	0.006	5.523	mg/L
Fe	57	29093.664	0.16	0.1220	0.008	6.779	mg/L
Sc-1	45	139609.816	139609.82				mg/L
Cl	35	150216.593	127734.31				mg/L
Kr	83	51.001	3.67				mg/L
Br	81	17254.523	11084.24				mg/L
P	31	62513.657	54574.48				mg/L
S	34	183889.189	43837.53				mg/L
Sr	88	214279.953	214223.28				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					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		97.892			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		94.065			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.092			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.814			

Sample ID: L1201080805DP WG388449-05
Report Date/Time: Wednesday, February 01, 2012 21:29:30
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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: L1201080805DP WG388449-05
Report Date/Time: Wednesday, February 01, 2012 21:29:30
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201080805S WG388449-06

Sample Date/Time: Wednesday, February 01, 2012 21:35:04
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 49
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	8704.553	-0.00				ug/L
	Be	9	990.059	0.01	4.6724	0.565	12.090	ug/L
	Al	27	97450.025	0.73	30.0681	0.404	1.345	ug/L
>	Sc	45	130853.603	130853.60				ug/L
	Ti	49	283.367	0.00	0.5335	0.272	51.006	ug/L
	V	51	31569.378	0.10	5.1131	0.143	2.790	ug/L
	Cr	52	43735.236	0.13	7.5144	0.187	2.483	ug/L
	Cr	53	5002.002	0.02	7.2446	0.428	5.903	ug/L
	Mn	55	74467.066	0.25	9.2414	0.239	2.586	ug/L
	Co	59	31464.947	0.11	5.0726	0.095	1.868	ug/L
	Ni	60	7529.475	0.03	5.8711	0.107	1.825	ug/L
	Cu	65	7600.875	0.03	6.1350	0.047	0.773	ug/L
	Zn	66	9147.109	0.03	12.4779	0.265	2.126	ug/L
>	Ge	72	298137.635	298137.64				ug/L
	As	75	4082.641	0.01	5.2995	0.214	4.030	ug/L
	Se	77	350.674	0.00	4.9408	0.578	11.700	ug/L
	Se	82	411.542	0.00	5.5912	0.161	2.885	ug/L
	Rb	85	4028.014	0.01				mg/L
	Y	89	200547.649	-13246.74				ug/L
	Rh	103	17.334	3.67				ug/L
	Mo	98	4072.383	0.02	2.1853	0.045	2.068	ug/L
	Ag	107	19174.564	0.07	5.1048	0.053	1.035	ug/L
	Cd	114	4385.725	0.02	5.0909	0.064	1.257	ug/L
>	In	115	259459.397	259459.40				ug/L
	Sn	118	17849.100	0.07	5.9063	0.068	1.157	ug/L
	Sb	123	15088.876	0.06	5.3428	0.053	1.000	ug/L
	Ba	135	26997.936	0.07	24.7607	0.273	1.104	ug/L
	Ce	140	843.461	0.00				ug/L
>	Tb	159	369130.936	369130.94				ug/L
	Ho	165	26.669	0.00				ug/L
	Tl	203	22956.808	0.08	4.8512	0.049	1.005	ug/L
	Tl	205	56583.800	0.19	4.8490	0.019	0.402	ug/L
	Pb	206	22612.535	0.08	5.8629	0.009	0.148	ug/L
	Pb	207	20061.673	0.07	5.5613	0.130	2.344	ug/L
	Pb	208	92638.747	0.31	5.7246	0.087	1.515	ug/L
	U	238	120079.042	0.40	5.1933	0.052	0.996	ug/L
>	Bi	209	298195.847	298195.85				ug/L

Sample ID: L1201080805S WG388449-06
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Na	23	104189768.589	796.24	36.3109	1.133	3.121	mg/L
Mg	24	3235410.767	24.74	1.7874	0.047	2.641	mg/L
K	39	3323957.143	21.93	0.6931	0.029	4.197	mg/L
Ca	43	41741.809	0.32	4.5688	0.077	1.679	mg/L
Fe	54	61184.694	0.26	0.0906	0.008	8.694	mg/L
Fe	57	24862.859	0.14	0.1074	0.009	8.025	mg/L
Sc-1	45	130853.603	130853.60				mg/L
Cl	35	137054.397	114572.11				mg/L
Kr	83	54.667	7.33				mg/L
Br	81	15722.161	9551.87				mg/L
P	31	56255.366	48316.19				mg/L
S	34	164466.358	24414.70				mg/L
Sr	88	206300.011	206243.34				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		92.256			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		88.269			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		90.727			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		92.004			

Sample ID: L1201080805S WG388449-06
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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: L1201080805S WG388449-06
Report Date/Time: Wednesday, February 01, 2012 21:37:16
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Method 6020 - Summary Report

Sample ID: L1201080901

Sample Date/Time: Wednesday, February 01, 2012 21:42:51
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	8087.296	-0.01				ug/L
	Be	9	6.000	-0.00	-0.0966	0.022	22.857	ug/L
	Al	27	42163.184	0.27	11.2411	3.901	34.703	ug/L
>	Sc	45	148070.978	148070.98				ug/L
	Ti	49	343.377	0.00	0.6936	0.774	111.560	ug/L
	V	51	5417.005	0.01	0.5884	0.066	11.188	ug/L
	Cr	52	18306.618	0.04	2.3780	0.172	7.218	ug/L
	Cr	53	1103.518	0.00	0.7810	0.232	29.730	ug/L
	Mn	55	17142.800	0.05	2.0100	0.041	2.029	ug/L
	Co	59	444.683	0.00	0.0298	0.007	24.826	ug/L
	Ni	60	1529.156	0.00	1.0998	0.022	1.965	ug/L
	Cu	65	1516.820	0.00	1.0917	0.008	0.709	ug/L
	Zn	66	967.399	0.00	1.1273	0.070	6.183	ug/L
>	Ge	72	310441.256	310441.26				ug/L
	As	75	295.967	0.00	0.5285	0.083	15.621	ug/L
	Se	77	104.667	0.00	0.7202	0.406	56.436	ug/L
	Se	82	27.763	0.00	0.4023	0.234	58.220	ug/L
	Rb	85	2046.605	0.01				mg/L
	Y	89	211768.008	-2026.38				ug/L
	Rh	103	29.667	16.00				ug/L
	Mo	98	2717.704	0.01	1.3556	0.052	3.857	ug/L
	Ag	107	51.334	0.00	-0.0342	0.000	1.033	ug/L
	Cd	114	14.222	0.00	-0.0153	0.000	1.953	ug/L
>	In	115	276201.479	276201.48				ug/L
	Sn	118	324.540	0.00	0.0239	0.003	10.707	ug/L
	Sb	123	35181.087	0.13	11.7260	0.187	1.596	ug/L
	Ba	135	34510.011	0.09	29.0008	0.675	2.328	ug/L
	Ce	140	203.356	0.00				ug/L
>	Tb	159	402995.834	402995.83				ug/L
	Ho	165	26.669	0.00				ug/L
	Tl	203	64.001	0.00	0.0056	0.001	11.506	ug/L
	Tl	205	143.349	0.00	0.0138	0.003	22.990	ug/L
	Pb	206	872.054	0.00	0.1653	0.007	4.239	ug/L
	Pb	207	759.709	0.00	0.1492	0.017	11.405	ug/L
	Pb	208	3518.996	0.01	0.1574	0.002	1.540	ug/L
	U	238	10192.331	0.03	0.3993	0.005	1.283	ug/L
>	Bi	209	307592.122	307592.12				ug/L

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⌈	Na	23	128143260.053	865.60	39.4741	1.104	2.796	mg/L
|	Mg	24	24879620.519	168.10	12.1734	0.555	4.559	mg/L
|	K	39	7456299.096	46.89	1.4904	0.057	3.830	mg/L
|	Ca	43	228527.749	1.54	22.2174	0.878	3.951	mg/L
|	Fe	54	60458.779	0.20	0.0687	0.011	16.456	mg/L
|	Fe	57	20460.744	0.09	0.0656	0.015	23.192	mg/L
⌊>	Sc-1	45	148070.978	148070.98				mg/L
	Cl	35	201351.455	178869.17				mg/L
	Kr	83	65.668	18.33				mg/L
	Br	81	13039.538	6869.25				mg/L
	P	31	16461.682	8522.50				mg/L
	S	34	208827.569	68775.91				mg/L
	Sr	88	634184.349	634127.68				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		96.063			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		93.965			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		99.050			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		94.903			

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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: L1201080901
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Method 6020 - Summary Report

Sample ID: L1201082114

Sample Date/Time: Wednesday, February 01, 2012 21:50:37
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 51
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	8821.345	-0.00				ug/L
	Be	9	13.333	0.00	-0.0619	0.008	13.534	ug/L
	Al	27	235444.298	1.66	68.0992	20.268	29.762	ug/L
>	Sc	45	140917.504	140917.50				ug/L
	Ti	49	473.395	0.00	1.0794	0.361	33.398	ug/L
	V	51	2737.911	0.00	0.1532	0.015	9.916	ug/L
	Cr	52	7308.278	0.01	0.3228	0.024	7.469	ug/L
	Cr	53	540.072	0.00	-0.0855	0.165	193.408	ug/L
	Mn	55	40296.262	0.13	4.8606	0.066	1.363	ug/L
	Co	59	545.357	0.00	0.0470	0.006	12.532	ug/L
	Ni	60	463.684	0.00	0.3007	0.019	6.247	ug/L
	Cu	65	319.676	0.00	0.1518	0.013	8.492	ug/L
	Zn	66	1534.490	0.00	1.9139	0.094	4.910	ug/L
>	Ge	72	305434.124	305434.12				ug/L
	As	75	-96.817	0.00	0.0529	0.030	57.021	ug/L
	Se	77	59.334	0.00	-0.0011	0.173	15253.591	ug/L
	Se	82	1.238	-0.00	0.0564	0.159	281.852	ug/L
	Rb	85	1671.184	0.01				mg/L
	Y	89	207503.384	-6291.01				ug/L
	Rh	103	9.333	-4.33				ug/L
	Mo	98	39.749	0.00	-0.0164	0.004	24.433	ug/L
	Ag	107	56.001	0.00	-0.0332	0.002	6.496	ug/L
	Cd	114	2.700	0.00	-0.0279	0.011	37.830	ug/L
>	In	115	279482.607	279482.61				ug/L
	Sn	118	287.072	0.00	0.0110	0.000	1.857	ug/L
	Sb	123	87.202	0.00	0.0095	0.005	53.107	ug/L
	Ba	135	4601.317	0.01	3.8971	0.067	1.709	ug/L
	Ce	140	3584.465	0.01				ug/L
>	Tb	159	394858.108	394858.11				ug/L
	Ho	165	63.340	0.00				ug/L
	Tl	203	33.000	0.00	-0.0009	0.002	184.075	ug/L
	Tl	205	56.673	0.00	0.0065	0.001	15.062	ug/L
	Pb	206	453.017	0.00	0.0567	0.009	15.863	ug/L
	Pb	207	389.346	0.00	0.0464	0.006	13.495	ug/L
	Pb	208	1785.093	0.00	0.0503	0.005	10.644	ug/L
	U	238	174.337	0.00	-0.0235	0.001	5.362	ug/L
>	Bi	209	314166.276	314166.28				ug/L

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Na	23	2100113.358	14.80	0.6730	0.031	4.596	mg/L
Mg	24	717657.978	5.10	0.3646	0.018	4.828	mg/L
K	39	1132713.707	4.56	0.1379	0.009	6.409	mg/L
Ca	43	7117.085	0.05	0.6999	0.025	3.598	mg/L
Fe	54	97867.204	0.48	0.1747	0.015	8.844	mg/L
Fe	57	25548.322	0.13	0.1005	0.008	7.649	mg/L
Sc-1	45	140917.504	140917.50				mg/L
Cl	35	26300.774	3818.49				mg/L
Kr	83	49.334	2.00				mg/L
Br	81	7844.358	1674.07				mg/L
P	31	15141.768	7202.59				mg/L
S	34	133716.403	-6335.26				mg/L
Sr	88	44301.977	44245.30				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					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		94.513			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.081			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		97.050			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		96.932			

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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: L1201082114
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Approved: February 02, 2012

Method 6020 - Summary Report

Sample ID: L1201082117

Sample Date/Time: Wednesday, February 01, 2012 21:58:24
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	8470.974	-0.01				ug/L
	Be	9	2.667	-0.00	-0.1104	0.014	12.280	ug/L
	Al	27	118451.311	0.80	33.0597	8.670	26.225	ug/L
>	Sc	45	144036.138	144036.14				ug/L
	Ti	49	293.368	0.00	0.5350	0.129	24.190	ug/L
	V	51	2413.625	0.00	0.0943	0.017	18.487	ug/L
	Cr	52	8514.100	0.01	0.5354	0.015	2.779	ug/L
	Cr	53	673.428	0.00	0.1150	0.036	31.667	ug/L
	Mn	55	38966.287	0.13	4.6454	0.112	2.409	ug/L
	Co	59	406.347	0.00	0.0242	0.001	5.279	ug/L
	Ni	60	493.353	0.00	0.3194	0.012	3.713	ug/L
	Cu	65	237.339	0.00	0.0836	0.022	26.025	ug/L
	Zn	66	668.367	0.00	0.7360	0.026	3.563	ug/L
>	Ge	72	308956.685	308956.69				ug/L
	As	75	-101.212	0.00	0.0488	0.091	186.920	ug/L
	Se	77	56.000	-0.00	-0.0653	0.237	363.473	ug/L
	Se	82	11.302	0.00	0.1877	0.163	86.595	ug/L
	Rb	85	1113.752	0.00				mg/L
	Y	89	206730.673	-7063.72				ug/L
	Rh	103	11.333	-2.33				ug/L
	Mo	98	43.562	0.00	-0.0143	0.001	10.211	ug/L
	Ag	107	55.001	0.00	-0.0333	0.003	8.194	ug/L
	Cd	114	-1.810	-0.00	-0.0329	0.003	9.387	ug/L
>	In	115	276197.883	276197.88				ug/L
	Sn	118	261.204	0.00	0.0040	0.004	92.509	ug/L
	Sb	123	76.577	0.00	0.0062	0.001	22.942	ug/L
	Ba	135	4885.481	0.01	4.0596	0.065	1.610	ug/L
	Ce	140	1630.325	0.00				ug/L
>	Tb	159	402788.973	402788.97				ug/L
	Ho	165	53.339	0.00				ug/L
	Tl	203	32.667	0.00	-0.0010	0.001	139.307	ug/L
	Tl	205	53.339	0.00	0.0062	0.003	53.751	ug/L
	Pb	206	318.343	0.00	0.0229	0.004	18.144	ug/L
	Pb	207	264.340	0.00	0.0130	0.004	31.417	ug/L
	Pb	208	1236.382	0.00	0.0176	0.002	10.768	ug/L
	U	238	117.669	0.00	-0.0258	0.001	4.829	ug/L
>	Bi	209	315034.508	315034.51				ug/L

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Na	23	2570417.632	17.74	0.8072	0.039	4.827	mg/L
Mg	24	810510.808	5.63	0.4030	0.013	3.321	mg/L
K	39	1174904.492	4.68	0.1416	0.007	5.132	mg/L
Ca	43	7954.595	0.05	0.7674	0.026	3.385	mg/L
Fe	54	79753.146	0.34	0.1225	0.011	8.875	mg/L
Fe	57	18492.345	0.08	0.0578	0.006	10.112	mg/L
Sc-1	45	144036.138	144036.14				mg/L
Cl	35	26776.286	4294.00				mg/L
Kr	83	42.001	-5.33				mg/L
Br	81	8345.514	2175.23				mg/L
P	31	14206.844	6267.66				mg/L
S	34	137367.117	-2684.54				mg/L
Sr	88	53660.946	53604.27				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		95.603			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		93.964			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.999			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		97.200			

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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: L1201082117
Report Date/Time: Wednesday, February 01, 2012 22:00:36
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Method 6020 - Summary Report

Sample ID: L1201082120

Sample Date/Time: Wednesday, February 01, 2012 22:06:11
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	9238.472	-0.00				ug/L
	Be	9	4.000	-0.00	-0.1031	0.019	18.777	ug/L
	Al	27	6686.025	0.03	1.4585	0.044	3.039	ug/L
>	Sc	45	140630.217	140630.22				ug/L
	Ti	49	56.673	0.00	-0.1603	0.073	45.386	ug/L
	V	51	1935.878	0.00	0.0122	0.017	141.531	ug/L
	Cr	52	7289.927	0.01	0.2915	0.042	14.338	ug/L
	Cr	53	473.394	-0.00	-0.2062	0.098	47.640	ug/L
	Mn	55	815.715	0.00	0.0548	0.007	12.027	ug/L
	Co	59	48.001	-0.00	-0.0320	0.001	3.386	ug/L
	Ni	60	160.003	0.00	0.0653	0.015	23.227	ug/L
	Cu	65	171.337	0.00	0.0301	0.008	25.862	ug/L
	Zn	66	640.698	0.00	0.6920	0.074	10.682	ug/L
>	Ge	72	311798.876	311798.88				ug/L
	As	75	-128.466	0.00	0.0166	0.023	136.417	ug/L
	Se	77	64.667	0.00	0.0605	0.199	328.314	ug/L
	Se	82	6.928	0.00	0.1290	0.041	32.048	ug/L
	Rb	85	31.334	0.00				mg/L
	Y	89	209396.882	-4397.51				ug/L
	Rh	103	7.333	-6.33				ug/L
	Mo	98	24.598	-0.00	-0.0243	0.001	5.172	ug/L
	Ag	107	51.334	-0.00	-0.0344	0.001	2.876	ug/L
	Cd	114	6.944	0.00	-0.0234	0.003	13.565	ug/L
>	In	115	280548.640	280548.64				ug/L
	Sn	118	310.939	0.00	0.0181	0.006	32.173	ug/L
	Sb	123	50.495	0.00	-0.0028	0.003	100.987	ug/L
	Ba	135	88.335	0.00	0.0189	0.007	34.598	ug/L
	Ce	140	40.004	0.00				ug/L
>	Tb	159	400736.746	400736.75				ug/L
	Ho	165	13.335	0.00				ug/L
	Tl	203	29.334	0.00	-0.0018	0.001	30.066	ug/L
	Tl	205	53.339	0.00	0.0061	0.002	32.957	ug/L
	Pb	206	215.338	0.00	-0.0041	0.001	24.147	ug/L
	Pb	207	179.337	0.00	-0.0108	0.010	89.634	ug/L
	Pb	208	845.359	0.00	-0.0070	0.001	19.630	ug/L
	U	238	28.000	-0.00	-0.0295	0.001	1.829	ug/L
>	Bi	209	324729.826	324729.83				ug/L

Sample ID: L1201082120
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Na	23	48328.045	0.21	0.0080	0.000	6.282	mg/L
Mg	24	9860.168	0.07	0.0001	0.000	474.143	mg/L
K	39	418624.336	-0.51	-0.0239	0.005	22.035	mg/L
Ca	43	306.703	0.00	0.0030	0.005	165.268	mg/L
Fe	54	53683.315	0.17	0.0593	0.012	19.390	mg/L
Fe	57	6513.199	-0.01	-0.0083	0.001	11.974	mg/L
Sc-1	45	140630.217	140630.22				mg/L
Cl	35	22192.860	-289.43				mg/L
Kr	83	46.667	-0.67				mg/L
Br	81	9504.090	3333.80				mg/L
P	31	15925.891	7986.71				mg/L
S	34	135319.411	-4732.25				mg/L
Sr	88	590.080	533.41				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		96.483			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		95.444			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		98.495			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		100.191			

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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: L1201082120
Report Date/Time: Wednesday, February 01, 2012 22:08:23
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Method 6020 - Summary Report

Sample ID: L1201082123

Sample Date/Time: Wednesday, February 01, 2012 22:13:58
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	8621.136	-0.00				ug/L
	Be	9	3.333	-0.00	-0.1067	0.014	13.530	ug/L
	Al	27	7553.435	0.04	1.7772	0.186	10.451	ug/L
>	Sc	45	136799.907	136799.91				ug/L
	Ti	49	66.674	0.00	-0.1284	0.045	35.134	ug/L
	V	51	1983.185	0.00	0.0241	0.007	29.143	ug/L
	Cr	52	7082.081	0.00	0.2684	0.034	12.554	ug/L
	Cr	53	526.737	0.00	-0.1154	0.231	200.116	ug/L
	Mn	55	2102.953	0.01	0.2113	0.006	2.758	ug/L
	Co	59	62.334	0.00	-0.0296	0.001	2.558	ug/L
	Ni	60	672.367	0.00	0.4571	0.017	3.616	ug/L
	Cu	65	747.374	0.00	0.4898	0.015	3.006	ug/L
	Zn	66	826.716	0.00	0.9504	0.010	1.075	ug/L
>	Ge	72	307900.401	307900.40				ug/L
	As	75	-103.019	0.00	0.0462	0.034	73.224	ug/L
	Se	77	68.000	0.00	0.1320	0.091	68.900	ug/L
	Se	82	9.586	0.00	0.1646	0.103	62.347	ug/L
	Rb	85	37.334	0.00				mg/L
	Y	89	209375.063	-4419.33				ug/L
	Rh	103	12.667	-1.00				ug/L
	Mo	98	31.050	0.00	-0.0208	0.002	10.456	ug/L
	Ag	107	49.334	-0.00	-0.0347	0.003	7.799	ug/L
	Cd	114	1.043	-0.00	-0.0298	0.002	5.627	ug/L
>	In	115	276094.562	276094.56				ug/L
	Sn	118	241.203	0.00	-0.0024	0.002	70.607	ug/L
	Sb	123	51.702	0.00	-0.0021	0.002	92.084	ug/L
	Ba	135	80.001	0.00	0.0129	0.015	116.809	ug/L
	Ce	140	53.339	0.00				ug/L
>	Tb	159	395394.069	395394.07				ug/L
	Ho	165	16.668	0.00				ug/L
	Tl	203	22.000	-0.00	-0.0031	0.001	39.034	ug/L
	Tl	205	63.340	0.00	0.0071	0.002	32.257	ug/L
	Pb	206	276.007	0.00	0.0127	0.003	24.283	ug/L
	Pb	207	253.006	0.00	0.0103	0.006	61.235	ug/L
	Pb	208	1110.040	0.00	0.0102	0.001	13.565	ug/L
	U	238	80.335	0.00	-0.0274	0.004	14.454	ug/L
>	Bi	209	314625.909	314625.91				ug/L

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Na	23	46306.420	0.21	0.0077	0.000	4.890	mg/L
Mg	24	8318.348	0.06	-0.0006	0.000	72.047	mg/L
K	39	425278.091	-0.37	-0.0197	0.005	24.420	mg/L
Ca	43	300.036	0.00	0.0031	0.007	215.132	mg/L
Fe	54	60832.511	0.23	0.0821	0.004	4.346	mg/L
Fe	57	10207.272	0.02	0.0145	0.002	12.422	mg/L
Sc-1	45	136799.907	136799.91				mg/L
Cl	35	24105.517	1623.23				mg/L
Kr	83	47.667	0.33				mg/L
Br	81	8524.359	2354.07				mg/L
P	31	13993.753	6054.57				mg/L
S	34	132913.971	-7137.69				mg/L
Sr	88	476.728	420.06				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		95.277			
As	75					
Se	77					
Se	82					
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107					
Cd	114					
In	115		93.929			
Sn	118					
Sb	123					
Ba	135					
Ce	140					
Tb	159		97.182			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
U	238					
Bi	209		97.074			

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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: L1201082123
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 01, 2012 22:21:46
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	8954.826	0.00				ug/L
	Be	9	10539.329	0.08	50.7660	0.795	1.566	ug/L
	Al	27	164796.871	1.25	51.1729	0.765	1.496	ug/L
>	Sc	45	130869.809	130869.81				ug/L
	Ti	49	35716.639	0.12	104.6738	3.067	2.930	ug/L
	V	51	307216.633	0.99	50.8031	1.593	3.136	ug/L
	Cr	52	272645.630	0.87	50.8429	1.530	3.009	ug/L
	Cr	53	31763.620	0.10	49.4637	1.323	2.675	ug/L
	Mn	55	419783.371	1.36	50.6852	0.834	1.645	ug/L
	Co	59	325087.454	1.06	51.1562	0.419	0.818	ug/L
	Ni	60	66614.913	0.22	50.7631	0.803	1.581	ug/L
	Cu	65	64483.556	0.21	51.2180	1.227	2.396	ug/L
	Zn	66	38327.991	0.12	51.1509	0.688	1.345	ug/L
>	Ge	72	307538.874	307538.87				ug/L
	As	75	40796.826	0.13	49.8524	0.667	1.338	ug/L
	Se	77	3258.637	0.01	52.2837	0.850	1.627	ug/L
	Se	82	3850.809	0.01	50.4171	1.585	3.144	ug/L
	Rb	85	1503.151	0.00				mg/L
	Y	89	200510.151	-13284.24				ug/L
	Rh	103	37.667	24.00				ug/L
	Mo	98	198370.203	0.72	101.2915	2.117	2.090	ug/L
	Ag	107	202848.259	0.73	50.9825	0.702	1.378	ug/L
	Cd	114	46197.822	0.17	50.4843	2.255	4.466	ug/L
>	In	115	277146.140	277146.14				ug/L
	Sn	118	161550.312	0.58	50.6353	0.476	0.940	ug/L
	Sb	123	150825.407	0.54	50.1557	0.328	0.654	ug/L
	Ba	135	57475.820	0.15	50.4942	0.299	0.592	ug/L
	Ce	140	113.345	0.00				ug/L
>	Tb	159	385765.269	385765.27				ug/L
	Ho	165	20.002	0.00				ug/L
	Tl	203	240156.321	0.76	48.1649	2.007	4.168	ug/L
	Tl	205	599431.383	1.91	48.6863	2.623	5.387	ug/L
	Pb	206	198399.025	0.63	49.1568	1.683	3.423	ug/L
	Pb	207	186891.596	0.59	49.5198	0.526	1.061	ug/L
	Pb	208	835811.857	2.65	49.3309	0.667	1.352	ug/L
	U	238	1295815.063	4.12	53.3825	1.537	2.880	ug/L
>	Bi	209	314882.573	314882.57				ug/L

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Na	23	14056381.541	107.28	4.8909	0.039	0.791	mg/L
Mg	24	9237172.447	70.58	5.1088	0.117	2.290	mg/L
K	39	21999465.723	164.65	5.2534	0.230	4.378	mg/L
Ca	43	46832.659	0.36	5.1272	0.164	3.190	mg/L
Fe	54	1829479.823	13.77	5.0699	0.017	0.327	mg/L
Fe	57	868803.543	6.59	5.2912	0.171	3.225	mg/L
Sc-1	45	130869.809	130869.81				mg/L
Cl	35	19470.052	-3012.23				mg/L
Kr	83	55.001	7.67				mg/L
Br	81	6370.435	200.15				mg/L
P	31	8154.664	215.48				mg/L
S	34	136079.361	-3972.30				mg/L
Sr	88	3224.280	3167.61				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	101.606				
Cr	52	101.686				
Cr	53					
Mn	55	101.370				
Co	59	102.312				
Ni	60	101.526				
Cu	65	102.436				
Zn	66	102.302				
Ge	72		95.165			
As	75	99.705				
Se	77					
Se	82	100.834				
Rb	85					
Y	89					
Rh	103					
Mo	98					
Ag	107	101.965				
Cd	114	100.969				
In	115		94.286			
Sn	118					
Sb	123	100.311				
Ba	135	100.988				
Ce	140					
Tb	159		94.815			
Ho	165					
Tl	203	96.330				
Tl	205					
Pb	206					
Pb	207					
Pb	208	98.662				
U	238	106.765				
Bi	209		97.153			

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: Wednesday, February 01, 2012 22:23:59
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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 01, 2012 22:29:23
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	7803.662	-0.01				ug/L
	Be	9	15.333	0.00	-0.0459	0.024	51.411	ug/L
	Al	27	1583.489	-0.00	0.0183	0.128	700.965	ug/L
>	Sc	45	127789.217	127789.22				ug/L
	Ti	49	33.337	-0.00	-0.2227	0.015	6.760	ug/L
	V	51	1829.412	0.00	0.0108	0.006	55.782	ug/L
	Cr	52	5753.376	0.00	0.0604	0.032	52.330	ug/L
	Cr	53	366.712	-0.00	-0.3449	0.113	32.696	ug/L
	Mn	55	299.675	0.00	-0.0049	0.003	64.144	ug/L
	Co	59	107.002	0.00	-0.0219	0.004	18.284	ug/L
	Ni	60	37.000	0.00	-0.0260	0.005	20.816	ug/L
	Cu	65	105.002	0.00	-0.0173	0.010	60.346	ug/L
	Zn	66	86.335	0.00	-0.0348	0.007	19.484	ug/L
>	Ge	72	295987.719	295987.72				ug/L
	As	75	-155.414	-0.00	-0.0257	0.033	130.236	ug/L
	Se	77	59.334	0.00	0.0308	0.185	601.221	ug/L
	Se	82	-2.478	-0.00	0.0063	0.088	1389.592	ug/L
	Rb	85	25.667	-0.00				mg/L
	Y	89	196243.672	-17550.72				ug/L
	Rh	103	14.000	0.33				ug/L
	Mo	98	95.568	0.00	0.0141	0.003	19.803	ug/L
	Ag	107	89.001	0.00	-0.0238	0.005	19.027	ug/L
	Cd	114	6.217	0.00	-0.0239	0.006	24.892	ug/L
>	In	115	266371.086	266371.09				ug/L
	Sn	118	261.871	0.00	0.0072	0.003	43.606	ug/L
	Sb	123	45.616	0.00	-0.0036	0.006	162.016	ug/L
	Ba	135	42.001	0.00	-0.0184	0.004	22.879	ug/L
	Ce	140	43.338	0.00				ug/L
>	Tb	159	379153.912	379153.91				ug/L
	Ho	165	6.667	0.00				ug/L
	Tl	203	68.334	0.00	0.0068	0.003	44.497	ug/L
	Tl	205	160.018	0.00	0.0154	0.004	25.679	ug/L
	Pb	206	219.005	0.00	0.0008	0.005	585.193	ug/L
	Pb	207	193.004	0.00	-0.0036	0.003	95.661	ug/L
	Pb	208	888.361	0.00	-0.0006	0.002	355.747	ug/L
	U	238	228.006	0.00	-0.0208	0.003	14.460	ug/L
>	Bi	209	301709.105	301709.10				ug/L

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⌈	Na	23	18155.028	0.01	-0.0013	0.001	43.759	mg/L
|	Mg	24	1623.666	0.01	-0.0041	0.000	7.355	mg/L
|	K	39	434421.790	-0.09	-0.0106	0.002	18.590	mg/L
|	Ca	43	170.019	-0.00	-0.0093	0.007	76.636	mg/L
|	Fe	54	28098.312	0.01	-0.0008	0.005	578.568	mg/L
|	Fe	57	6032.789	-0.01	-0.0076	0.002	32.537	mg/L
⌊>	Sc-1	45	127789.217	127789.22				mg/L
	Cl	35	18507.202	-3975.09				mg/L
	Kr	83	55.001	7.67				mg/L
	Br	81	6043.525	-126.76				mg/L
	P	31	8199.370	260.19				mg/L
	S	34	127351.927	-12699.73				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		91.590			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Rb	85					
	Y	89					
	Rh	103					
⌈	Mo	98					
|	Ag	107					
|	Cd	114					
|>	In	115		90.621			
|	Sn	118					
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
⌊>	Tb	159		93.190			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	U	238					
⌊>	Bi	209		93.088			

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: Wednesday, February 01, 2012 22:31:35
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2.1.3 Metals CVAA Data (Mercury)

2.1.3.1 Summary Data

Login Number: L12010798
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: WG389023 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 41686
Approved By: Sheri Pfalzgraf

Microbac

Lab Report #:	L12010798
Lab Project #:	3005.011
Project Name:	White Sands MR
Lab Contact:	Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL22-0112-1	**Prep Method:**	7470A	**Prep Date:**	02/07/2012 09:31
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/08/2012 08:28
Workgroup #:	WG389023	**Analyst:**	PDM	**Run Date:**	02/08/2012 08:54
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	HY.020812.085448
Sample Tag:	02	**Units:**	mg/L		

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

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL22-0112-1	**Prep Method:**	7470A	**Prep Date:**	02/02/2012 12:44
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/03/2012 08:58
Workgroup #:	WG388619	**Analyst:**	PDM	**Run Date:**	02/03/2012 09:35
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	HY.020312.093536
Sample Tag:	01	**Units:**	mg/L		

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

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	HYDRA
Client ID:	MPL22-0112-1	**Prep Method:**	7470A	**Prep Date:**	02/07/2012 09:31
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	02/08/2012 11:40
Workgroup #:	WG389023	**Analyst:**	PDM	**Run Date:**	02/08/2012 12:05
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	HY.020812.120502
Sample Tag:	03	**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

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): RWC
Date: 02-06-12
Filter Lot #: 4614781
Microbac SOP: TCLP01 Rev #: 09

Analyst / Date		Analyst / Date	
RWC 020612		RWC 020712	
Time On	Temp On °C	Time Off	Temp Off °C
1430	23	0700	23

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
D	02-0064-01	ME	1311	F2-286	S	100	14	13	25.04	500	13
|	02-0067-01	|	|	F1-854	|	1	9	2	100.07	2000	5
|	02-0079-02	|	|	|	|	46	10	4.01	60.32	1206	7
1	02-0080-02	(SPK)	|	|	|	100	7	2	100.01	2000	5
G-8	020081-01	SV	|	|	|	|	9	2	100.03	|	5
D	02-0082-02	1	|	|	1	|	8	4.11	100.02	|	7
G-15	02-0085-01	(SV SPK)	|	|	S/S	|	8	2	100.02	|	7
G20	02-0135-06	ME | PEST HERB	|	|	1	1	8	3	100.02	|	7
N/A	FBLK(1)	| 1 1 1	|	1	N/A	N/A	N/A	N/A	N/A	|	N/A
1	FBLK(2)	1	1	F2-286	1	1	1	1	1	1	1

RWC 020612

*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:

Peer Review By:

Microbac Laboratories Inc.
Metals Digest Log

Workgroup: WG388937
Analyst: REK
Spike Analyst: REK
Method: 7470A
Run Date: 02/07/2012 09:31
Hotblock Start Temp: 95.7 @ 08:55
Hotblock End Temp: 94.8 @ 10:55

SOP: ME404 Revison 13
Spike Solution: STD49955
Spike Witness: VC
H2SO4 Lot #: COA15776
HNO3 Lot #: COA15925
Digestion Tubes Lot #: COA15940
KMnO4 1:1 Lot #: RGT16964
K2S2O8 1:1 Lot #: RGT16987
Mercury Water ICV Lot #: STD49957
HG H2O STDS 10PPM Lot #: STD49963

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Spike Amount	Due Date
1	WG388937-02	BLANK	1	40 mL	40 mL		
2	WG388895-01	FBLK1	17	4 mL	40 mL		
3	WG388895-02	FBLK2	17	4 mL	40 mL		
4	WG388937-03	LCS	1	40 mL	40 mL	4 mL	
5	L12010798-01	SAMP	1	40 mL	40 mL		02/10/12
6	L12020064-01	SAMP	17	4 mL	40 mL		02/09/12
7	L12020067-01	SAMP	17	4 mL	40 mL		02/09/12
8	L12020079-02	SAMP	17	4 mL	40 mL		02/08/12
9	L12020081-01	SAMP	17	4 mL	40 mL		02/13/12
10	L12020082-02	SAMP	17	4 mL	40 mL		02/09/12
11	WG388937-01	REF	1	40 mL	40 mL		
12	L12020091-01	SAMP	1	40 mL	40 mL		02/14/12
13	L12020135-06	SAMP	17	4 mL	40 mL		02/14/12
14	L12020146-01	SAMP	1	40 mL	40 mL		02/17/12
15	WG388937-04	MS	1	36 mL	40 mL	4 mL	
16	WG388937-05	MSD	1	36 mL	40 mL	4 mL	

Analyst: [signature]

Reviewer: [signature]

HB_DIG - Modified 09/30/2009
PDF ID: 2300438
Report generated: 02/07/2012 11:49

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HYDRA
Dataset: 020812B.PRN
Analyst1: PDM
Analyst2: N/A
Method: 7470
SOP: ME404
Rev: 13
Maintenance Log ID: 40556

Calibration Std: STD49963
ICV Std: STD49957
Post Spike: STD49963
ICSA: N/A
ICSAB: N/A
Int. Std:
CCV:
LLCCV:

Workgroups: 389023

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	HY.020812.112925	WG389074-01	Calibration Point		1		02/08/12 11:29
2	HY.020812.113149	WG389074-02	Calibration Point		1		02/08/12 11:31
3	HY.020812.113433	WG389074-03	Calibration Point		1		02/08/12 11:34
4	HY.020812.113636	WG389074-04	Calibration Point		1		02/08/12 11:36
5	HY.020812.113818	WG389074-05	Calibration Point		1		02/08/12 11:38
6	HY.020812.114002	WG389074-06	Calibration Point		1		02/08/12 11:40
7	HY.020812.114448	WG389074-07	Initial Calibration Verification		1		02/08/12 11:44
8	HY.020812.114630	WG389074-08	Initial Calib Blank		1		02/08/12 11:46
9	HY.020812.114825	WG389074-09	CCV		1		02/08/12 11:48
10	HY.020812.115009	WG389074-10	CCB		1		02/08/12 11:50
11	HY.020812.115753	WG388937-02	Method/Prep Blank	40/40	1		02/08/12 11:57
12	HY.020812.115946	WG388937-03	Laboratory Control S	40/40	1		02/08/12 11:59
13	HY.020812.120128	WG388895-01	TCLP Fluid Blank 1		1		02/08/12 12:01
14	HY.020812.120321	WG388895-02	TCLP Fluid Blank 2		1		02/08/12 12:03
15	HY.020812.120502	L12010798-01	MPL22-0112-1	40/40	1		02/08/12 12:05
16	HY.020812.120644	WG389023-01	Post Digestion Spike		1	L12010798-01	02/08/12 12:06
17	HY.020812.120826	L12020064-01	NOVELIS BLUE	4/40	1		02/08/12 12:08
18	HY.020812.121008	WG389023-02	Post Digestion Spike		1	L12020064-01	02/08/12 12:10
19	HY.020812.121212	L12020067-01	PRECISION RIG 823	4/40	1		02/08/12 12:12
20	HY.020812.121405	L12020079-02	GRENADIER	4/40	1		02/08/12 12:14
21	HY.020812.121548	WG389074-11	CCV		1		02/08/12 12:15
22	HY.020812.121730	WG389074-12	CCB		1		02/08/12 12:17
23	HY.020812.121917	L12020081-01	SANDBLAST WASTE DRUM	4/40	1		02/08/12 12:19
24	HY.020812.122110	L12020082-02	HALL DRILLING	4/40	1		02/08/12 12:21
25	HY.020812.122254	WG388937-01	Reference Sample	40/40	1	L12020091-01	02/08/12 12:22
26	HY.020812.122438	WG388937-04	Matrix Spike	36/40	1	L12020091-01	02/08/12 12:24
27	HY.020812.122622	WG388937-05	Matrix Spike Duplica	36/40	1	L12020091-01	02/08/12 12:26
28	HY.020812.122819	L12020135-06	1109-116D-001	4/40	1		02/08/12 12:28
29	HY.020812.123052	L12020146-01	MPL24-0212-1	40/40	1		02/08/12 12:30
30	HY.020812.123255	WG389074-13	CCV		1		02/08/12 12:32
31	HY.020812.123439	WG389074-14	CCB		1		02/08/12 12:34

Page: 1 Approved: February 08, 2012

Maren Berry

Microbac Laboratories Inc.

Data Checklist

Date: 08-FEB-2012
Analyst: PDM
Analyst: NA
Method: 7470
Instrument: HYDRA
Curve Workgroup: 389074
Runlog ID: 45043
Analytical Workgroups: 389023

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	
Case Narrative	X
Client Forms	X
Level X	
Level 3	
Level 4	0798, 0091, 0135, 0146
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	KHR
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
08-FEB-2012

Secondary Reviewer:
08-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-08-2012 14:49:07

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 7470A

AAB#: WG389023

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12					02/07/12	7.9	28		02/08/12	9	28	
MPL22-0112-1	01	01/30/12					02/07/12	7.9	28		02/08/12	8.9	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2301820
Report generated 02/08/2012 13:24

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
Blank File ID: HY.020812.115753
Prep Date: 02/07/12 09:31
Analyzed Date: 02/08/12 11:57
Analyst: PDM

Work Group: WG389023
Blank Sample ID: WG388937-02
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	WG388937-03	HY.020812.084932	02/08/12 08:49	01
MPL22-0112-1	L12010798-01	HY.020812.085448	02/08/12 08:54	02
LCS	WG388937-03	HY.020812.115946	02/08/12 11:59	02
MPL22-0112-1	L12010798-01	HY.020812.120502	02/08/12 12:05	03

Report Name: BLANK_SUMMARY
PDF File ID: 2301821
Report generated 02/08/2012 13:24

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 Prep Date: 02/07/12 09:31 Sample ID: WG388937-02
Instrument ID: HYDRA Run Date: 02/08/12 11:57 Prep Method: 7470A
File ID: HY.020812.115753 Analyst: PDM Method: 7470A
Workgroup (AAB#): WG389023 Matrix: Water Units: mg/L
Contract #: Cal ID: HYDRA-08-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: 2301822
08-FEB-2012 13:24

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Run Date: 02/08/2012 Sample ID: WG388937-03
Instrument ID: HYDRA Run Time: 11:59 Prep Method: 7470A
File ID: HY.020812.115946 Analyst: PDM Method: 7470A
Workgroup (AAB#): WG389023 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD49955 Cal ID: HYDRA-08-FEB-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Mercury	0.00400	0.00428	107	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2301823
Report generated: 02/08/2012 13:24

Microbac Laboratories Inc.
MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L12010798 Cal ID: HYDRA- Worknum: WG389023
Instrument ID: HYDRA Contract #: Method: 7470A
Parent ID: WG388937-01 File ID: HY.020812.122254 Dil: 1 Matrix: WATER
Sample ID: WG388937-04 MS File ID: HY.020812.122438 Dil: 1 Units: mg/L
Sample ID: WG388937-05 MSD File ID: HY.020812.122622 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Mercury	ND	0.00444	0.00473	107	0.00444	0.00480	108	1.40	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

WG_MS_MSD_DRYWT - Modified 05/26/2011
PDF File ID: 2301824
Report generated 02/08/2012 13:24

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L12010798 **Worknum:** WG389023
Instrument ID: HYDRA **Method:** 7470A
Post Spike ID: WG389023-01 **File ID:** HY.020812.120644 **Dil:** 1 **Units:** ug/L
Sample ID: L12010798-01 **File ID:** HY.020812.120502 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
MERCURY	1.02		0	U	1	102.0	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: 2301819
Report generated: 02/08/2012 13:28

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L12010798
Analytical Method: 7470A
ICAL Worknum: WG389074

Workgroup (AAB#): WG389023
Instrument ID: HYDRA
Initial Calibration Date: 02/08/2012 11:40

Analyte	WG389074-01		WG389074-02		WG389074-03		WG389074-04		WG389074-05		WG389074-06	
	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT
Mercury	0	-83	0.200	378	1.00	3104	2.00	6146	5.00	15433	10.0	32503

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: 2301825
Report generated 02/08/2012 13:24

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L12010798
Analytical Method: 7470A
ICAL Worknum: WG389074

Workgroup (AAB#): WG389023
Instrument ID: HYDRA
Initial Calibration Date: 02/08/2012 11:40

Analyte	R	Q
Mercury	0.9995	

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: 2301825
Report generated 02/08/2012 13:24

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L12010798
Instrument ID: HYDRA
File ID: HY.020812.114630
Workgroup (AAB#): WG389023
Matrix: WATER

Run Date: 02/08/2012
Run Time: 11:46
Analyst: PDM
Cal ID: HYDRA - 08-FEB-12

Sample ID: WG389074-08
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: 2301827
Report generated 02/08/2012 13:24

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010798
Run Date: 02/08/2012
Sample ID: WG389074-10
Instrument ID: HYDRA
Run Time: 11:50
Method: 7470A
File ID: HY.020812.115009
Analyst: PDM
Units: ug/L
Workgroup (AAB#): WG389023
Cal ID: HYDRA - 08-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: 2301829
Report generated 02/08/2012 13:24

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010798
Run Date: 02/08/2012
Sample ID: WG389074-12
Instrument ID: HYDRA
Run Time: 12:17
Method: 7470A
File ID: HY.020812.121730
Analyst: PDM
Units: ug/L
Workgroup (AAB#): WG389023
Cal ID: HYDRA - 08-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: 2301829
Report generated 02/08/2012 13:24

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L12010798 Run Date: 02/08/2012 Sample ID: WG389074-07
Instrument ID: HYDRA Run Time: 11:44 Method: 7470A
File ID: HY.020812.114448 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG389023 Cal ID: HYDRA - 08-FEB-12
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Mercury		2	2.14	107	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2301826
Report generated 02/08/2012 13:24

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010798
Run Date: 02/08/2012
Sample ID: WG389074-09
Instrument ID: HYDRA
Run Time: 11:48
Method: 7470A
File ID: HY.020812.114825
Analyst: PDM
QC Key: DOD4
Workgroup (AAB#): WG389023
Cal ID: HYDRA - 08-FEB-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Mercury, Total		0.00200	0.00210	mg/L	105	80 - 120		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2301828
Report generated 02/08/2012 13:24

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010798
Run Date: 02/08/2012
Sample ID: WG389074-11
Instrument ID: HYDRA
Run Time: 12:15
Method: 7470A
File ID: HY.020812.121548
Analyst: PDM
QC Key: DOD4
Workgroup (AAB#): WG389023
Cal ID: HYDRA - 08-FEB-12
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Mercury, Total		0.00200	0.00205	mg/L	103	80 - 120		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2301828
Report generated 02/08/2012 13:24

2.1.3.3 Raw Data

Protocol: standard

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 1 Seq: 1 11:15:57 08 Feb 12 HG

Hg .000 ppb -65

*** Standard: 2 Rep: 1 Seq: 2 11:18:00 08 Feb 12 HG

Hg .200 ppb -8

*** Standard: 1 Rep: 1 Seq: 3 11:21:05 08 Feb 12 HG

Hg .000 ppb 385

*** Standard: 2 Rep: 1 Seq: 4 11:22:57 08 Feb 12 HG

Hg .200 ppb 563

*** Standard: 3 Rep: 1 Seq: 5 11:24:40 08 Feb 12 HG

Hg 1.00 ppb 2652

*** Standard: 1 Rep: 1 Seq: 6 11:29:25 08 Feb 12 HG

Hg .000 ppb -83

*** Standard: 2 Rep: 1 Seq: 7 11:31:49 08 Feb 12 HG

Hg .200 ppb 378

*** Standard: 3 Rep: 1 Seq: 8 11:34:33 08 Feb 12 HG

Hg 1.00 ppb 3104

*** Standard: 4 Rep: 1 Seq: 9 11:36:36 08 Feb 12 HG

Hg 2.00 ppb 6146

*** Standard: 5 Rep: 1 Seq: 10 11:38:18 08 Feb 12 HG

Hg 5.00 ppb 15433

*** Standard: 6 Rep: 1 Seq: 11 11:40:02 08 Feb 12 HG

Hg 10.0 ppb 32503

*** Check Standard: 2 Ck2ICV Seq: 12 11:44:48 08 Feb 12 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		107.	2.14	2.00	ppb	.000

Approved: February 08, 2012

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------

*** Check Standard: 3  Ck3ICB       Seq:  13      11:46:30 08 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          26.8     .054    .200   ppb        .000

*** Check Standard: 4  Ck4CCV       Seq:  14      11:48:25 08 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          105.     2.10    2.00   ppb        .000

*** Check Standard: 5  Ck5CCB       Seq:  15      11:50:09 08 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          32.1     .064    .200   ppb        .000

*** Sample ID: WG38893702            Seq:  16     11:57:53 08 Feb 12   HG
                           PBW 7R
Hg    .018    ppb       .000      .018

================================================================================
*** Sample ID: WG38893703            Seq:  17     11:59:46 08 Feb 12   HG
                           LCSW 7R
Hg    4.28    ppb       .000      4.28
                                                                              =
================================================================================
*** Sample ID: WG38889501            Seq:  18     12:01:28 08 Feb 12   HG
                           TCLP BLANK
Hg    .079    ppb       .000      .079
                                                                              =
================================================================================
*** Sample ID: WG38889502            Seq:  19     12:03:21 08 Feb 12   HG
                           TCLP BLANK
Hg    .108    ppb       .000      .108
                                                                              =
================================================================================
*** Sample ID: 1201079801            Seq:  20     12:05:02 08 Feb 12   HG

Hg    .091    ppb       .000      .091
                                                                              =
================================================================================
*** Sample ID: WG38902301            Seq:  21     12:06:44 08 Feb 12   HG
                           1201079801PS.9
Hg    1.02    ppb       .000      1.02
                                                                              =
================================================================================
*** Sample ID: 1202006401            Seq:  22     12:08:26 08 Feb 12   HG

Hg    .217    ppb       .000      .217
                                                                              =
================================================================================
```

Approved: February 08, 2012

Protocol: standard

POST-RUN REPORT

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------

*** Sample ID: WG38902302            Seq:  23     12:10:08 08 Feb 12   HG
                            1202006401PS.9
Hg    1.25    ppb       .000      1.25
                                                                                =
================================================================================
*** Sample ID: 1202006701            Seq:  24     12:12:12 08 Feb 12   HG

Hg    .090    ppb       .000      .090
                                                                                =
================================================================================
*** Sample ID: 1220200790            Seq:  25     12:14:05 08 Feb 12   HG

Hg    .084    ppb       .000      .084
                                                                                =
*** Check Standard: 4  Ck4CCV        Seq:  26     12:15:48 08 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          103.     2.05    2.00   ppb        .000
                                                                                =
*** Check Standard: 5  Ck5CCB        Seq:  27     12:17:30 08 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          45.0     .090    .200   ppb        .000
                                                                                =
*** Sample ID: 1202008101            Seq:  28     12:19:17 08 Feb 12   HG

Hg    .068    ppb       .000      .068
                                                                                =
================================================================================
*** Sample ID: 1202008202            Seq:  29     12:21:10 08 Feb 12   HG

Hg    .089    ppb       .000      .089
                                                                                =
================================================================================
*** Sample ID: 1202009101            Seq:  30     12:22:54 08 Feb 12   HG
                            WG38893701
Hg   -.003    ppb       .000     -.003
                                                                                =
================================================================================
*** Sample ID: WG38893704            Seq:  31     12:24:38 08 Feb 12   HG
                            1202009101S
Hg    4.26    ppb       .000      4.26
                                                                                =
================================================================================
*** Sample ID: WG38893705            Seq:  32     12:26:22 08 Feb 12   HG
                            1202009101SD
Hg    4.32    ppb       .000      4.32
                                                                                =
================================================================================
```

Approved: February 08, 2012

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
--------------------------------------------------------------------------------

*** Sample ID: 1202013506            Seq:  33     12:28:19 08 Feb 12   HG

Hg    .145    ppb       .000      .145
                                                                                =
================================================================================
*** Sample ID: 1202014601            Seq:  34     12:30:52 08 Feb 12   HG

Hg    .162    ppb       .000      .162
                                                                                =
*** Check Standard: 4  Ck4CCV       Seq:  35      12:32:55 08 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          103.     2.07    2.00   ppb        .000
                                                                                =
*** Check Standard: 5  Ck5CCB       Seq:  36      12:34:39 08 Feb 12   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          28.2     .056    .200   ppb        .000
                                                                                =
```

Approved: February 08, 2012

2.2 General Chemistry Data

2.2.1 Method 9056

2.2.1.1 Summary Data

Login Number: L12010798
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: All acceptance criteria were met.

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: 41810
Approved By: Mike Cochran

Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL22-0112-1	**Prep Method:**	300.0	**Prep Date:**	02/03/2012 13:04
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	12/21/2011 13:49
Workgroup #:	WG388787	**Analyst:**	JBK	**Run Date:**	02/03/2012 14:54
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	I20203121454.09
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	13.2		0.200	0.100
Fluoride	16984-48-8	0.387		0.200	0.100
Sulfate	14808-79-8	29.1		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: 020312 IC2.SEQ
Analyst1: JBK Analyst2: NA
Method: 9056/300 SOP: IC1 Rev: 12

Maintenance Log ID: 40534 Syringe Filter Lot#: 00126569

Column 1 ID: AG14A-4MM Column 2 ID: AS14A-4MM
Workgroups: WG388787
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: L12020016 (ALL) and L12020044-02 and -03 were analyzed at dilutions only due to Cl concentrations greater than the ICAL. L12020043-01, -03, -05, -07, -09, -11 were analyzed at dilutions only due to SO4 concentrations greater than the ICAL.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	I20203121227.01	ELUENT	1	1		02/03/12 12:27
2	I20203121245.02	DI WATER	1	1		02/03/12 12:45
3	I20203121304.03	WG388920-01 ANION CCV	1	1		02/03/12 13:04
4	I20203121322.04	WG388920-02 ANION CCB	1	1		02/03/12 13:22
5	I20203121341.05	WG388787-01 ANION BLANK	1	1		02/03/12 13:41
6	I20203121359.06	WG388787-02 ANION LCS	1	1		02/03/12 13:59
7	I20203121417.07	L12010803-01 (F,CL,BR,SO4)	1	1		02/03/12 14:17
8	I20203121436.08	L12010803-02 (F,CL,BR,SO4)	1	1		02/03/12 14:36
9	I20203121454.09	L12010798-01 (F,CL,SO4)	1	1		02/03/12 14:54
10	I20203121513.10	L12020016-01 1/4 (F,CL,SO4)	1	4		02/03/12 15:13
11	I20203121531.11	WG388787-04 DUP 1/4 016-01	1	4		02/03/12 15:31
12	I20203121549.12	L12020016-02 1/4 MS	1	4		02/03/12 15:49
13	I20203121608.13	L12020016-03 1/4 SD	1	4		02/03/12 16:08
14	I20203121626.14	L12020016-04 1/4 (F,CL,SO4)	1	4		02/03/12 16:26
15	I20203121645.15	WG388920-03 ANION CCV	1	1		02/03/12 16:45
16	I20203121703.16	WG388920-04 ANION CCB	1	1		02/03/12 17:03
17	I20203121722.17	L12020016-05 1/4 (F,CL,SO4)	1	4		02/03/12 17:22
18	I20203121740.18	L12020016-06 1/4 (F,CL,SO4)	1	4		02/03/12 17:40
19	I20203121758.19	L12020016-07 1/2 (F,CL,SO4)	1	2		02/03/12 17:58
20	I20203121817.20	L12020044-01 (F,CL,SO4)	1	1		02/03/12 18:17
21	I20203121835.21	L12020044-02 1/4 (F,CL,SO4)	1	4		02/03/12 18:35
22	I20203121854.22	L12020044-03 1/4 (F,CL,SO4)	1	4		02/03/12 18:54
23	I20203121912.23	L12020043-01 1/15 RS (CL,SO4)	1	15		02/03/12 19:12
24	I20203121931.24	WG388787-08 1/15 DUP 043-01	1	15		02/03/12 19:31
25	I20203121949.25	L12020043-03 1/15 MS	1	15		02/03/12 19:49
26	I20203122007.26	L12020043-05 1/15 SD	1	15		02/03/12 20:07
27	I20203122026.27	WG388920-05 ANION CCV	1	1		02/03/12 20:26
28	I20203122044.28	WG388920-06 ANION CCB	1	1		02/03/12 20:44
29	I20203122103.29	L12020043-07 1/15 (CL,SO4)	2	15		02/03/12 21:03
30	I20203122121.30	L12020043-09 1/15 (CL,SO4)	2	15		02/03/12 21:21
31	I20203122139.31	L12020043-11 1/15 (CL,SO4)	2	15		02/03/12 21:39
32	I20203122158.32	L12020043-13 (CL,SO4)	2	1		02/03/12 21:58
33	I20203122216.33	WG388920-07 ANION CCV	1	1		02/03/12 22:16

Page: 1 Approved: 07-FEB-12

Microbac Laboratories Inc.

Instrument Run Log

Instrument: IC2 Dataset: 020312 IC2.SEQ
Analyst1: JBK Analyst2: NA
Method: 9056/300 SOP: IC1 Rev: 12

Maintenance Log ID: 40534 Syringe Filter Lot#: 00126569

Column 1 ID: AG14A-4MM Column 2 ID: AS14A-4MM
Workgroups: WG388787
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	I20203122235.34	WG388920-08 ANION CCB	1	1		02/03/12 22:35
35	I20203122253.35	END	1	1		02/03/12 22:53

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Page: 2 Approved: 07-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: 03-FEB-2012
Analyst: JBK
Analyst: NA
Method: 300/9056
Instrument: IC2
Curve Workgroup: NA
Runlog ID: 45005
Analytical Workgroups: WG388787

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:
07-FEB-2012

Secondary Reviewer:
07-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-07-2012 09:28:19

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 300.0 AAB#: WG388787

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12					02/03/12	4	28		02/03/12	.1	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2299947
Report generated 02/07/2012 11:41

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
Blank File ID: I20203121341.05
Prep Date: 02/03/12 13:04
Analyzed Date: 02/03/12 13:41
Analyst: JBK

Work Group: WG388787
Blank Sample ID: WG388787-01
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	WG388787-02	I20203121359.06	02/03/12 13:59	01
MPL22-0112-1	L12010798-01	I20203121454.09	02/03/12 14:54	01
DUP	WG388787-04	I20203121531.11	02/03/12 15:31	DL01
DUP	WG388787-08	I20203121931.24	02/03/12 19:31	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 2299948
Report generated 02/07/2012 11:41

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 Prep Date: 02/03/12 13:04 Sample ID: WG388787-01
Instrument ID: IC2 Run Date: 02/03/12 13:41 Prep Method: 300.0
File ID: I20203121341.05 Analyst: JBK Method: 300.0
Workgroup (AAB#): WG388787 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: 2299949
07-FEB-2012 11:41

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Run Date: 02/03/2012 Sample ID: WG388787-02
Instrument ID: IC2 Run Time: 13:59 Prep Method: 300.0
File ID: I20203121359.06 Analyst: JBK Method: 300.0
Workgroup (AAB#): WG388787 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	7.43	92.8	90 - 110	
Fluoride	8.00	7.66	95.7	90 - 110	
Sulfate	40.0	37.7	94.3	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2299950
Report generated: 02/07/2012 11:41

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L12010798
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: 2299951
Report generated 02/07/2012 11:41

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L12010798

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: 2299951
Report generated 02/07/2012 11:41

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L12010798

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: 2299951
Report generated 02/07/2012 11:41

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L12010798 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: 2299952
Report generated 02/07/2012 11:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010798
Run Date: 02/03/2012
Sample ID: WG388920-02
Instrument ID: IC2
Run Time: 13:22
Method: 300.0
File ID: I20203121322.04
Analyst: JBK
Units: mg/L
Workgroup (AAB#): WG388787
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: 2299954
Report generated 02/07/2012 11:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12010798
Run Date: 02/03/2012
Sample ID: WG388920-04
Instrument ID: IC2
Run Time: 17:03
Method: 300.0
File ID: I20203121703.16
Analyst: JBK
Units: mg/L
Workgroup (AAB#): WG388787
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: 2299954
Report generated 02/07/2012 11:41

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010798
Run Date: 02/03/2012
Sample ID: WG388920-01
Instrument ID: IC2
Run Time: 13:04
Method: 300.0
File ID: I20203121304.03
Analyst: JBK
QC Key: DOD4
Workgroup (AAB#): WG388787
Cal ID: IC2 - 21-DEC-11
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		8.00	7.49	mg/L	7.21	6.33	10	
Fluoride		8.00	7.66	mg/L	5.06	4.30	10	
Sulfate		40.0	37.8	mg/L	9.12	5.52	10	

* Exceeds %D Criteria

CCV - Modified 03/05/2008
PDF File ID: 2299953
Report generated 02/07/2012 11:41

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12010798
Run Date: 02/03/2012
Sample ID: WG388920-03
Instrument ID: IC2
Run Time: 16:45
Method: 300.0
File ID: I20203121645.15
Analyst: JBK
QC Key: DOD4
Workgroup (AAB#): WG388787
Cal ID: IC2 - 21-DEC-11
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		8.00	7.71	mg/L	7.02	3.66	10	
Fluoride		8.00	7.65	mg/L	5.06	4.40	10	
Sulfate		40.0	38.3	mg/L	8.99	4.16	10	

* Exceeds %D Criteria

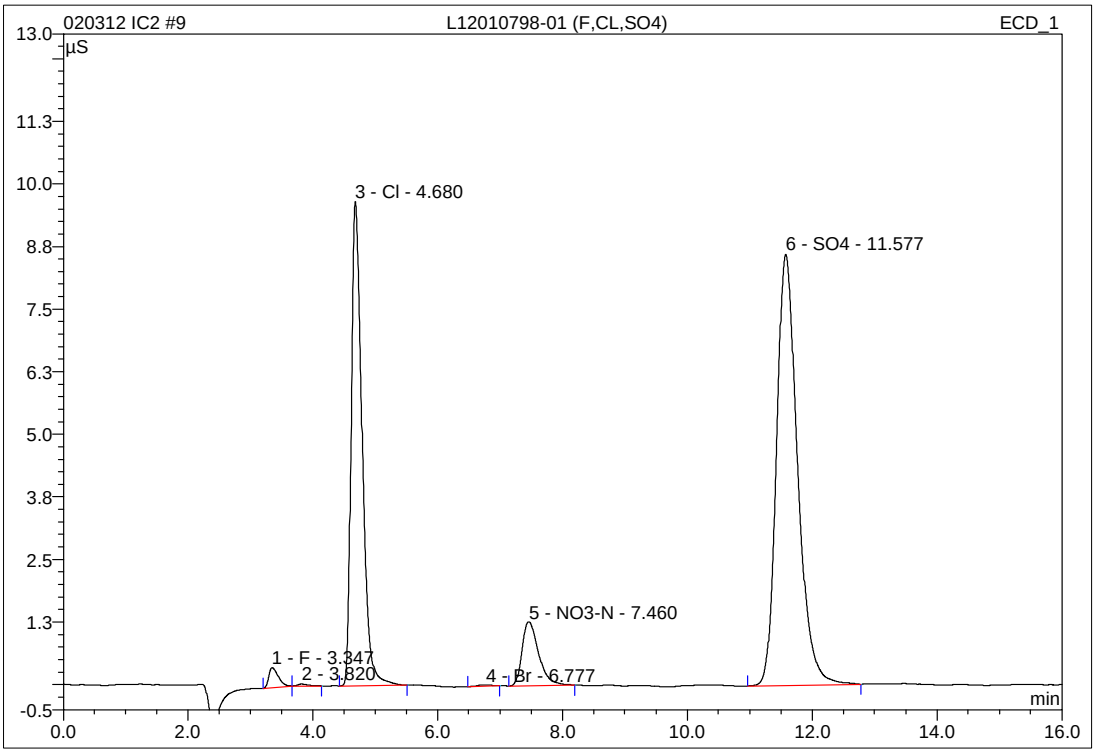
CCV - Modified 03/05/2008
PDF File ID: 2299953
Report generated 02/07/2012 11:41

2.2.1.3 Sample Data

9 L12010798-01 (F,CL,SO4)

1,1 JBK

Sample Name:	**L12010798-01 (F,CL,SO4)**	*Injection Volume:*	**25.0**
Vial Number:	**9**	*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:	**2/3/2012 14:54**	*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	3.35	F	0.399	0.071	1.23	0.387	BMB
2	3.82	n.a.	0.037	0.007	0.12	n.a.	bMB
3	4.68	Cl	9.671	1.961	33.76	13.242	BMB
4	6.78	Br	0.027	0.007	0.12	0.177	BMB
5	7.46	NO3-N	1.279	0.393	6.77	1.110	BMB
6	11.58	SO4	8.611	3.368	57.99	29.076	BMB
Total:			20.023	5.807	100.00	43.992	

IC/Integration

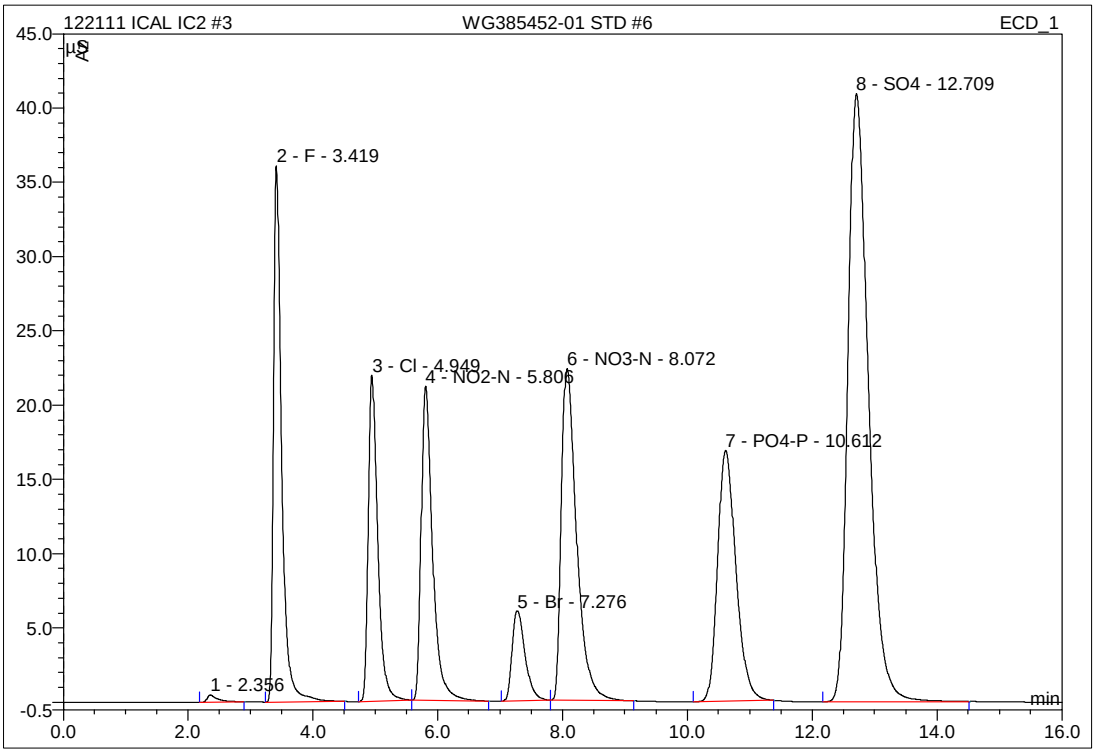
Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

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	

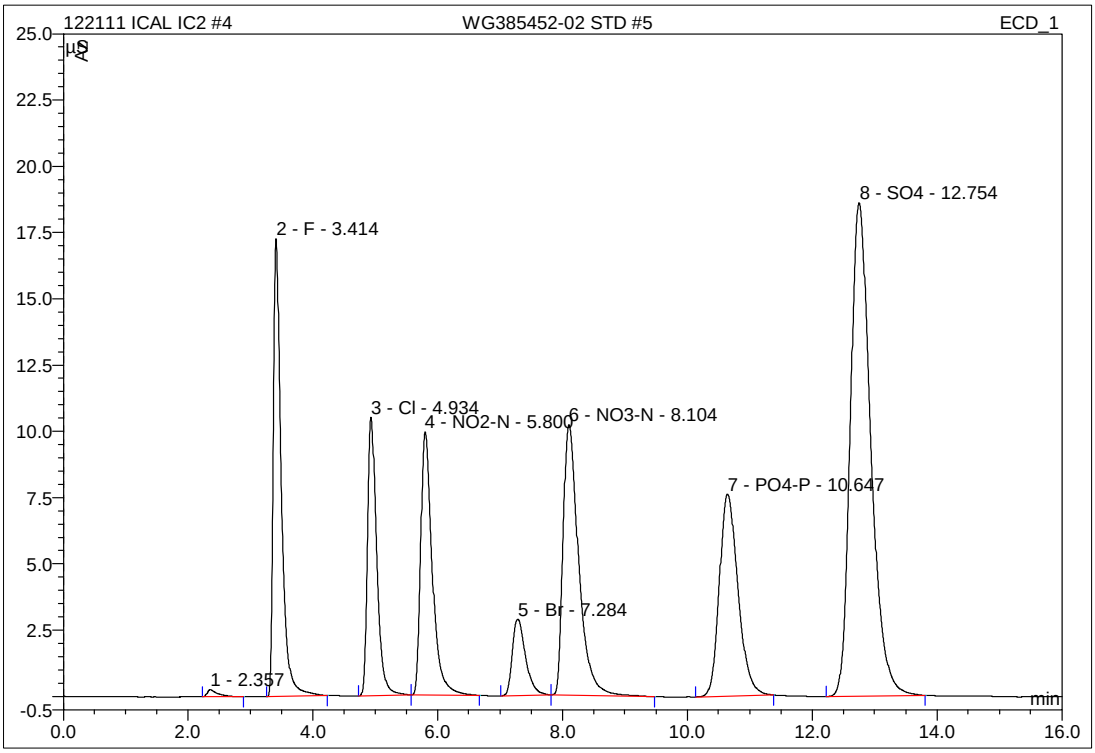
IC/Integration

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	

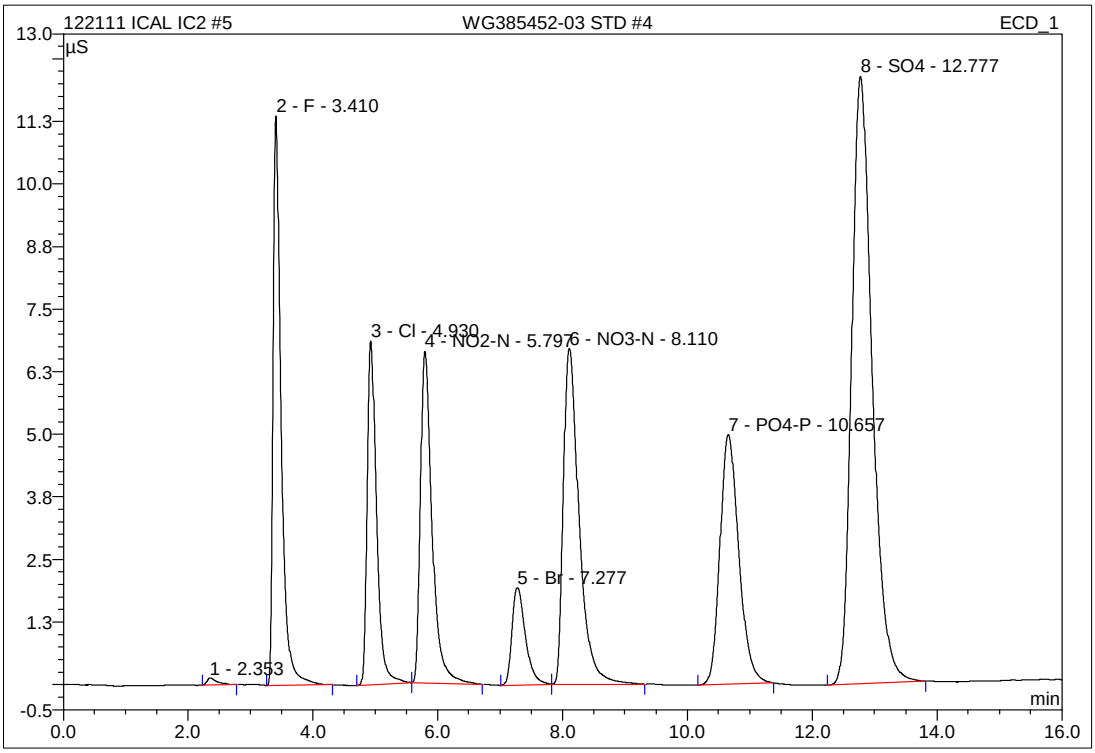
IC/Integration

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	

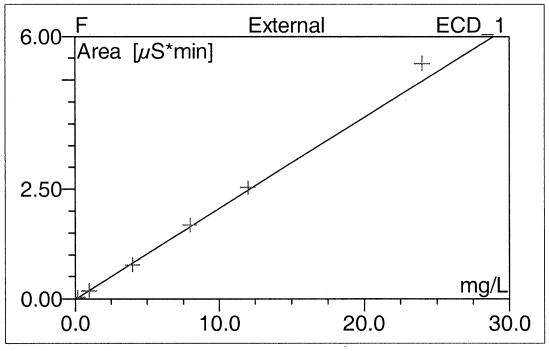
IC/Integration

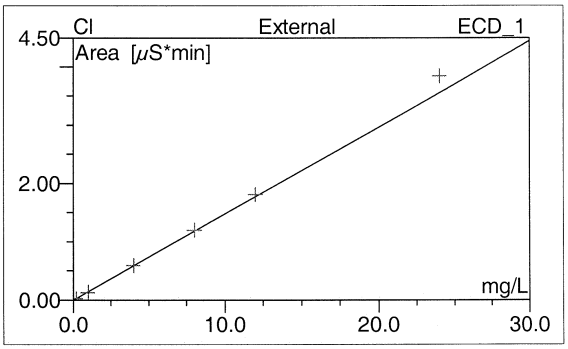
Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

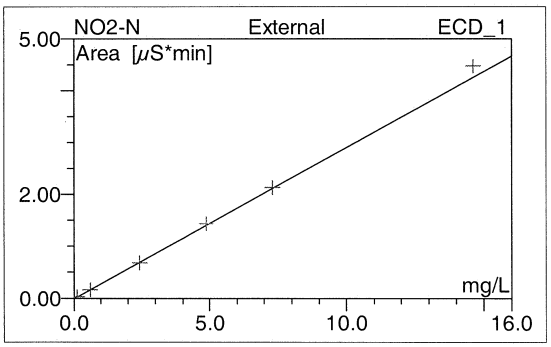
5 WG385452-03 STD #4

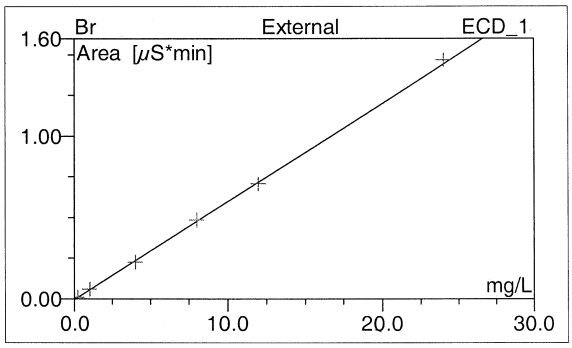
1,1 JBK STD48131

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

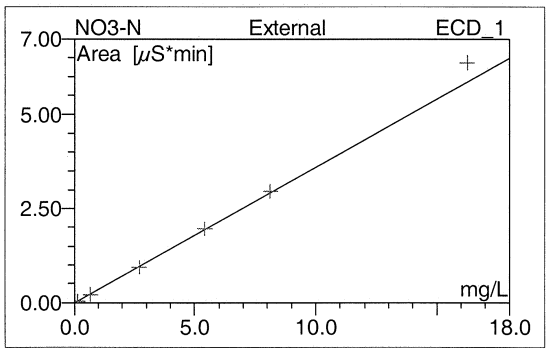
IC/Calibration(Batch)

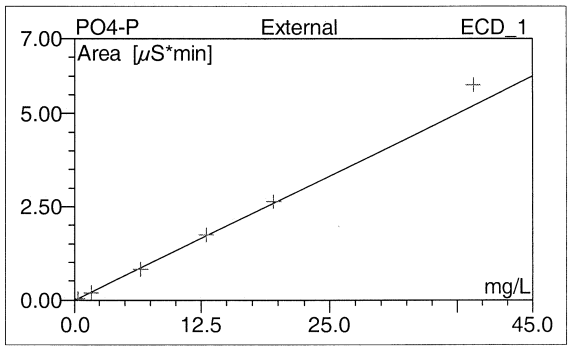
Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

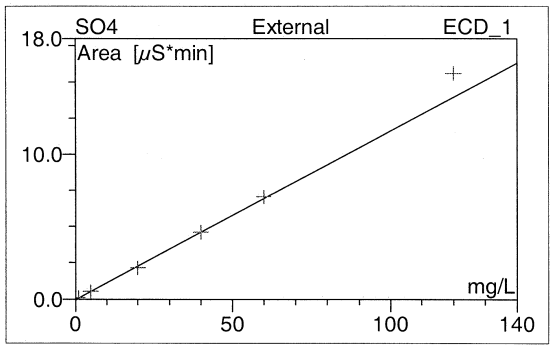
5 WG385452-03 STD #4

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

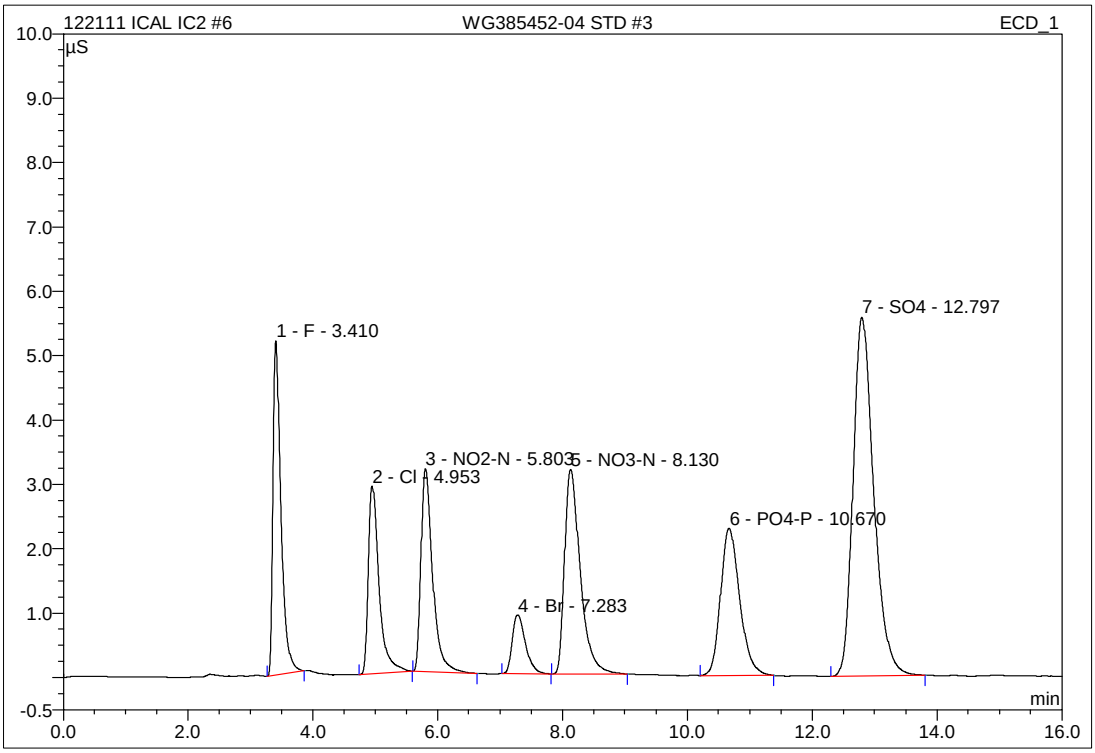
IC/Calibration(Batch)(2)

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	

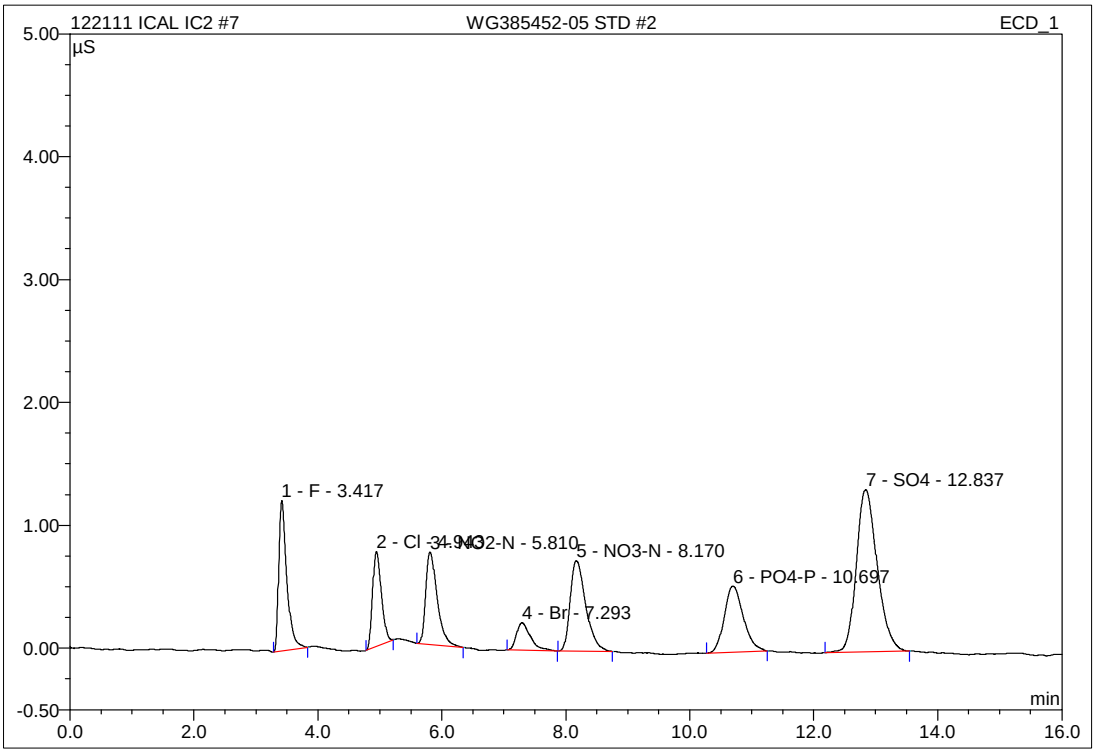
IC/Integration

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	

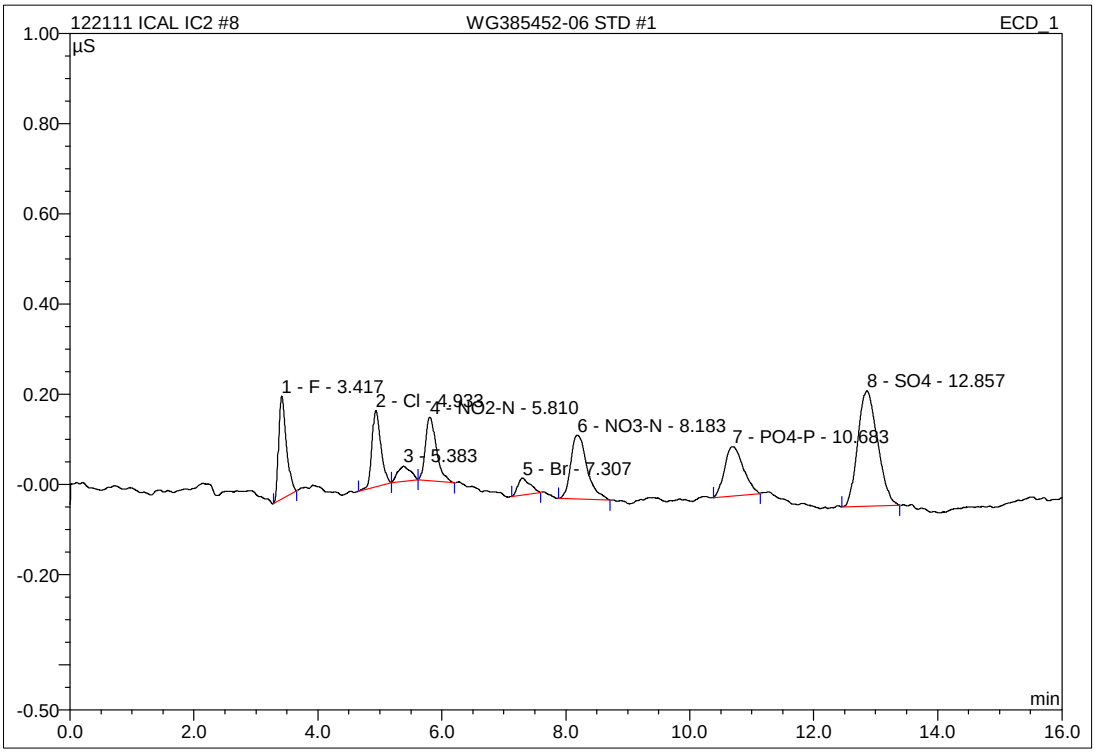
IC/Integration

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	

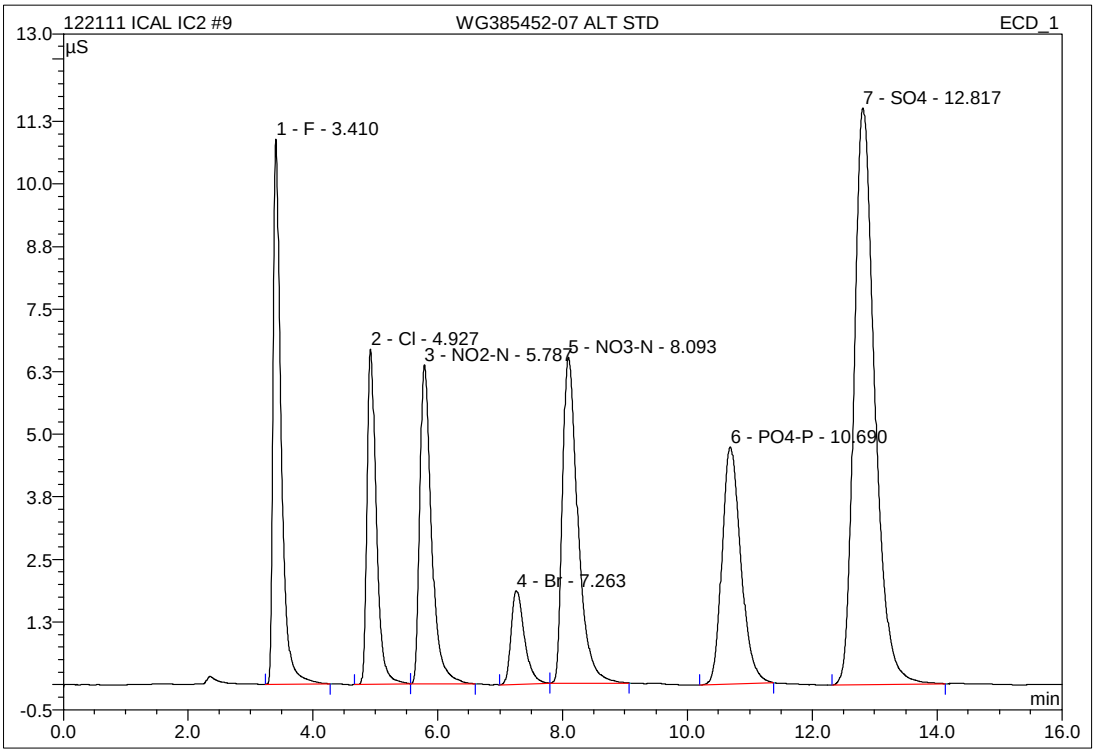
IC/Integration

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

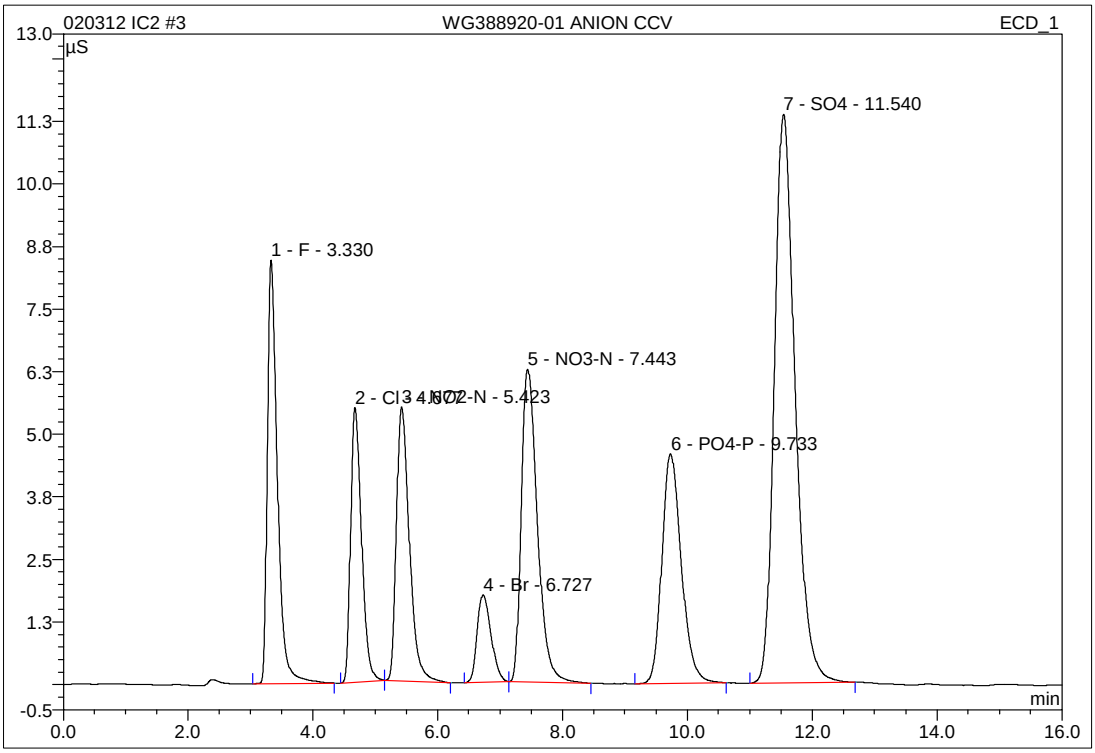
Sample Name:	**WG385452-07 ALT STD**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/21/2011 14:07**	*Sample 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 WG388920-01 ANION CCV

1,1 JBK STD48131 _____ psi @_____

Sample Name:	**WG388920-01 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:	**2/3/2012 13:04**	*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	8.461	1.582	12.79	7.656	BMB
2	4.68	Cl	5.481	1.109	8.96	7.494	BMb
3	5.42	NO2-N	5.470	1.319	10.66	4.546	bMB
4	6.73	Br	1.746	0.453	3.66	7.586	BMB
5	7.44	NO3-N	6.249	1.864	15.07	5.196	BMB
6	9.73	PO4-P	4.585	1.661	13.42	12.502	BMB
7	11.54	SO4	11.363	4.384	35.44	37.791	BMB
Total:			43.354	12.372	100.00	82.772	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

3 WG388920-01 ANION CCV

1,1 JBK STD48131 _____ psi @_____

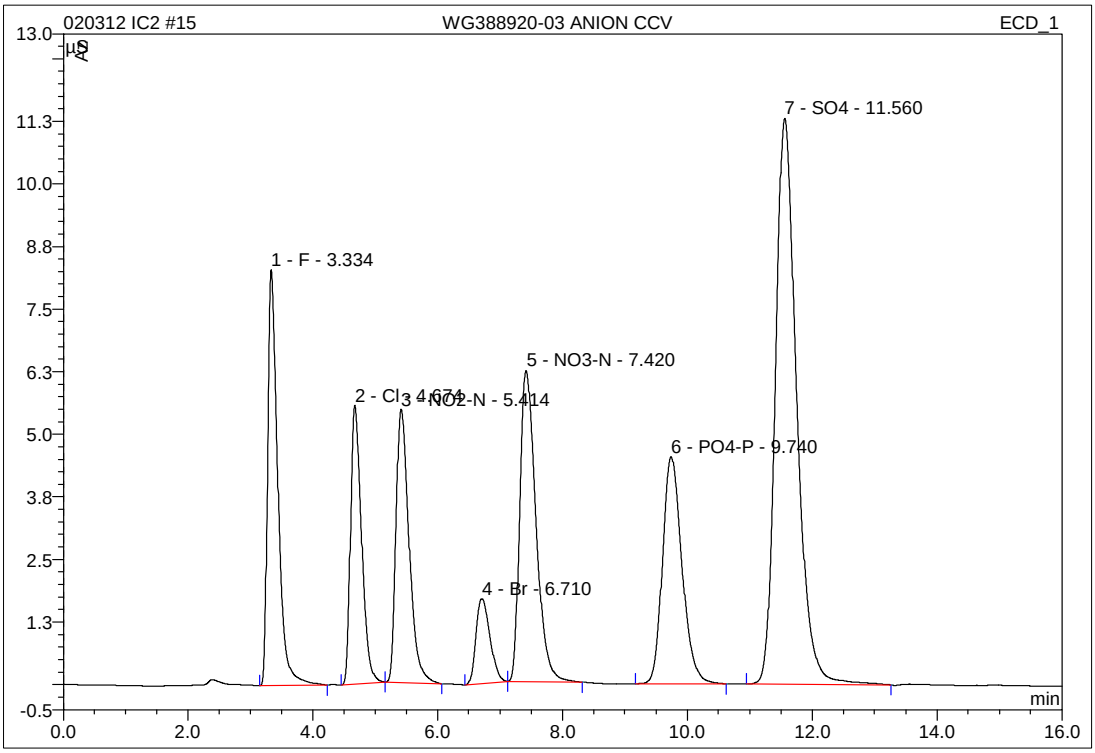
Sample Name:	**WG388920-01 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/3/2012 13:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**

WG388920-01 ANI(	Actual mg/L	Recovered mg/L	%Difference	
F	8.00	7.6562	-4.30	PASS
Cl	8	7.4937	-6.33	PASS
NO2-N	4.8714	4.5461	-6.68	PASS
NO3-N	5.4216	5.1961	-4.16	PASS
Br	8	7.5864	-5.17	PASS
SO4	40	37.7911	-5.52	PASS
PO4-P	13.0456	12.5022	-4.17	PASS

15 WG388920-03 ANION CCV

1,1 JBK STD48131

Sample Name:	**WG388920-03 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:	**2/3/2012 16:45**	*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	8.306	1.581	12.71	7.648	BMB
2	4.67	Cl	5.566	1.140	9.17	7.707	BMb
3	5.41	NO2-N	5.462	1.326	10.66	4.570	bMB
4	6.71	Br	1.696	0.439	3.53	7.359	BMB
5	7.42	NO3-N	6.209	1.859	14.95	5.181	BMB
6	9.74	PO4-P	4.534	1.641	13.20	12.359	BMB
7	11.56	SO4	11.303	4.448	35.77	38.336	BMB
Total:			43.076	12.434	100.00	83.160	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

15 WG388920-03 ANION CCV

1,1 JBK STD48131

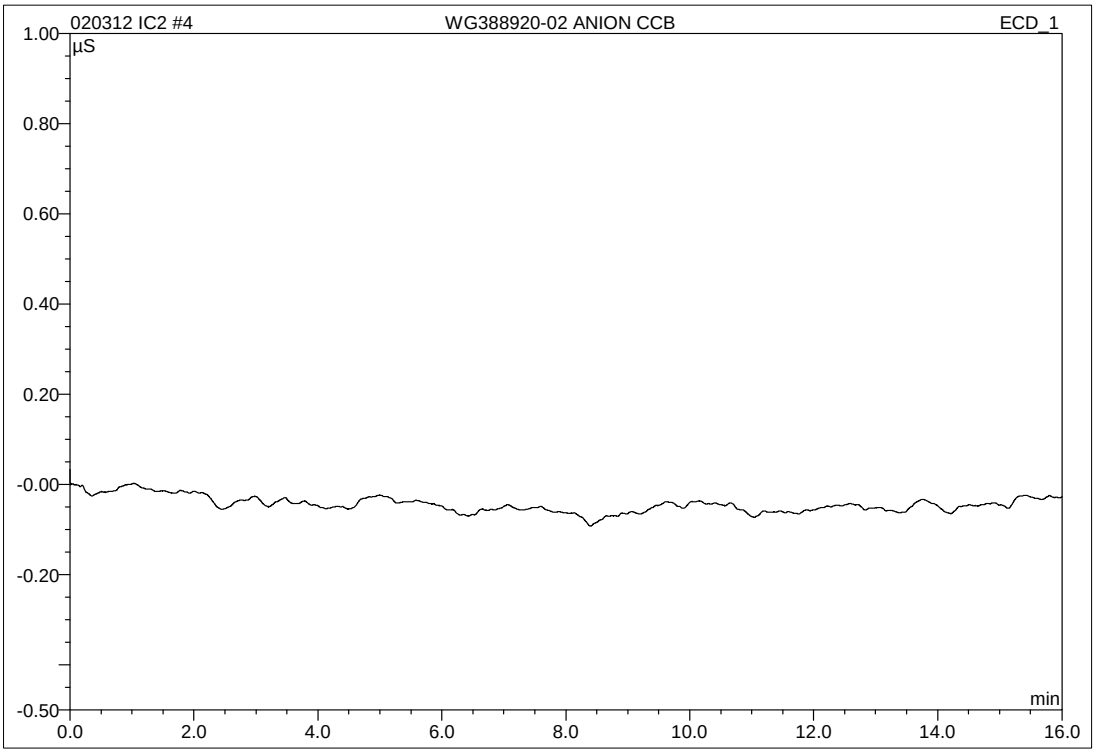
Sample Name:	**WG388920-03 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/3/2012 16:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**

WG388920-03 ANI(	Actual mg/L	Recovered mg/L	%Difference	
F	8.00	7.6480	-4.40	PASS
Cl	8	7.7069	-3.66	PASS
NO2-N	4.8714	4.5699	-6.19	PASS
NO3-N	5.4216	5.1812	-4.43	PASS
Br	8	7.3594	-8.01	PASS
SO4	40	38.3358	-4.16	PASS
PO4-P	13.0456	12.3589	-5.26	PASS

4 WG388920-02 ANION CCB

1,1 JBK

Sample Name:	**WG388920-02 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:	**2/3/2012 13:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**16.00**	*Sample Amount:*	**1.0000**

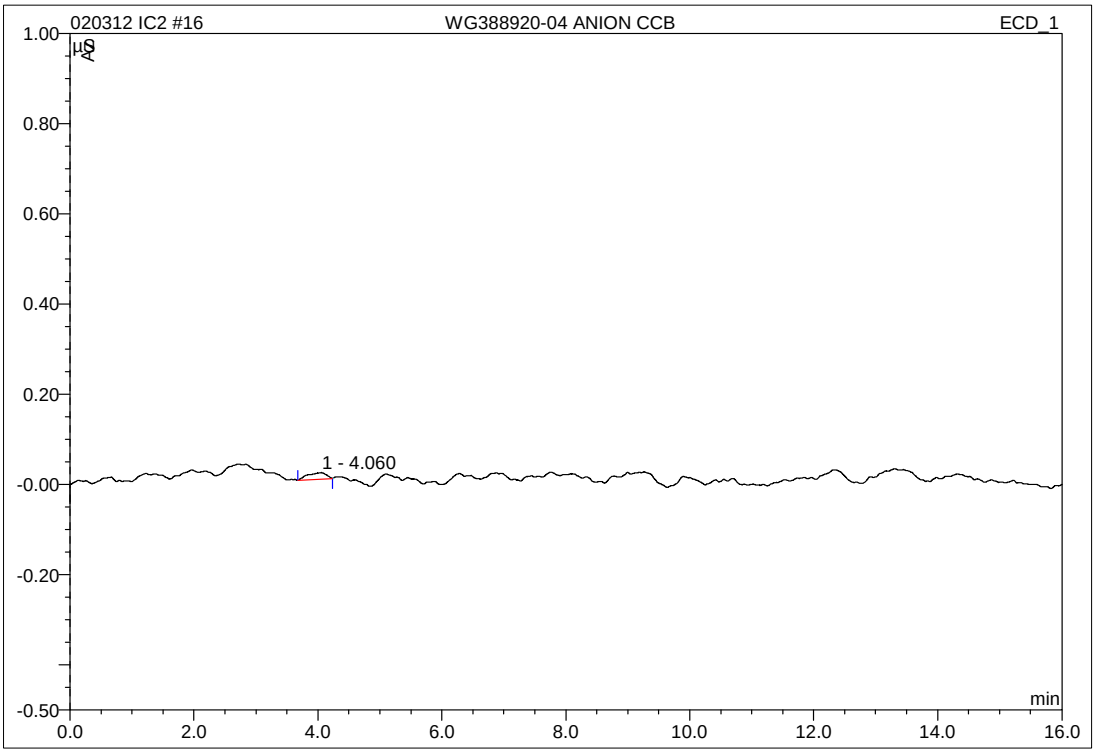


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

16 WG388920-04 ANION CCB

1,1 JBK

Sample Name:	**WG388920-04 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:	**2/3/2012 17:03**	*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	4.06	n.a.	0.014	0.005	100.00	n.a.	BMB
Total:			0.014	0.005	100.00	0.000	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

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

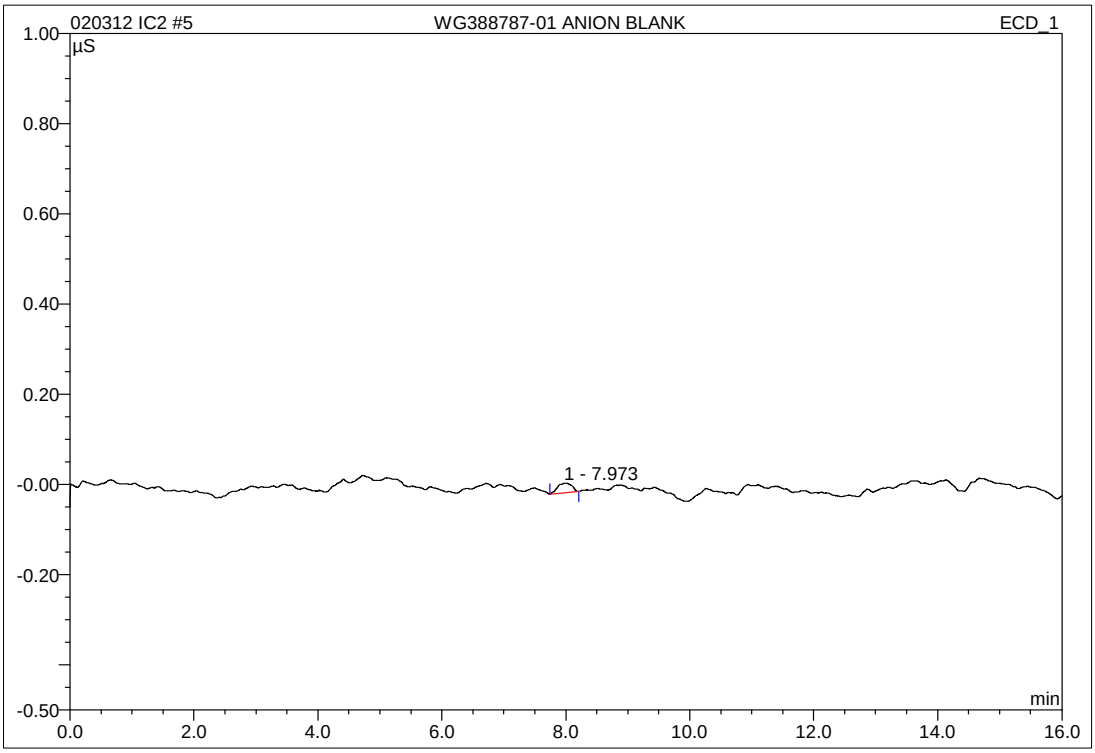
COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
F	3.387	3.377	3.367	0.030
Cl	4.867	4.864	4.837	0.050
NO2-N	5.724	5.717	5.684	0.064
Br	7.174	7.160	7.117	0.089
NO3-N	8.020	8.007	7.954	0.105
PO4-P	10.640	10.607	10.580	0.090
SO4	12.580	12.574	12.507	0.122

2.2.1.5 Raw QC Data

5 WG388787-01 ANION BLANK

1,1 JBK

Sample Name:	**WG388787-01 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:	**2/3/2012 13:41**	*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	7.97	n.a.	0.022	0.006	100.00	n.a.	BMB
Total:			0.022	0.006	100.00	0.000	

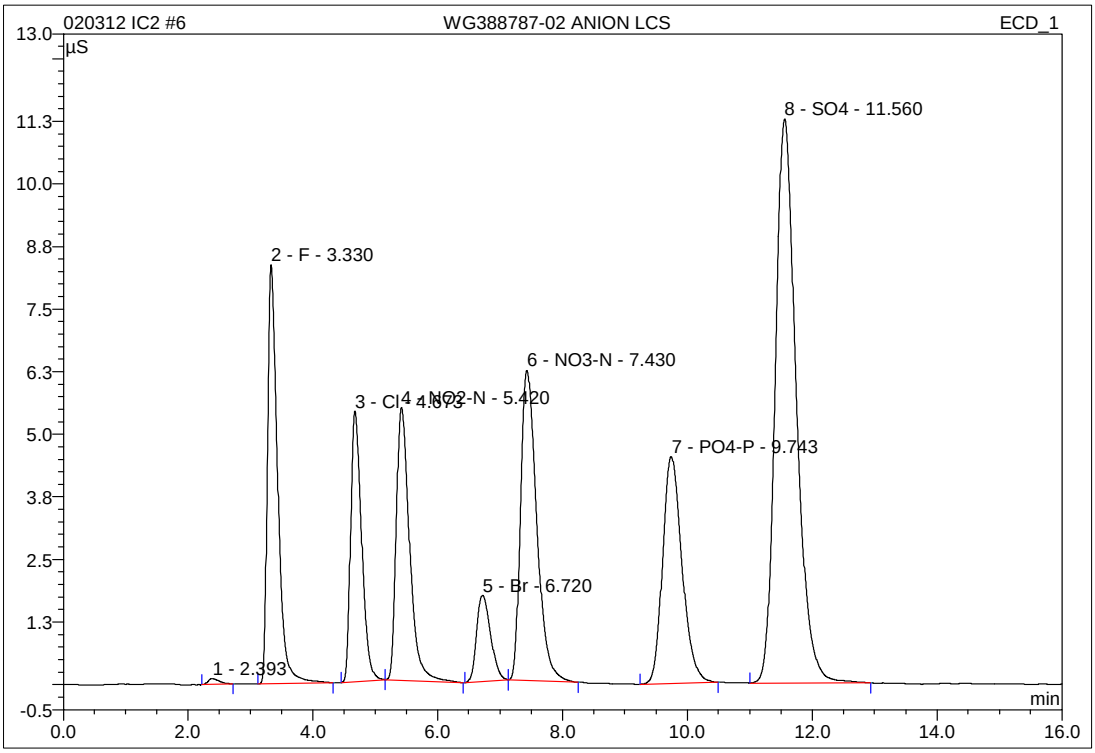
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

6 WG388787-02 ANION LCS

1,1 JBK STD48131

Sample Name:	**WG388787-02 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:	**2/3/2012 13:59**	*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	2.39	n.a.	0.114	0.023	0.19	n.a.	BMB
2	3.33	F	8.374	1.583	12.81	7.657	BMB
3	4.67	Cl	5.404	1.099	8.89	7.426	BMb
4	5.42	NO2-N	5.451	1.346	10.89	4.638	bMB
5	6.72	Br	1.723	0.446	3.61	7.468	BMb
6	7.43	NO3-N	6.195	1.852	14.99	5.163	bMB
7	9.74	PO4-P	4.533	1.632	13.21	12.289	BMB
8	11.56	SO4	11.269	4.378	35.43	37.739	BMB
Total:			43.063	12.358	100.00	82.379	

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: L12010798
Department: Conventionals
Analyst: Dorothy Payne

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: 42092
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	ORION-4STAR
Client ID:	MPL22-0112-1	**Prep Method:**	9040C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9040C	**Cal Date:**	
Workgroup #:	WG388428	**Analyst:**	DLP	**Run Date:**	01/31/2012 16:07
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	OS12020114021001
Sample Tag:		**Units:**	UNITS		

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	8.12		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: 31-JAN-2012
Analyst: DLP
Analyst: NA
Method: PH
Instrument: ORION 4-STAR
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388428

Calibration/Linearity	01-31-12
Second Source Check	
ICV/CCV (std)	
ICB/CCB	
Blank	
LCS/LCS Dup	
MS/MSD	
Duplicate	X
Upload Results	
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	
Primary Reviewer	DLP
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
31-JAN-2012

Secondary Reviewer:
02-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-02-2012 11:35:37

2.2.2.3 Raw Data

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 6 STD49324	7,4,10	1600 ~~1605~~	5.98			1605	B,C) SW846 9045D
PE 01-763-15		1620		6.81		1620	A) SM 4500-H(+)-B
01-769-01		1610	6.33			1610	A) EPA 150.1
-02		1613	9.25			1613	A) SW846 9040C
01-769-01		1615		7.50		1615	SOP K1501 Rev 13
01-792-01		1633			5.57	1633	
01-794-01		1628		5.01		1628	
-03		1630		6.69		1630	
01-798-01		1607	8.12			1607	
		1600					
	time of cal. for all						
DUP 01-763-15	7,4,10	1625		6.81		1625	
LCS 9 STD49325	1	1630	8.97				

Circle Instrument

Orion 4-Star

Orion 710A #1

Orion 710A #2

Bante 922

Analyst: Quattry Rhyne Date: 01-31-12/1605

DCN#89783

TCLP Daily

Date: 01-30-12

Start Time:

Solids: 1500

Filtration:

	Kemron#	Client	Due	Me	Sv	Pest	Herb	Voa	PCB	ph-l		Comments
#1	01-735-02	MICRO.OVD	2/08			✓		✓				PESXs
#2	03				✓	✓						
#3	04						✓					
#4	05											
#5	741-01	URS	2/03			✓	✓	✓				
#6	745-01	M.CRO			✓	✓	✓					PESX
#7	763-14		2/08	✓								F2
#8	775-01	ARCRIS	2/03	✓						✓		
#9	769-01	SHAW		★	✓	✓	✓	✓				
#10	FBLK(1)	—	—	✓								F2
#11	FBLK(2)	—	—	✓								
#12												
#13												
#14												
#15												
#16												
#17												
#18												
#19												
#20												
#21												
#22												

☑ perform analysis
★ perform analysis and spike sample

Comments:

Work Groups		Run ID's
Filtered:		
TC-Me:	WG	R
TC-Sv:	WG	R
TC-Pest:	WG	R
TC-Herb:	WG	R
TC-Voa:	WG	R
TC-Me(org):	WG	R
TC-Sv(org):	WG	R
TC-Voa(org):	WG	R
Agitated:		
TC-Me:	WG 388323	R
TC-Sv:	WG 388321	R
TC-Pest:	WG 388320	R
TC-Herb:	WG 388318	R
TC-Voa:	WG 388316	R
pH-L:	WG 388314	R
	WG	R
	WG	R
	WG	R
	WG	R
	WG	R
	WG	R
	WG	R

SPLP Daily

Date: 01-30-12

	Microbac#	Client	Due	Me	8270	8081	8151	8082	827-pahl	VOA	pH-L	Comments
#1	01-769-02	SWHW	3/02	✓							✓	
#2	FBLK	N/A	—	✓								
#3												
#4												
#5												
#6												
#7												
#8												
#9												
#10												
#11												
#12												
#13												
#14												
#15												
#16												
#17												
#18												
#19												
#20												
#21												
#22												

Start Time:

Solids: 1500

Filtration:

	Work Groups	Run ID's
		Agitated:
Spip-Me:	WG 388312	R
Spip-8270:	WG	R
Spip-Voa:	WG	R
Spip-827-pahl:	WG	R
Spip-8081:	WG	R
Spip-8082:	WG	R
pH-L.:	WG 388311	R
	WG	R
	WG	R
	WG	R
	WG	R
	WG	R
	WG	R

☑ perform analysis

★ perform analysis and spike sample

Comments:

2.2.3 Alkalinity Data

2.2.3.1 Summary Data

Login Number: L12010798
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: All acceptance criteria were met.

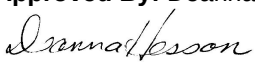
Duplicates: All acceptance criteria were met.

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: 41688
Approved By: Deanna Hesson



Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL22-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	02/03/2012 11:29
Workgroup #:	WG388663	**Analyst:**	DIH	**Run Date:**	02/03/2012 11:43
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	SC120203002.030
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 #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL22-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	02/03/2012 11:29
Workgroup #:	WG388663	**Analyst:**	DIH	**Run Date:**	02/03/2012 11:43
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	SC120203002.030
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Bicarbonate (as CaCO3)		67.6		20.0	10.0

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL22-0112-1	**Prep Method:**	310.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	02/03/2012 11:29
Workgroup #:	WG388663	**Analyst:**	DIH	**Run Date:**	02/03/2012 11:43
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	SC120203002.030
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)		67.6		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: 03-FEB-2012
Analyst: DIH
Analyst: NA
Method: ALK
Instrument: SC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388749 WG388663

Calibration/Linearity	2/3/2012
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:
03-FEB-2012

Secondary Reviewer:
03-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-03-2012 14:46:24

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 310.2 AAB#: WG388663

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12							14		02/03/12	4	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2298208
Report generated 02/03/2012 14:14

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
Blank File ID: SC120203002.010
Prep Date: 02/03/12 11:31
Analyzed Date: 02/03/12 11:31
Analyst: DIH

Work Group: WG388663
Blank Sample ID: WG388663-01
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	WG388663-02	SC120203002.011	02/03/12 11:31	01
LCS2	WG388663-03	SC120203002.012	02/03/12 11:32	01
DUP	WG388663-05	SC120203002.015	02/03/12 11:33	01
MPL22-0112-1	L12010798-01	SC120203002.030	02/03/12 11:43	01
MPL22-0112-1	L12010798-01	SC120203002.030	02/03/12 11:43	01
MPL22-0112-1	L12010798-01	SC120203002.030	02/03/12 11:43	01

Report Name: BLANK_SUMMARY
PDF File ID: 2298209
Report generated 02/03/2012 14:14

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 Prep Date: 02/03/12 11:31 Sample ID: WG388663-01
Instrument ID: SMARTCHEM Run Date: 02/03/12 11:31 Prep Method: 310.2
File ID: SC120203002.010 Analyst: DIH Method: 310.2
Workgroup (AAB#): WG388663 Matrix: Water Units: mg/L
Contract #: Cal ID: SMARTC - 03-FEB-12

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Alkalinity, Total (as CaCO3)	10.0	20.0	-19.7	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: 2298210
03-FEB-2012 14:14

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Analyst: DIH Prep Method: 310.2
Instrument ID: SMARTCHEM Matrix: Water Method: 310.2
Workgroup (AAB#): WG388663 Units: mg/L
QC Key: DOD4 Lot #: STD49459

Sample ID: WG388663-02 LCS File ID: SC120203002.011 Run Date: 02/03/2012 11:31
Sample ID: WG388663-03 LCS2 File ID: SC120203002.012 Run Date: 02/03/2012 11:32

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Alkalinity, Total (as CaCO3)	200	190	95.1	200	194	97.1	2.08	85 - 115	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2298211
Report generated: 02/03/2012 14:14

2.2.3.3 Raw Data

WORKGROUP: WG388663 A

388749 B

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 A
Plan # 20120203002
2) Workgroup _____
Plan # _____
3) Workgroup B
Plan # 20120203003

	Analyte	1	2	3
		ALK		
		Dilution		
SC Prepared Curve				
Position				
1-1	ICV 250			
1-2	BLK			
1-3	LCS 200			
1-4	LCSDUP			
1-5	01-726-01	1/4	1/2	
1-6	02-043-01		1/2	+BC
1-7	DUP01		1/2	
1-8	MS02 03		1/2	
1-9	MSd03 05		1/2	
1-10	07		1/2	
1-11	09		1/2	
1-12	11			
1-13	13			
1-14	01-808-01	1/5		
1-15	03	1/5		
1-16	01-810-02	1/5		
1-17	03	1/5		
1-18	05	1/5		
1-19	06	1/5		
1-20	01-798-01			+BC
1-21	02-016-01			
1-22	MS02			
2-1	MSd03			
2-2	04			
2-3	05			

Position	Analyte	1	2	3
2-4	02-016-06			+BC
2-5	07			
2-6				
2-7				
2-8	Run 2			
2-9 1	ICV 250			
2-10 2	BLK			
2-11 3	LCS 200			
2-12 4	LCSDUP			
2-13 5	02-043-01	1/2		
2-14 6	DUP01	1/2		
2-15 7	MS03	1/2		
2-16 8	MSd05	1/2		
2-17 9	07	1/2		
2-18 10	09	1/2		
2-19 11				
2-20 12				
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#89811

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
- [] Ammonia — EPA 350.1/SM 4500-NH3 B
- [] TKN — EPA 351.2
- [] Phos — EPA 365.4

Analyte	ALK		Reagents
SOP & Revision	K3102 R14		R6+17006
Curve Stock (SC made)	std 47063		
Curve ID (user made)			
ICV	std 49458		
CCV	std 49513		
LCS	std 49459		
MS	std 47064 Dilution 0.2/5(2500)=100		

Comments: 02-043, 01-798, 02-016 are pH < 8.3

Analyst: [signature] Date: 2/3/12

DCN#89811

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	0.5616	0.00		11:23:57 AM
DIL-1	RBL	0.0	0.5770	0.00		11:24:15 AM
DIL-1	RBL	0.0	0.5799	0.00		11:25:09 AM
DIL-1	Std-1	0.0	-0.0071	0.00		11:25:27 AM
SR5-1	Std-2	10.0	-0.0194	0.00		11:26:21 AM
SR5-2	Std-3	20.0	-0.0238	0.00		11:26:39 AM
SR5-3	Std-4	50.0	-0.0558	0.00		11:27:33 AM
SR5-4	Std-5	100.0	-0.1216	0.00		11:27:51 AM
SR5-5	Std-6	200.0	-0.2745	0.00		11:28:45 AM
SR5-6	Std-7	250.0	-0.3436	0.00		11:29:03 AM
SR5-7	Std-8	300.0	-0.4035	0.00		11:29:57 AM
1	ICV 250	244.0	-0.3287	0.00		11:30:15 AM
2	WG388663-01 BLK	-19.7	0.0235	0.00	INV,><,LL	11:31:09 AM
3	WG388663-02 LCS	190.3	-0.2522	0.00		11:31:27 AM
4	WG388663-03 LCSDUP	194.3	-0.2578	0.00		11:32:22 AM
5	L12010726-01 (4)	148.1	-0.1941	0.00		11:32:39 AM
6	L12020043-01 -05	329.2	-0.4560	0.00	><,LH	11:33:33 AM
7	WG388663-05 (2) DUP	333.4	-0.4626	0.00	><,LH	11:33:51 AM
8	L12020043-03 (2) MS wg-06	339.4	-0.4719	0.00	><,LH	11:34:46 AM
9	L12020043-05 (2) MSD -07	341.3	-0.4748	0.00	><,LH	11:35:03 AM
10	L12020043-07 (2)	323.2	-0.4468	0.00	><,LH	11:35:58 AM
ST-2	CCV (150 mg/L)	160.0	-0.2103	106.67		11:36:16 AM
ST-3	CCB (0 mg/L)	-9.0	0.0102	0.00	INV,><,LL	11:37:10 AM
11	L12020043-09 (2)	318.6	-0.4398	0.00	><,LH	11:37:28 AM
12	L12020043-11	183.3	-0.2425	0.00		11:38:22 AM
13	L12020043-13	23.0	-0.0300	0.00		11:38:40 AM
14	L12010808-01 (5)	167.5	-0.2206	0.00		11:39:34 AM
15	L12010808-03 (5)	232.3	-0.3118	0.00		11:39:52 AM
16	L12010810-02 (5)	224.7	-0.3009	0.00		11:40:46 AM
17	L12010810-03 (5)	187.6	-0.2485	0.00		11:41:04 AM
18	L12010810-05 (5)	231.5	-0.3106	0.00		11:41:58 AM
19	L12010810-06 (5)	155.8	-0.2045	0.00		11:42:16 AM

Report Date :02/03/2012 Run Date :2/3/2012 Operator : WESTCO Plan # :20120203002

Plan Description : ALK-B-DIH/2/3/2012

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	L12010798-01	67.6	-0.0871	0.00		11:43:10 AM
ST-2	CCV (150 mg/L)	162.3	-0.2135	108.22		11:43:28 AM
ST-3	CCB (0 mg/L)	-4.9	0.0051	0.00	INV,><,LL	11:44:22 AM
21	L12020016-01	147.6	-0.1934	0.00		11:44:40 AM
22	L12020016-02 MS	162.4	-0.2136	0.00		11:45:34 AM
23	L12020016-03 MSD	157.7	-0.2072	0.00		11:45:52 AM
24	L12020016-04	103.4	-0.1341	0.00		11:46:46 AM
25	L12020016-05	122.1	-0.1590	0.00		11:47:04 AM
26	L12020016-06	128.7	-0.1678	0.00		11:47:58 AM
27	L12020016-07	102.1	-0.1324	0.00		11:48:16 AM
28	ID 28	13.3	-0.0178	0.00		11:49:10 AM
29	ID 29	16.3	-0.0215	0.00		11:49:28 AM
30	ID 30	17.6	-0.0232	0.00		11:50:22 AM
ST-2	CCV (150 mg/L)	173.6	-0.2290	115.73		11:50:40 AM
ST-3	CCB (0 mg/L)	15.6	-0.0206	0.00		11:51:34 AM
6-[1/2]	L12020043-01	468.3	-0.3144	0.00	LH	11:59:04 AM
7-[1/2]	WG388663-05 (2) DUP	487.5	-0.3283	0.00	LH	12:00:16 PM
8-[1/2]	L12020043-03 (2) MS	503.9	-0.3402	0.00	LH	12:01:28 PM
9-[1/2]	L12020043-05 (2) MSD	527.1	-0.3572	0.00	LH	12:02:40 PM
10-[1/2]	L12020043-07 (2)	462.0	-0.3099	0.00	LH	12:03:52 PM
11-[1/2]	L12020043-09 (2)	456.2	-0.3057	0.00	LH	12:05:04 PM
ST-2	CCV (150 mg/L)	186.3	-0.2467	124.23		12:05:04 PM
ST-3	CCB (0 mg/L)	32.7	-0.0423	0.00		12:05:58 PM

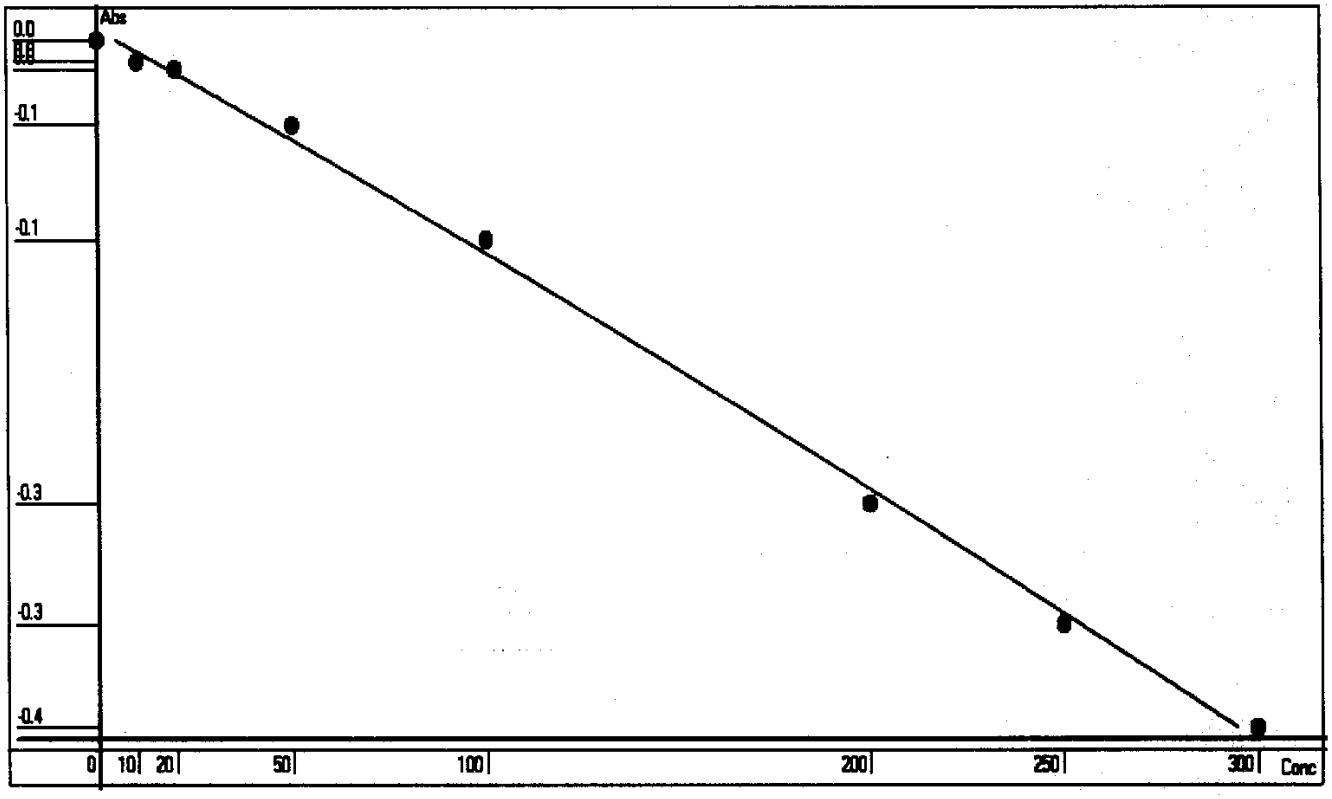
Report Date :02/03/2012 **Run Date :2/3/2012** **Operator : WESTCO** **Plan # :20120203002**

Plan Description : ALK-B-DIH/2/3/2012

Calibrant Report - WALK -

Calib Lot #:010104 Exp Date:6/21/2020 User:MICROBAC

Plan # : 20120203002 Description : [ALK-B-DIH/2/3/2012]



Point	OD	Conc	Recalc Conc	% Error
1	-0.0071	0	4.8601	486.01
2	-0.0194	10	14.6471	46.47
3	-0.0238	20	18.1358	-9.32
4	-0.0558	50	43.3128	-13.37
5	-0.1216	100	94.0044	-6.00
6	-0.2745	200	206.1916	3.10
7	-0.3436	250	254.3208	1.73
8	-0.4035	300	294.7468	-1.75

Conc= -167.6274*Abso^2 -800.1262*Abso -0.8123 R^2=0.9978

RBL
0.5785
0

Report Date 2/3/2012 Run Date 2/3/2012

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
DIL-1	RBL	0.0	0.4752	0.00		12:22:20 PM
DIL-1	RBL	0.0	0.4874	0.00		12:22:38 PM
DIL-1	RBL	0.0	0.4883	0.00		12:23:32 PM
DIL-1	Std-1	0.0	-0.0132	0.00		12:23:50 PM
SR5-1	Std-2	10.0	-0.0201	0.00		12:24:44 PM
SR5-2	Std-3	20.0	-0.0334	0.00		12:25:02 PM
SR5-3	Std-4	50.0	-0.0548	0.00		12:25:56 PM
SR5-4	Std-5	100.0	-0.1199	0.00		12:26:14 PM
SR5-5	Std-6	200.0	-0.2395	0.00		12:27:08 PM
SR5-6	Std-7	250.0	-0.3051	0.00		12:27:26 PM
SR5-7	Std-8	300.0	-0.3519	0.00		12:28:20 PM
1	ICV 250	241.7	-0.2875	0.00		12:28:38 PM
2	BLK wg 388749-01	-16.4	0.0099	0.00	INV,><,LL	12:29:32 PM
3	LCS -02	205.7	-0.2446	0.00		12:29:50 PM
4	LCSDUP -03	189.9	-0.2259	0.00		12:30:44 PM
5	L12020043-01 (2)	200.1	-0.2380	0.00		12:31:02 PM
6	dm 2/3/12 WG388~~663~~749-05 (2) DUP	205.3	-0.2441	0.00		12:31:56 PM
7	L12020043-03 (2) MS	224.8	-0.2673	0.00		12:32:15 PM
8	L12020043-05 (2) MSD	222.5	-0.2646	0.00		12:33:09 PM
9	L12020043-07 (2)	189.9	-0.2259	0.00		12:33:26 PM
10	L12020043-09 (2)	184.9	-0.2201	0.00		12:34:21 PM
ST-2	CCV (150 mg/L)	150.0	-0.1792	100.01		12:34:39 PM
ST-3	CCB (0 mg/L)	-22.2	0.0163	0.00	INV,><,LL	12:35:33 PM

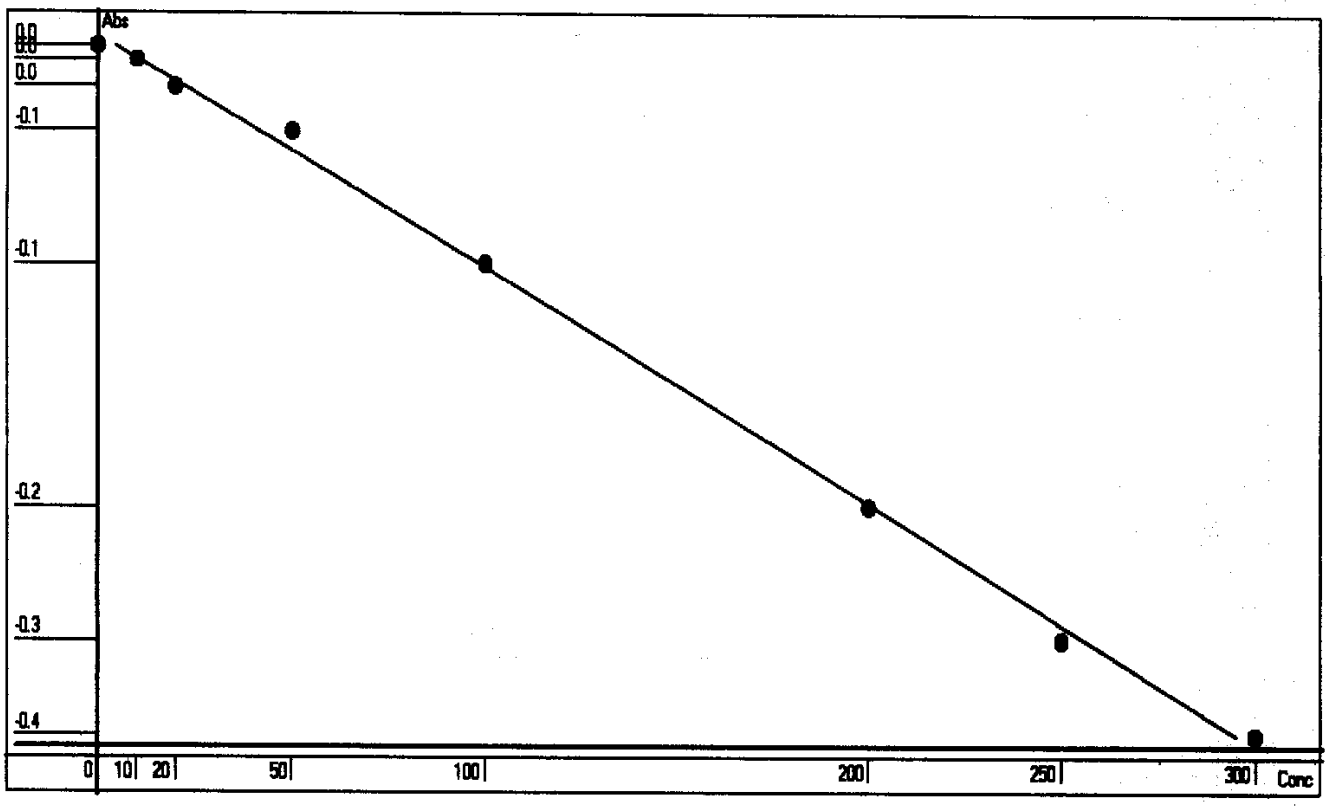
Report Date :02/03/2012 **Run Date :2/3/2012** **Operator : WESTCO** **Plan # :20120203003**

Plan Description : ALK-C-DIH/2/3/2013

Calibrant Report - WALK -

Calib Lot #:010104 Exp Date:6/21/2020 User:MICROBAC

Plan # : 20120203003 Description : [ALK-C-DIH/2/3/2013]



Point	OD	Conc	Recalc Conc	% Error
1	-0.0132	0	4.3745	437.45
2	-0.0201	10	10.5550	5.55
3	-0.0334	20	22.4375	12.19
4	-0.0548	50	41.4724	-17.06
5	-0.1199	100	98.7368	-1.26
6	-0.2395	200	201.4282	0.71
7	-0.3051	250	256.3718	2.55
8	-0.3519	300	294.9708	-1.68

Conc= -113.7708*Abso^2 -899.5134*Abso -7.4793 R^2=0.9983

RBL
0.4879
0

Report Date 2/3/2012 Run Date 2/3/2012

2.2.4 Cyanide Data

2.2.4.1 Summary Data

Login Number: L12010798
Department: Conventionals
Analyst: Jeremy Kinney

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.

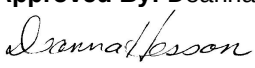
Duplicates: All acceptance criteria were met.

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: 41783
Approved By: Deanna Hesson



Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL22-0112-1	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	02/03/2012 13:25
Workgroup #:	WG388634	**Analyst:**	JBK	**Run Date:**	02/03/2012 13:30
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	1V.1202031330-06
Sample Tag:		**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 #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL22-0112-1	**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:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	1V.1202031410-09
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 #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL22-0112-1	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	02/08/2012 08:25
Workgroup #:	WG388947	**Analyst:**	JBK	**Run Date:**	02/08/2012 08:40
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	1V.1202080840-07
Sample Tag:	wd	**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

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: 03-FEB-2012
Analyst: JBK
Analyst: NA
Method: CN
Instrument: UV-120-1V
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388634

Calibration/Linearity	02/03/2012
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	
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 15:17:39

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.

Data Checklist

Date: 08-FEB-2012
Analyst: DLP
Analyst: JBK
Method: CN
Instrument: UV-120-1V
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388947

Calibration/Linearity	2/8/2012
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	
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:
08-FEB-2012

Secondary Reviewer:
08-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-08-2012 15:10:28

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9014-9010C

AAB#: WG388634

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12							14		02/03/12	4.1	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2299487
Report generated 02/06/2012 15:06

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM4500-CN-C,G

AAB#: WG388635

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12							14		02/03/12	4.1	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2299532
Report generated 02/06/2012 15:07

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM4500-CN-I

AAB#: WG388947

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12							14		02/08/12	8.9	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2302572
Report generated 02/08/2012 14:48

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
Blank File ID: 1V.1202031330-01
Prep Date: 02/03/12 13:30
Analyzed Date: 02/03/12 13:30
Analyst: JBK

Work Group: WG388634
Blank Sample ID: WG388634-01
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	WG388634-02	1V.1202031330-02	02/03/12 13:30	
LCS	WG388634-03	1V.1202031330-03	02/03/12 13:30	
MPL22-0112-1	L12010798-01	1V.1202031330-06	02/03/12 13:30	
DUP	WG388634-06	1V.1202031330-18	02/03/12 13:30	

Report Name: BLANK_SUMMARY
PDF File ID: 2299491
Report generated 02/06/2012 15:06

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
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
MPL22-0112-1	L12010798-01	1V.1202031410-09	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: 2299533
Report generated 02/06/2012 15:07

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
Blank File ID: 1V.1202080840-03
Prep Date: 02/08/12 08:40
Analyzed Date: 02/08/12 08:40
Analyst: JBK

Work Group: WG388947
Blank Sample ID: WG388947-01
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	WG388947-02	1V.1202080840-04	02/08/12 08:40	wd
LCS	WG388947-03	1V.1202080840-05	02/08/12 08:40	wd
MPL22-0112-1	L12010798-01	1V.1202080840-07	02/08/12 08:40	wd
DUP	WG388947-06	1V.1202080840-22	02/08/12 08:40	wd

Report Name: BLANK_SUMMARY
PDF File ID: 2302573
Report generated 02/08/2012 14:48

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 Prep Date: 02/03/12 13:30 Sample ID: WG388634-01
Instrument ID: UV-120-1V Run Date: 02/03/12 13:30 Prep Method: 9014-9010C
File ID: 1V.1202031330-01 Analyst: JBK Method: 9014-9010C
Workgroup (AAB#): WG388634 Matrix: Water Units: mg/L
Contract #: Cal ID: UV-120 - 03-FEB-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: 2299493
06-FEB-2012 15:06

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 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: 2299534
06-FEB-2012 15:07

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 Prep Date: 02/08/12 08:40 Sample ID: WG388947-01
Instrument ID: UV-120-1V Run Date: 02/08/12 08:40 Prep Method: SM4500-CN-I
File ID: 1V.1202080840-03 Analyst: JBK Method: SM4500-CN-I
Workgroup (AAB#): WG388947 Matrix: Water Units: mg/L
Contract #: Cal ID: UV-120 - 08-FEB-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: 2302574
08-FEB-2012 14:48

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Run Date: 02/03/2012 Sample ID: WG388634-02
Instrument ID: UV-120-1V Run Time: 13:30 Prep Method: 9014-9010C
File ID: 1V.1202031330-02 Analyst: JBK Method: 9014-9010C
Workgroup (AAB#): WG388634 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	0.200	0.201	101	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2299494
Report generated: 02/06/2012 15:06

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Run Date: 02/03/2012 Sample ID: WG388634-03
Instrument ID: UV-120-1V Run Time: 13:30 Prep Method: 9014-9010C
File ID: 1V.1202031330-03 Analyst: JBK Method: 9014-9010C
Workgroup (AAB#): WG388634 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	0.0400	0.0398	99.5	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2299494
Report generated: 02/06/2012 15:06

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 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: 2299535
Report generated: 02/06/2012 15:08

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Run Date: 02/08/2012 Sample ID: WG388947-02
Instrument ID: UV-120-1V Run Time: 08:40 Prep Method: SM4500-CN-I
File ID: 1V.1202080840-04 Analyst: JBK Method: SM4500-CN-I
Workgroup (AAB#): WG388947 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD48862 Cal ID: UV-120-08-FEB-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Cyanide, Weak/Dissociable	0.200	0.196	98.2	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2302575
Report generated: 02/08/2012 14:48

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Run Date: 02/08/2012 Sample ID: WG388947-03
Instrument ID: UV-120-1V Run Time: 08:40 Prep Method: SM4500-CN-I
File ID: 1V.1202080840-05 Analyst: JBK Method: SM4500-CN-I
Workgroup (AAB#): WG388947 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD48862 Cal ID: UV-120-08-FEB-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Cyanide, Weak/Dissociable	0.0400	0.0397	99.1	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2302575
Report generated: 02/08/2012 14:48

2.2.4.3 Raw Data

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

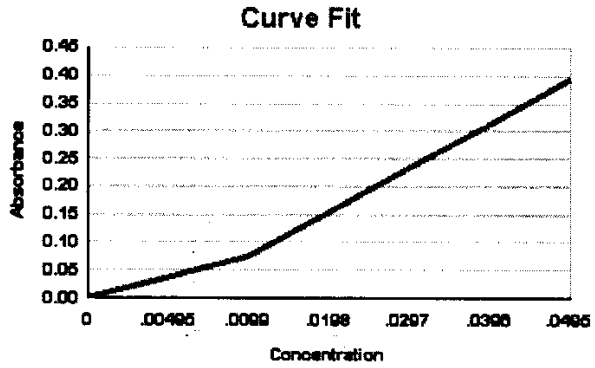
Microbac Laboratories Inc.
INITIAL CALIBRATION

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]

388771

Curves

Parameter: Cyanide High

Spectrophotometer: UV-120-1U

Calibration (Curve) standard stock: STO48861

Concentration: 990mg/L

Recipe for preparation of curve standards found in:

SOP: 43354 Revision: 14 Page: 15

Second Source Stock: STO48862 (concentration: 1000mg/L)

Daily Preparation: 5(100)/250=20
1:(20)/100=2

concentration = 5(2)/50=0.2

Calibration Standards (mg/L)	Volume (mL)	Cell Size (cm)	Wavelength (nm)	Absorbance
0.000	50	1	578	0.000
0.0198				0.030
0.0396				0.061
0.099				0.150
0.198				0.311
0.292				0.466
0.396				0.623
ICV (0.2)				0.318

Analyst: [signature] Date/Time: 2/3/12/1320

DCN#89824

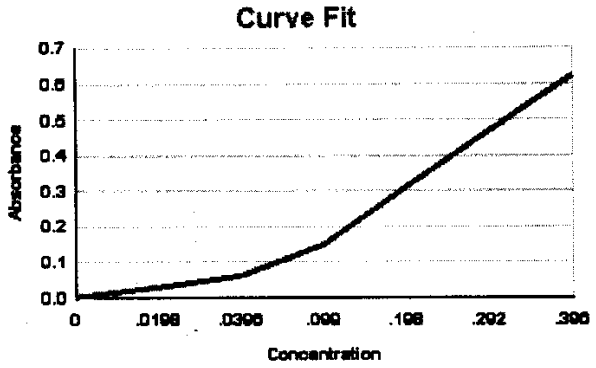
Microbac Laboratories Inc.
INITIAL CALIBRATION

Workgroup: WG388771
Analytical Method: 300
Instrument ID: UV-120-1V

Analyst: JBK
Initial Calibration Date: 02/03/2012

Analyte: CYANIDE
Number of Points: 7
Slope: 1.58417
Y-Intercept: -0.00192900
Coef. Of Correlation (R^2): 0.999817
Coef. Of Correlation (R): 0.999908

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00	0.00	0.00	-0.00192900
0.0198	0.0300	0.000392	0.000594	0.0294375
0.0396	0.0610	0.00157	0.00242	0.0608040
0.0990	0.150	0.00980	0.0149	0.154903
0.198	0.311	0.0392	0.0616	0.311736
0.292	0.466	0.0853	0.136	0.460647
0.396	0.623	0.157	0.247	0.625401



WG_ICAL_CAL_WET - Modified 03/06/2008
Report generated 02/03/2012 14:21

[redacted]

Microbac Laboratories Inc.
ALTERNATE SOURCE REPORT

Workgroup #: WG388771
File ID: 1V.1202031320-08
CCV ID: WG388771-08
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/03/2012
Run Time: 13:20
Analyst: JBK
Cal ID: UV-120 - 03-FEB-12 13:20:07

Analyte	Expected	Found	RF	%D	Q
Cyanide	.2	0.202	1.59	1.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_SSCV - Modified 03/06/2008
Report generated 02/03/2012 14:21

[redacted]

wg 3890860

Curves

Parameter: Cyanide Low

Spectrophotometer: UV-120-1V

Calibration (Curve) standard stock: STD 48841

Concentration: 990 mg/L

Recipe for preparation of curve standards found in:

SOP: 163354 Revision: 14 Page: 15

Second Source Stock: STD 48842 (concentration: 1000 mg/L

Daily Preparation: 5(1000)/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	↓	↓	↓	0.038
0.0099				0.077
0.0198				0.157
0.0297				0.240
0.0396				0.317
0.0495				0.392
ICV (0.04)				0.323

Analyst: [signature] Date/Time: 2/8/12/0825

DCN#89867

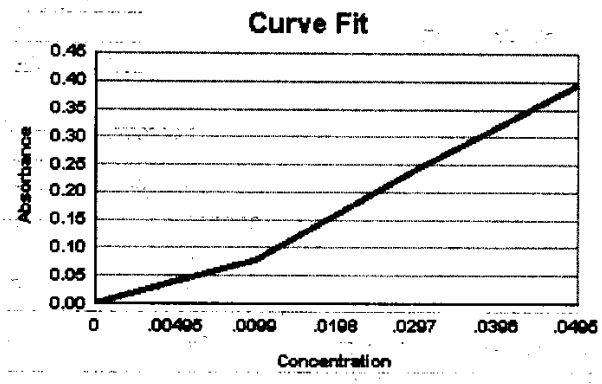
Microbac Laboratories Inc.
INITIAL CALIBRATION

Workgroup: WG389086
Analytical Method: 300
Instrument ID: UV-120-1V

Analyst: JBK
Initial Calibration Date: 02/08/2012

Analyte: CYANIDE
Number of Points: 7
Slope: 7.98462
Y-Intercept: -0.000605802
Coef. Of Correlation (R^2): 0.999813
Coef. Of Correlation (R): 0.999907

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00	0.00	0.00	-0.000605802
0.00495	0.0380	0.0000245	0.000188	0.0389181
0.00990	0.0770	0.0000980	0.000762	0.0784420
0.0198	0.157	0.000392	0.00311	0.157490
0.0297	0.240	0.000882	0.00713	0.236538
0.0396	0.317	0.00157	0.0126	0.315585
0.0495	0.392	0.00245	0.0194	0.394633



WG_ICAL_CAL_WET - Modified 03/06/2008
Report generated 02/08/2012 14:02

[redacted]

Microbac Laboratories Inc.
ALTERNATE SOURCE REPORT

Workgroup #: WG389086
File ID: 1V.1202080825-08
CCV ID: WG389086-08
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/08/2012
Run Time: 08:25
Analyst: JBK
Cal ID: UV-120 - 08-FEB-12 08:25:07

Analyte	Expected	Found	RF	%D	Q
Cyanide	.04	0.0405	8.08	1.3	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_SSCV - Modified 03/06/2008
Report generated 02/08/2012 14:02

[redacted]

/*

wg 389085

Curves

Parameter: Cyanide High

Spectrophotometer: UV-120-1V

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: STD 48862 (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
0.000	50	1	578	0.000
0.0198	↓	↓	↓	0.031
0.0396				0.062
0.099				0.155
0.198				0.317
0.292				0.472
0.394				0.645
ICV (0.2)				0.318

Analyst: [signature] Date/Time: 2/8/12/0820

DCN#89866

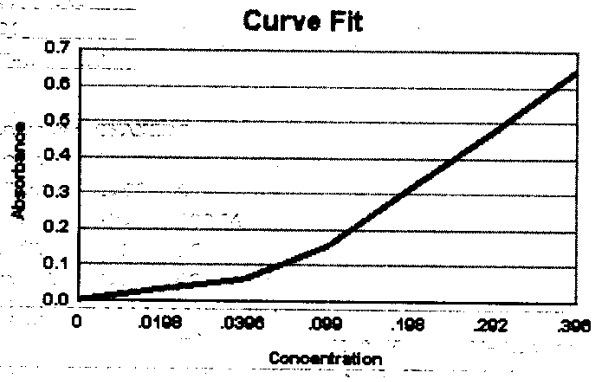
Microbac Laboratories Inc.
INITIAL CALIBRATION

Workgroup: WG389085
Analytical Method: 300
Instrument ID: UV-120-1V

Analyst: JRK
Initial Calibration Date: 02/08/2012

Analyte: CYANIDE
Number of Points: 7
Slope: 1.62854
Y-Intercept: -0.00269264
Coef. Of Correlation (R^2): 0.999896
Coef. Of Correlation (R): 0.999948

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00	0.00	0.00	-0.00269264
0.0198	0.0310	0.000392	0.000614	0.0295525
0.0396	0.0620	0.00157	0.00246	0.0617976
0.0990	0.155	0.00980	0.0153	0.158533
0.198	0.317	0.0392	0.0628	0.319759
0.292	0.472	0.0853	0.138	0.472841
0.396	0.645	0.157	0.255	0.642210



WG_ICAL_CAL_WET - Modified 03/06/2008
Report generated 02/08/2012 14:04

[redacted]

Microbac Laboratories Inc.
ALTERNATE SOURCE REPORT

Workgroup #: WG389085
File ID: 1V.1202080820-08
CCV ID: WG389085-08
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/08/2012
Run Time: 08:20
Analyst: JBK
Cal ID: UV-120 - 08-FEB-12 08:20:07

Analyte	Expected	Found	RF	%D	Q
Cyanide	.2	0.197	1.59	1.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_SSCV - Modified 03/06/2008
Report generated 02/08/2012 14:05

[redacted]

WORKGROUP: WG388634

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): 48861 TRUE VALUE: 990
Daily dilution: 5(990)/250 = 19.8
10(19.8)/100 = 1.98 5/50(1.98) = 0.198
10(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
5(2)/50 = 0.2
10(2)/50 = 0.04

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): 0.2 ppm	50	✓	X = none		1	0.312
CCV (low): 0.02 ppm		✓	X		5	0.155
Blank		✓	X		↓	0.006
LCS: 0.2 ppm		✓	X		1	0.317
LCS: 0.04 ppm		✓	X		5	0.313
01-808-05		✓	X		1	0.317
02-012-02		✓	X		5	0.104
01-798-01		✓	X		1 X 5	0.027
02-014-01 Ref		✓	X	1/2	1	0.281
MS(0.2) -02		✓	X			0.446
SD(0.2) -03		✓	X			0.441
-04		✓	X			0.390
-05		✓	X			0.368
-06		✓	X			0.445
-07		✓	X			0.255
02 032-02		✓	X		5	0.054
02-044-01		✓	X		↓	0.008
-02		✓	X		1	0.381
-03		✓	X			0.349
DUP 808-05		✓	X		↓	0.312
STD (0.0198)		✓	X		5	0.152
STD (0.198)		✓	X		1	0.316
Duplicate:						
MS: (ppm)						
MSD: (ppm)						
CCV high: (ppm)	50	✓	X		1	0.313
CCV (low): (ppm)	↓	✓	X		5	0.155

ANALYST: [signature]

DATE/TIME: (on) 2/3/12/0810
(off) 0950
(color) 1330

DCN#89808

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG388634 **Analyst:** JBK
Analyte: CYANIDE **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.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388775
File ID: 1V.1202031330-19
CCV ID: WG388775-01
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/03/2012
Run Time: 13:30
Analyst: JBK
Cal ID: UV-120 - 03-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.198	0.198	1.58	0.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 02/03/2012 14:31

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388775
File ID: 1V.1202031330-20
CCV ID: WG388775-02
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/03/2012
Run Time: 13:30
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 14:31

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG388775
File ID: 1V.1202031330-21
CCV ID: WG388775-03
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 02/03/2012
Run Time: 13:30
Analyst: JBK
Cal ID: UV-120 - 03-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0198	0.0195	7.68	1.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 02/03/2012 14:31

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG388775
File ID: 1V.1202031330-22
CCV ID: WG388775-04
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 02/03/2012
Run Time: 13:30
Analyst: JBK
Cal ID: UV-120 - 03-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.198	0.201	1.60	1.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 02/03/2012 14:31

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388775
File ID: 1V.1202031330-23
CCV ID: WG388775-05
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/03/2012
Run Time: 13:30
Analyst: JBK
Cal ID: UV-120 - 03-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.198	0.199	1.58	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 14:31

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388775
File ID: 1V.1202031330-24
CCV ID: WG388775-06
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/03/2012
Run Time: 13:30
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 14:31

[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 **Analyst:** DLP
Analyte: CYANIDE (TOTAL) **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]

WORKGROUP: WG388947

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): 118561 TRUE VALUE: 990
Daily dilution: 5(990)/1000 = 19.98
10(19.98)/100 = 1.98
5(1.98)/100 = 0.198
5(1.98)/100 = ~~0.396~~ 0.0198

LCS STOCK: 118662 TRUE VALUE: 1000
Daily dilution: 5(1000)/1000 = 20
10(20)/100 = 2
5(2)/100 = 0.2
1(2)/100 = 0.04

curve reference: 2/08/12
Spec: UV-120-1V

SPIKE: (daily dilution) 5(2)/100 = 0.2
(same stock as LCS)

Sample	Volume mL/grams	pH>12	Sulfide Presence	Dilution	Cell Size (cm)	Absorbance λ = 578 nm
CCV (high): 0.318 ppm	50				1	0.318
0.0198 CCV (low): ~~0.0396~~ ppm	50				5	0.151
Blank	50	✓	NO		1	0.005
LCS: 0.2 ppm	50	✓	NO		1	0.317
LCS: 0.04 ppm	50	✓	NO		5	0.316
02-068-01	50	✓	NO		1	0.020
01-798-01	50	✓	NO		1	0.003
Ref 02-016-01	50	✓	NO		1,5	0.072, 0.334
MS 02	50	✓	NO		1	0.389
MSD 03	50	✓	NO		1	0.394
04	50	✓	NO		1,5	0.064, 0.254
05	50	✓	NO		1	0.069, 0.313
06	50	✓	NO		1	0.069, 0.31
-07	50	✓	NO		1	0.048, 0.237
02-044-01	50	✓	NO		5	0.007
-02	50	✓	NO		1,5	0.075, 0.357
-03	50	✓	NO		1	0.080, 0.379
* 02-091-01	50	✓	NO		5	0.010
02-146-01	50	✓	NO		5	0.190
from wg 388944 std (0.5) (.02)	50	✓	NO		1	0.313
std (0.04) (.02)	50	✓	NO		5	0.153
Duplicate: 02-068-01	50	✓	NO		5	0.023
MS: (ppm)						
MSD: (ppm)						
CCV high: (ppm) 0.318	50				1	0.316
0.0198 CCV (low): (ppm) ~~0.0396~~	50				5	0.154

ANALYST: Quantity Paige DATE/TIME: (on) 02-07-12/1000
(off) 02-07-12/1130
(color)

* Sample has been Frozen. 2/8/12 1040

DCN#89859

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG388947 **Analyst:** JBK
Analyte: CYANIDE **Date:** 02/08/2012

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG388947-01	50	50	0.00500	7.985	-0.0006058	0.00070207	0.00070207	1	mg/L
WG388947-02	50	50	0.317	1.629	-0.002693	0.19631	0.19631	1	mg/L
WG388947-03	50	50	0.316	7.985	-0.0006058	0.039652	0.039652	1	mg/L
L12020068-01	50	50	0.0200	7.985	-0.0006058	0.0025807	ND	1	mg/L
WG388947-04	50	50	0.0200	7.985	-0.0006058	0.0025807	0.0025807	1	mg/L
L12010798-01	50	50	0.00300	7.985	-0.0006058	0.00045159	ND	1	mg/L
L12020016-01	50	50	0.334	7.985	-0.0006058	0.041906	0.041906	1	mg/L
WG388947-05	50	50	0.334	7.985	-0.0006058	0.041906	0.041906	1	mg/L
L12020016-02	50	50	0.389	1.629	-0.002693	0.24052	0.24052	1	mg/L
WG388947-07	50	50	0.389	1.629	-0.002693	0.24052	0.24052	1	mg/L
L12020016-03	50	50	0.394	1.629	-0.002693	0.24359	0.24359	1	mg/L
WG388947-08	50	50	0.394	1.629	-0.002693	0.24359	0.24359	1	mg/L
L12020016-04	50	50	0.284	7.985	-0.0006058	0.035644	0.035644	1	mg/L
L12020016-05	50	50	0.313	7.985	-0.0006058	0.039276	0.039276	1	mg/L
L12020016-06	50	50	0.311	7.985	-0.0006058	0.039026	0.039026	1	mg/L
L12020016-07	50	50	0.237	7.985	-0.0006058	0.029758	0.029758	1	mg/L
L12020044-01	50	50	0.00700	7.985	-0.0006058	0.00095256	ND	1	mg/L
L12020044-02	50	50	0.357	7.985	-0.0006058	0.044787	0.044787	1	mg/L
L12020044-03	50	50	0.379	7.985	-0.0006058	0.047542	0.047542	1	mg/L
L12020091-01	50	50	0.0100	7.985	-0.0006058	0.0013283	ND	1	mg/L
L12020146-01	50	50	0.190	7.985	-0.0006058	0.023872	0.023872	1	mg/L
WG388947-06	50	50	0.0230	7.985	-0.0006058	0.0029564	0.0029564	1	mg/L

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated 02/08/2012 14:40

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG389097
File ID: 1V.1202080840-20
CCV ID: WG389097-05
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 02/08/2012
Run Time: 08:40
Analyst: JBK
Cal ID: UV-120 - 08-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.2	0.194	1.57	3.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 02/08/2012 14:42

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG389097
File ID: 1V.1202080840-21
CCV ID: WG389097-06
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 02/08/2012
Run Time: 08:40
Analyst: JBK
Cal ID: UV-120 - 08-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.02	0.0192	7.65	4.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 02/08/2012 14:42

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG389097
File ID: 1V.1202080840-02
CCV ID: WG389097-02
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/08/2012
Run Time: 08:40
Analyst: JBK
Cal ID: UV-120 - 08-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0198	0.0190	7.63	4.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 02/08/2012 14:35

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG389097
File ID: 1V.1202080840-01
CCV ID: WG389097-01
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/08/2012
Run Time: 08:40
Analyst: JBK
Cal ID: UV-120 - 08-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.198	0.197	1.61	0.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 02/08/2012 14:35

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG389097
File ID: 1V.1202080840-23
CCV ID: WG389097-07
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/08/2012
Run Time: 08:40
Analyst: JBK
Cal ID: UV-120 - 08-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.198	0.196	1.60	1.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 02/08/2012 14:35

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG389097
File ID: 1V.1202080840-24
CCV ID: WG389097-08
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 02/08/2012
Run Time: 08:40
Analyst: JBK
Cal ID: UV-120 - 08-FEB-12

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0198	0.0194	7.78	2.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 02/08/2012 14:35

[redacted]

2.2.5 Conductivity Data

2.2.5.1 Summary Data

Login Number: L12010798
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: 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: 42091
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	YSI-32
Client ID:	MPL22-0112-1	**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:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	32.1202061430-06
Sample Tag:		**Units:**	umhos/cm		

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		242		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: L12010798

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
MPL22-0112-1	01	01/30/12							28		02/06/12	7.1	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2304418
Report generated 02/10/2012 13:40

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
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	
MPL22-0112-1	L12010798-01	32.1202061430-06	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: 2304419
Report generated 02/10/2012 13:40

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 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: 2304420
10-FEB-2012 13:40

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 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: 2304421
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	ms	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: L12010798
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: 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: 42093
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL22-0112-1	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	02/01/2012 08:52
Workgroup #:	WG388451	**Analyst:**	DIH	**Run Date:**	02/01/2012 09:08
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	SC120201001.024
Sample Tag:	01	**Units:**	mg/L		

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

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

Certificate of Analysis

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: 01-FEB-2012
Analyst: DIH
Analyst: NA
Method: NH3
Instrument: SC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388451 WG388452

Calibration/Linearity	2/1/2012
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 10:36:57

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 350.1 AAB#: WG388451

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12							28		02/01/12	1.9	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2296647
Report generated 02/02/2012 09:27

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
Blank File ID: SC120201001.009
Prep Date: 02/01/12 08:54
Analyzed Date: 02/01/12 08:54
Analyst: DIH

Work Group: WG388451
Blank Sample ID: WG388451-01
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	WG388451-02	SC120201001.010	02/01/12 08:55	01
MPL22-0112-1	L12010798-01	SC120201001.024	02/01/12 09:08	01
DUP	WG388451-04	SC120201001.027	02/01/12 09:10	01

Report Name: BLANK_SUMMARY
PDF File ID: 2296648
Report generated 02/02/2012 09:27

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 Prep Date: 02/01/12 08:54 Sample ID: WG388451-01
Instrument ID: SMARTCHEM Run Date: 02/01/12 08:54 Prep Method: 350.1
File ID: SC120201001.009 Analyst: DIH Method: 350.1
Workgroup (AAB#): WG388451 Matrix: Water Units: mg/L
Contract #: Cal ID: SMARTC-01-FEB-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: 2296649
02-FEB-2012 09:27

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Run Date: 02/01/2012 Sample ID: WG388451-02
Instrument ID: SMARTCHEM Run Time: 08:55 Prep Method: 350.1
File ID: SC120201001.010 Analyst: DIH Method: 350.1
Workgroup (AAB#): WG388451 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD49779 Cal ID: SMARTC-01-FEB-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Nitrogen, Ammonia	2.00	1.89	94.5	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 2296650
Report generated: 02/02/2012 09:27

2.2.6.3 Raw Data

WORKGROUP: WG388451

388452

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 # 201202 01001
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	01-686-01			
1-5	02			
1-6	03			
1-7	01-688-02			
1-8	03			
1-9	04			
1-10	01-689-01			
1-11	02			
1-12	03			
1-13	01-808-02			
1-14	04	~~1/200~~ 1/100		
1-15	01-798-01			
1-16	01-799-01			
1-17	01-800-01			
1-18	DUP 686-03			
1-19	MS ~~798-01~~ 800-01			
1-20	MS 686-03			
1-21	BLK AA			
1-22	LCS AA			
2-1	LCSDUP			
2-2	01-713-35			
2-3	37			

Analyte		1	2	3
Position				
2-4	01-713-39			
2-5	01-821-01			
2-6	DUP 01			
2-7	MS 04			
2-8	MSD 05			
2-9	10			
2-10	13			
2-11	16			
2-12	19			
2-13	22			
2-14	25			
2-15				
2-16 R	01-880-04	1/50		
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#89784

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
- ☐ Ammonia — EPA 350.1/SM 4500-NH3 B
- ☐ TKN — EPA 351.2
- ☐ Phos — EPA 365.4

Analyte	NH3		Reagents
SOP & Revision	K3501 R19		Rbt16729
Curve Stock (SC made)	std49628		Rbt16833
Curve ID (user made)			Rbt16835
ICV	std49784		
CCV	std49630		
LCS	std49857		
MS	std49779		
Dilution	0.1/10(100)=1.0		

Comments: _____

Analyst: [signature] Date: 2/1/12

DCN#89784

AMMONIA DISTILLATION LOG

SOP K3501 Revision # 17

LCS: Std 49779 10(100)/100=10
DAILY DIL. 10(10)/50=2.0

SPIKE: Std 49779 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 16894

SAMPLE	VOLUME DISTILLED (mL)	CHLORINE PRESENT?	pH ADJUSTED 9.5 ± 0.2	COMMENTS
BLANK ✓	50	NO	yes	
LCS(2.0) ✓	50	NO	yes	
01-1688-02 ✓	50	No	yes	
03 ✓	50	NO	yes	
04 ✓	50	No	yes	
01-1686-01 ✓	50	NO	yes	
02 ✓	50	NO	yes	
03 ✓	50	NO	yes	
01-1689-01 ✓	50	NO	yes	
02 ✓	50	NO	yes	
03 ✓	50	NO	yes	
01-799-01 ✓	50	NO	yes	
01-800-01 ✓	50	NO	yes	
01-798-01 ✓	50	NO	yes	
01-808-02 ✓	50	yes	yes	
01-808-04 ✓	50	NO	yes	
01-800-01 MS	50	NO	yes	
DUP 01-1686-03	50	NO	yes	
~~DUP 01-1688-03~~	~~50~~			
~~MS 01-799-01~~	~~50~~	~~NO~~	~~yes~~	
MS ~~01-1688-03~~ 01-1686-03	50	NO	yes	

Analyst: [signature] Date/Time: 1/31/12 @ 1330

*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	0.0569	0.00		8:45:03 AM
DIL-1	RBL	0.000	0.0560	0.00		8:45:21 AM
DIL-1	RBL	0.000	0.0554	0.00		8:46:51 AM
DIL-1	Std-1	0.000	0.0003	0.00		8:47:09 AM
SR5-1	Std-2	0.030	0.0091	0.00		8:48:39 AM
SR5-2	Std-3	0.094	0.0202	0.00		8:48:57 AM
SR5-3	Std-4	0.600	0.1379	0.00		8:50:27 AM
SR5-4	Std-5	1.050	0.2418	0.00		8:50:45 AM
SR5-5	Std-6	2.100	0.4965	0.00		8:52:15 AM
ST-1	Std-7	3.000	0.6933	0.00		8:52:33 AM
1	ICV 1.5	1.514	0.3522	0.00		8:54:03 AM
2	WG388451-01 BLK	-0.032	-0.0075	0.00	INV,><,LL	8:54:21 AM
3	WG388451-02 LCS	1.890	0.4396	0.00		8:55:51 AM
4	L12010686-01	-0.035	-0.0080	0.00	INV,><,LL	8:56:09 AM
5	L12010686-02	-0.018	-0.0042	0.00	INV,><,LL	8:57:39 AM
6	L12010686-03	-0.036	-0.0083	0.00	INV,><,LL	8:57:57 AM
7	L12010688-02	-0.009	-0.0020	0.00	INV,><,LL	8:59:27 AM
8	L12010688-03	-0.002	-0.0004	0.00	INV,><,LL	8:59:45 AM
9	L12010688-04	-0.023	-0.0054	0.00	INV,><,LL	9:01:15 AM
10	L12010689-01	-0.014	-0.0032	0.00	INV,><,LL	9:01:33 AM
ST-2	CCV (1.5 mg/L)	1.451	0.3376	96.75		9:03:03 AM
ST-3	CCB (0 mg/L)	-0.020	-0.0045	0.00	INV,><,LL	9:03:21 AM
11	L12010689-02	0.038	0.0089	0.00		9:04:51 AM
12	L12010689-03	0.027	0.0064	0.00		9:05:09 AM
13	L12010808-02	4.931 X	1.1469	0.00	><,LH	9:06:39 AM
14	L12010808-04 (100)	0.837 X	0.1947	0.00		9:06:57 AM
15	L12010798-01	-0.025	-0.0057	0.00	INV,><,LL	9:08:28 AM
16	L12010799-01	0.134	0.0313	0.00		9:08:45 AM
17	L12010800-01	0.036	0.0085	0.00		9:10:16 AM
18	WG388451-04 DUP	0.944	0.2196	0.00		9:10:34 AM
19	WG388451-07 MS	0.895	0.2081	0.00		9:12:04 AM
20	WG388451-05 MS	0.135	0.0315	0.00		9:12:22 AM

Report Date :02/01/2012 **Run Date :2/1/2012** **Operator : WESTCO** **Plan # :20120201001**

Plan Description : NH3-A-DIH/2/1/2012

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)	1.426	0.3316	95.03		9:13:52 AM
ST-3	CCB (0 mg/L)	-0.018	-0.0041	0.00	INV,><,LL	9:14:10 AM
21	WG388452-01 BLK	0.008	0.0019	0.00		9:15:40 AM
22	WG388452-02 LCS	2.006	0.4666	0.00		9:15:58 AM
23	WG388452-03 LCSDUP	1.963	0.4567	0.00		9:17:28 AM
24	L12010713-35	-0.057	-0.0132	0.00	INV,><,LL	9:17:46 AM
25	L12010713-37	-0.062	-0.0144	0.00	INV,><,LL	9:19:16 AM
26	L12010713-39	-0.056	-0.0129	0.00	INV,><,LL	9:19:34 AM
27	L12010821-01	-0.059	-0.0137	0.00	INV,><,LL	9:21:04 AM
28	WG388452-05 DUP	-0.059	-0.0136	0.00	INV,><,LL	9:21:22 AM
29	L12010821-04 MS	0.743	0.1729	0.00		9:22:52 AM
30	L12010821-07 MSD	0.711	0.1653	0.00		9:23:10 AM
ST-2	CCV (1.5 mg/L)	1.426	0.3317	95.06		9:24:40 AM
ST-3	CCB (0 mg/L)	-0.022	-0.0051	0.00	INV,><,LL	9:24:58 AM
31	L12010821-10	-0.057	-0.0132	0.00	INV,><,LL	9:26:28 AM
32	L12010821-13	-0.059	-0.0137	0.00	INV,><,LL	9:26:46 AM
33	L12010821-16	-0.062	-0.0144	0.00	INV,><,LL	9:28:16 AM
34	L12010821-19	-0.057	-0.0133	0.00	INV,><,LL	9:28:34 AM
35	L12010821-22	-0.049	-0.0114	0.00	INV,><,LL	9:30:04 AM
36	L12010821-25	-0.054	-0.0126	0.00	INV,><,LL	9:30:22 AM
37	ID 37	-0.063	-0.0145	0.00	INV,><,LL	9:31:52 AM
38	ID 38 01-808-04 (50)	1.721	0.4003	0.00		9:32:10 AM
39	ID 39	-0.066	-0.0152	0.00	INV,><,LL	9:33:40 AM
40	ID 40	-0.063	-0.0147	0.00	INV,><,LL	9:33:58 AM
ST-2	CCV (1.5 mg/L)	1.444	0.3360	96.29		9:35:28 AM
ST-3	CCB (0 mg/L)	-0.019	-0.0044	0.00	INV,><,LL	9:35:46 AM
13-[1/2]	L12010808-02	5.433	0.6319	0.00	LH	9:47:56 AM
ST-2	CCV (1.5 mg/L)	1.464	0.3406	97.61		9:47:56 AM
ST-3	CCB (0 mg/L)	-0.009	-0.0021	0.00	INV,><,LL	9:49:26 AM

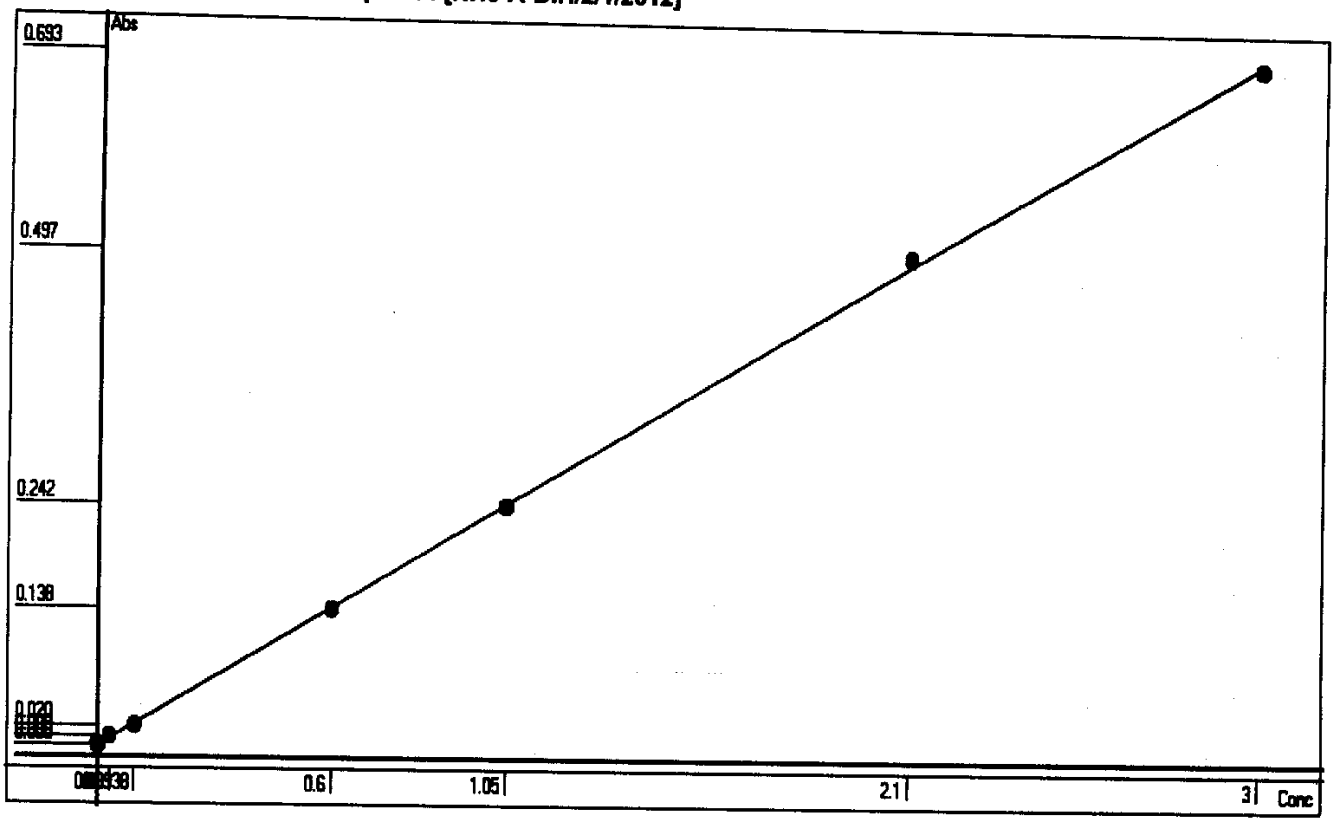
Report Date :02/01/2012 **Run Date :2/1/2012** **Operator : WESTCO** **Plan # :20120201001**

Plan Description : NH3-A-DIH/2/1/2012

Calibrant Report - WNH3 -

Calib Lot #:010104 Exp Date:6/17/2020 User:Westco Scientific

Plan # : 20120201001 Description : [NH3-A-DIH/2/1/2012]



Point	OD	Conc	Recalc Conc	% Error
1	0.0003	0	0.0011	0.11
2	0.0091	0.03	0.0389	29.67
3	0.0202	0.0938	0.0866	-7.68
4	0.1379	0.6	0.5927	-1.22
5	0.2418	1.05	1.0394	-1.01
6	0.4965	2.1	2.1345	1.64
7	0.6933	3	2.9806	-0.65

Conc= +4.2994*Abso -0.0002 R^2=0.9998

RBL
0.0557
0

Report Date 2/1/2012 Run Date 2/1/2012

2.2.7 Nitrate Data

2.2.7.1 Summary Data

Login Number: L12010798
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.

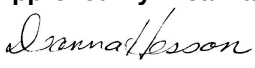
Duplicates: All acceptance criteria were met.

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: 42094
Approved By: Deanna Hesson



Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL22-0112-1	**Prep Method:**	353.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	353.2	**Cal Date:**	02/03/2012 13:00
Workgroup #:	WG388788	**Analyst:**	DIH	**Run Date:**	02/06/2012 09:16
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	SC12020614494101
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		1.09		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: 06-FEB-2012
Analyst: DIH
Analyst: NA
Method: NO3
Instrument: SC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388788 WG388789

Calibration/Linearity	2/6/2012
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:
06-FEB-2012

Secondary Reviewer:
06-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-06-2012 15:50:38

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 353.2 AAB#: WG388788

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12							28		02/06/12	6.9	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2299620
Report generated 02/06/2012 15:36

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
Blank File ID: SC12020614480301
Prep Date: 02/06/12 09:16
Analyzed Date: 02/06/12 09:16
Analyst: DIH

Work Group: WG388788
Blank Sample ID: WG388788-01
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
MPL22-0112-1	L12010798-01	SC12020614494101	02/06/12 09:16	
LCS	WG388788-02	SC12020614481601	02/06/12 09:16	
DUP	WG388788-05	SC12020614484301	02/06/12 09:16	
LCS2	WG388788-03	SC12020614482401	02/06/12 09:16	

Report Name: BLANK_SUMMARY
PDF File ID: 2299621
Report generated 02/06/2012 15:36

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 Prep Date: 02/06/12 09:16 Sample ID: WG388788-01
Instrument ID: SMARTCHEM Run Date: 02/06/12 09:16 Prep Method: 353.2
File ID: SC12020614480301 Analyst: DIH Method: 353.2
Workgroup (AAB#): WG388788 Matrix: Water Units: mg/L
Contract #: Cal ID: SMARTC-03-FEB-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: 2299622
06-FEB-2012 15:36

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Analyst: DIH Prep Method: 353.2
Instrument ID: SMARTCHEM Matrix: Water Method: 353.2
Workgroup (AAB#): WG388788 Units: mg/L
QC Key: DOD4 Lot #: STD49945

Sample ID: WG388788-02 LCS File ID: SC12020614481601 Run Date: 02/06/2012 09:16
Sample ID: WG388788-03 LCS2 File ID: SC12020614482401 Run Date: 02/06/2012 09:16

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Nitrate-Nitrite (as N)	1.00	0.975	97.5	1.00	1.01	101	3.92	90 - 110	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2299623
Report generated: 02/06/2012 15:36

2.2.7.3 Raw Data

WORKGROUP: WG388788

388789

SMARTCHEM RUN LOG

Daily Check

- [ ] 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 # 20120206001
2) **Workgroup** _____
Plan # _____
3) **Workgroup** _____
Plan # _____

	Analyte	1	2	3
		NO3		
		Dilution		
SC Prepared Curve				
Position				
1-1	ICV 1.5			
1-2	BLK			
1-3	LCS 1			
1-4	LCSDUP			
1-5	NO2 1			
1-6	02-074-01	1/75	*	
1-7	02-095-01		*	
1-8	02-097-02	1/15	*	
1-9	02-108-01			
1-10	02-043-01			
1-11	DUP 01			
1-12	MS 03			
1-13	MSD 05			
1-14	07			
1-15	09			
1-16	11			
1-17	13			
1-18	01-798-01			
1-19	02-016-01		AUTO	1/2 ✓
1-20	MS 02		"	1/2 ✓
1-21	MSD 03		"	1/2 ✓
1-22	04			✓
2-1	05			
2-2	06			
2-3	07			✓

Position	Analyte	1	2	3
2-4	01-044-01			
2-5	02		Auto	1/2
2-6	03		"	1/2
2-7	01-091-01			
2-8	BLK			
2-9	LCS			
2-10	LCSDUP			
2-11	02-104-01	1/5	*	color
2-12	02	1/5	*	↓
2-13	03	1/5	*	↓
2-14 MPZ4	02-146-01			
2-15	DUP			
2-16	MS ↓			
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

* These samples were partially frozen from log-in walk in cooler going to -8 for 12 hours.

DCN#89835

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
- [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		Rot 16628
Curve Stock (SC made)	dm 2/14	~~std49628~~	std49809	Rot 16820
Curve ID (user made)	NO2		std49488	
ICV	dm 2/14	~~std49784~~	std49811	
CCV		~~std49630~~	std49810	
LCS		std49945		
MS		std48249 Dilution 0.1/5(25)=0.5		

Comments: _____

Analyst: Donna Olsson Date: 2/6/12

DCN#89835

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	0.0179	0.00			9:04:21 AM
DIL-1	RBL	0.000	0.0189	0.00			9:05:33 AM
DIL-1	RBL	0.000	0.0171	0.00			9:06:45 AM
DIL-1	RBL	0.000	0.0165	0.00			9:07:57 AM
DIL-1	Std-1	0.000	-0.0022	0.00	INV		9:09:09 AM
SR5-1	Std-2	0.040	0.0105	0.00			9:10:21 AM
SR5-2	Std-3	0.100	0.0328	0.00			9:11:33 AM
SR5-3	Std-4	0.500	0.1647	0.00			9:12:45 AM
SR5-4	Std-5	1.000	0.3283	0.00			9:13:58 AM
ST-1	Std-6	2.000	0.6544	0.00			9:15:10 AM
1	ICV 1.5	1.577	0.5167	0.00			9:16:22 AM
2	WG388788-01 BLK	0.000	-0.0011	0.00	INV,LL		9:17:34 AM
3	WG388788-02 LCS	0.975	0.3188	0.00			9:18:46 AM
4	WG388788-03 LCSDUP	1.014	0.3318	0.00			9:19:58 AM
5	NO2	0.992	0.3245	0.00		NO2	9:21:10 AM
6	L12020074-01 (75)	1.078	0.3527	0.00		0.048	9:22:22 AM
7	L12020095-01	0.145	0.0464	0.00		0	9:23:34 AM
8	L120120097-02 (15)	0.808	0.2641	0.00		0.187	9:24:46 AM
9	L12020108-01	0.300	0.0975	0.00		0	9:25:58 AM
10	L12020043-01	0.046	0.0140	0.00			9:27:10 AM
ST-2	CCV (1 mg/L)	0.982	0.3211	98.15			9:28:22 AM
ST-3	CCB (0 mg/L)	-0.008	-0.0036	0.00	INV,><,LL		9:29:34 AM
11	DUP 01	0.039	0.0117	0.00			9:30:46 AM
12	L12020043-03 MS	0.412	0.1341	0.00			9:31:58 AM
13	L12020043-05 MSD	0.448	0.1460	0.00			9:33:10 AM
14	L12020043-07	0.014	0.0036	0.00			9:34:22 AM
15	L12020043-09	0.015	0.0039	0.00			9:35:34 AM
16	L12020043-11	0.082	0.0257	0.00			9:36:46 AM
17	L12020043-13	0.015	0.0039	0.00			9:37:58 AM
18	L12010798-01	1.086	0.3553	0.00			9:39:10 AM
19	L12020016-01	8.941 X	2.9336	0.00	EPL,><,LH		9:40:22 AM
20	L12020016-02 MS	8.873 X	2.9112	0.00	EPL,><,LH		9:41:34 AM

Report Date :02/06/2012 **Run Date :2/6/2012** **Operator : WESTCO** **Plan # :20120206001**

Plan Description : NO3-A-DIH/2/6/2012

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)	0.966	0.3160	96.59		9:42:46 AM
ST-3	CCB (0 mg/L)	-0.003	-0.0019	0.00	INV,LL	9:43:58 AM
21	L12020016-03 MSD	8.881 X	2.9139	0.00	EPL,><,LH	9:45:10 AM
22	L12020016-04	6.685 X	2.1932	0.00	EPL,><,LH	9:46:22 AM
23	L12020016-05	7.626 X	2.5018	0.00	EPL,><,LH	9:47:34 AM
24	L12020016-06	7.285 X	2.3900	0.00	><,LH	9:48:46 AM
25	L12020016-07	5.392 X	1.7686	0.00	><,LH	9:49:58 AM
26	L12020044-01	2.426 X	0.7953	0.00	><,LH	9:51:10 AM
27	L12020044-02	8.408 X	2.7587	0.00	EPL,><,LH	9:52:22 AM
28	L12020044-03	8.423 X	2.7635	0.00	EPL,><,LH	9:53:34 AM
29	L12020091-01	1.545	0.5061	0.00		9:54:46 AM
30	WG388789-01 BLK	-0.002	-0.0018	0.00	INV,LL	9:55:58 AM
ST-2	CCV (1 mg/L)	0.971	0.3178	97.14		9:57:10 AM
ST-3	CCB (0 mg/L)	0.005	0.0007	0.00		9:58:22 AM
31	WG388789-02 LCS	1.048	0.3428	0.00		9:59:35 AM
32	WG389789-03 LCSDUP	1.012	0.3310	0.00		10:00:46 AM
33	L12020104-01 (5)	0.016	0.0042	0.00		10:01:59 AM
34	L12020104-02 (5)	0.021	0.0058	0.00		10:03:11 AM
35	L12020104-03 (5)	0.028	0.0081	0.00		10:04:22 AM
36	ID 36 02-146-01	4.606 X	1.5108	0.00	><,LH	10:05:35 AM
37	DUP	4.497 X	1.4749	0.00	><,LH	10:06:47 AM
38	MS	5.002 X	1.6408	0.00	><,LH	10:07:59 AM
39	ID 39	1.012	0.3311	0.00		10:09:11 AM
40	ID 40	1.046	0.3421	0.00		10:10:23 AM
ST-2	CCV (1 mg/L)	0.977	0.3196	97.69		10:11:35 AM
ST-3	CCB (0 mg/L)	-0.006	-0.0029	0.00	INV,><,LL	10:12:47 AM
19-[1/4]	L12020016-01 (2)	4.572	0.3741	0.00	LH	10:21:57 AM
20-[1/4]	L12020016-02 MS (2)	4.866	0.3982	0.00	LH	10:24:03 AM
21-[1/4]	L12020016-03 MSD (2)	4.495	0.3678	0.00	LH	10:26:09 AM
22-[1/4]	L12020016-04	6.769	0.5544	0.00	LH	10:28:16 AM
23-[1/4]	L12020016-05	8.334 X	0.6828	0.00	><,LH	10:30:22 AM
24-[1/4]	L12020016-06	8.317 X	0.6814	0.00	><,LH	10:32:28 AM

Report Date :02/06/2012 **Run Date :2/6/2012** **Operator : WESTCO** **Plan # :20120206001**

Plan Description : NO3-A-DIH/2/6/2012

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
25-[1/4]	L12020016-07	5.847	0.4787	0.00	LH	10:34:33 AM
26-[1/4]	L12020044-01	2.550	0.2082	0.00	LH	10:36:39 AM
27-[1/4]	L12020044-02 (2)	4.351	0.3560	0.00	LH	10:38:45 AM
28-[1/4]	L12020044-03 (2)	4.176	0.3416	0.00	LH	10:40:51 AM
ST-2	CCV (1 mg/L)	0.957	0.3130	95.68		10:41:45 AM
ST-3	CCB (0 mg/L)	-0.003	-0.0021	0.00	INV,LL	10:42:57 AM
36-[1/4]	ID 36 02-146-01	5.053	0.4136	0.00	LH	10:45:21 AM
37-[1/4]	DUP	4.905	0.4014	0.00	LH	10:47:27 AM
38-[1/4]	MS	5.583	0.4571	0.00	LH	10:49:33 AM
ST-2	CCV (1 mg/L)	0.989	0.3236	98.91		10:50:27 AM
ST-3	CCB (0 mg/L)	-0.005	-0.0028	0.00	INV,><,LL	10:51:39 AM
23-[1/8]	L12020016-05	7.818	0.3197	0.00	LH	11:00:49 AM
24-[1/8]	L12020016-06	8.005	0.3274	0.00	LH	11:02:55 AM
ST-2	CCV (1 mg/L)	0.958	0.3133	95.77		11:03:49 AM
ST-3	CCB (0 mg/L)	0.003	-0.0002	0.00	INV	11:05:01 AM

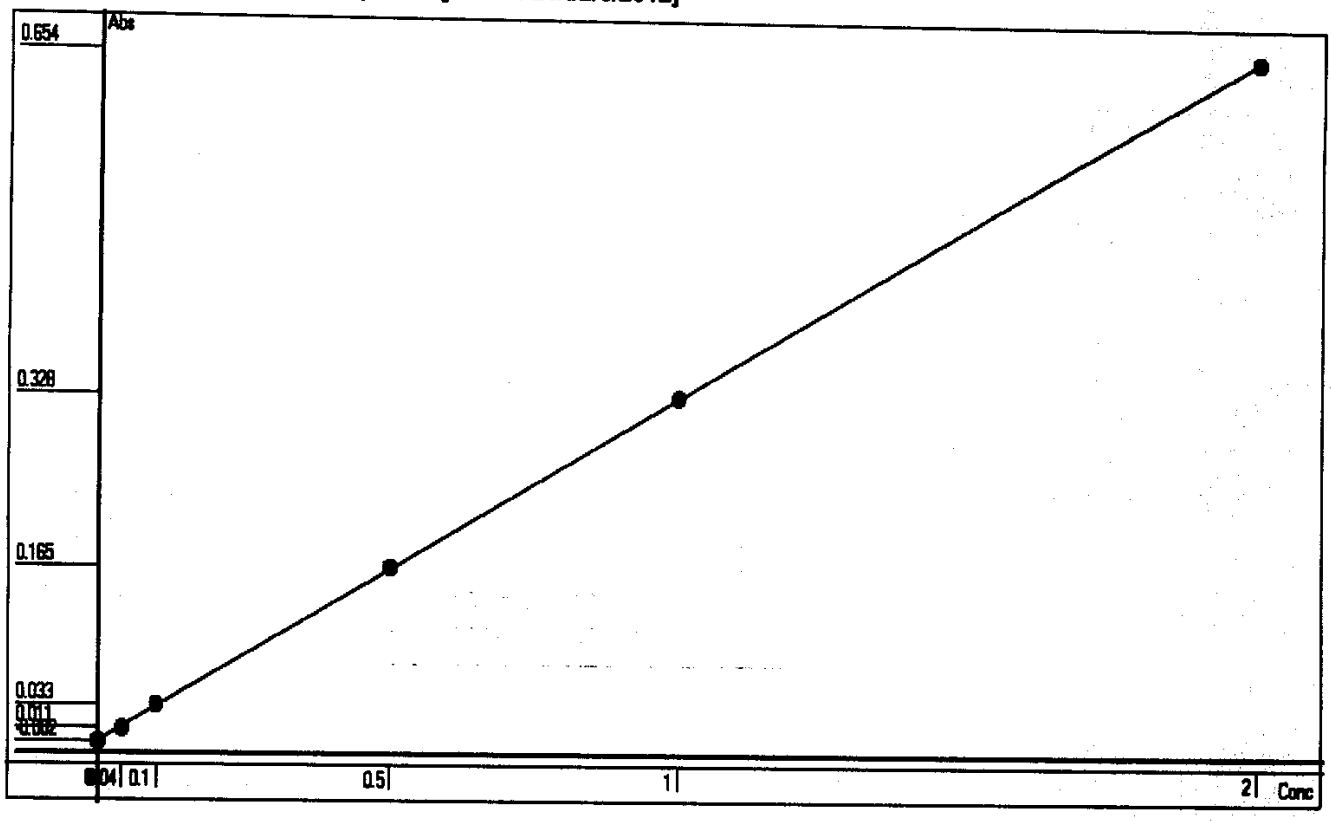
Report Date :02/06/2012 **Run Date :2/6/2012** **Operator : WESTCO** **Plan # :20120206001**

Plan Description : NO3-A-DIH/2/6/2012

Calibrant Report - WNO3 -

Calib Lot #:010104 Exp Date:6/17/2020 User:MICROBAC

Plan # : 20120206001 Description : [NO3-A-DIH/2/6/2012]



Point	OD	Conc	Recalc Conc	% Error
1	-0.0022	0	-0.0035	-0.35
2	0.0105	0.04	0.0352	-12.00
3	0.0328	0.1	0.1031	3.10
4	0.1647	0.5	0.5050	1.00
5	0.3283	1	1.0035	0.35
6	0.6544	2	1.9970	-0.15

Conc= +3.0468*Abso +0.0032 **R^2=1.0000**

RBL
0.0175
0

Report Date 2/6/2012 Run Date 2/6/2012

2.2.8 Orthophosphate Data

2.2.8.1 Summary Data

Login Number: L12010798
Department: Conventionals
Analyst: Holly Reed

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: 42095
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL22-0112-1	**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 #:	WG388496	**Analyst:**	HJR	**Run Date:**	02/01/2012 10:45
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	1V.1202011045-05
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

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: 01-FEB-2012
Analyst: HJR
Analyst: NA
Method: PO4
Instrument: UV-120-1V
Curve Workgroup: WG385747
Runlog ID:
Analytical Workgroups: WG388496

Calibration/Linearity	12/21/11
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	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:
03-FEB-2012

Secondary Reviewer:
03-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-03-2012 14:36:05

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM4500-P-E-20th

AAB#: WG388496

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12							2		02/01/12	2	2	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2298062
Report generated 02/03/2012 13:04

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
Blank File ID: 1V.1202011045-02
Prep Date: 02/01/12 10:45
Analyzed Date: 02/01/12 10:45
Analyst: HJR

Work Group: WG388496
Blank Sample ID: WG388496-01
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	WG388496-02	1V.1202011045-03	02/01/12 10:45	
LCS2	WG388496-03	1V.1202011045-04	02/01/12 10:45	
MPL22-0112-1	L12010798-01	1V.1202011045-05	02/01/12 10:45	
DUP	WG388496-05	1V.1202011045-15	02/01/12 10:45	

Report Name: BLANK_SUMMARY
PDF File ID: 2298063
Report generated 02/03/2012 13:04

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 Prep Date: 02/01/12 10:45 Sample ID: WG388496-01
Instrument ID: UV-120-1V Run Date: 02/01/12 10:45 Prep Method: SM4500-P-E-20th
File ID: 1V.1202011045-02 Analyst: HJR Method: SM4500-P-E-20th
Workgroup (AAB#): WG388496 Matrix: Water Units: mg/L
Contract #: Cal ID: UV-120-30-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: 2298064
03-FEB-2012 13:04

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Analyst: HJR Prep Method: SM4500-P-E-20th
Instrument ID: UV-120-1V Matrix: Water Method: SM4500-P-E-20th
Workgroup (AAB#): WG388496 Units: mg/L
QC Key: DOD4 Lot #: STD49786

Sample ID: WG388496-02 LCS File ID: 1V.1202011045-03 Run Date: 02/01/2012 10:45
Sample ID: WG388496-03 LCS2 File ID: 1V.1202011045-04 Run Date: 02/01/2012 10:45

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Orthophosphate	1.00	0.993	99.3	1.00	0.995	99.5	0.155	90 - 110	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2298065
Report generated: 02/03/2012 13:04

2.2.8.3 Raw Data

W G385 747

Curves

Parameter: PO4

Spectrophotometer: UV-120-IV

Calibration (Curve) standard stock: Std 47333

Concentration: 1000 mg/L

Recipe for preparation of curve standards found in:

SOP: ~~CH3653~~ 12/2/11 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

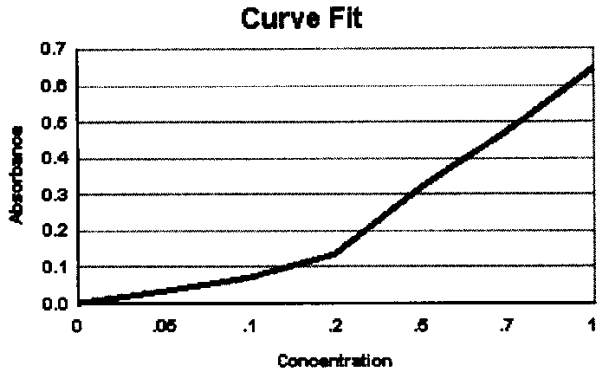
Microbac Laboratories Inc.
INITIAL CALIBRATION

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]

ORTHOPHOSPHATE

EPA 365.2/SM4500-P E
SOP K3653 Rev 13

Color Reagent Chemicals
COA 15323
RGT 16566
RGT 16865
RGT 16866

CCV: Std 49786 0.5
Daily Dilution: 5(10)/50
Daily Dilution: 0.5
Spectrophotometer: UV-120-1V

LCS: Std 49786
Daily Dilution: 5(10)/50
Daily Dilution: 1.0
Curve ID: Wg 385-747 12/21/11

Spike: Std 49786
Daily Dilution: 5(10)/50
Daily Dilution: 0.4

SAMPLE	VOLUME	pH 7 ± 0.2	DILUTION	ABSORBANCE @ 880 nm
CCV: 0.5 mg/L	50	✓		0.325
BLANK	50	✓		0.002
LCS: 1.0 ppm	50	✓		0.648
LCSDUP: 1.0 ppm	50	✓		0.649
01-0798-01	50	✓		0.006
CCV	50	✓		0.327
02-0006-01	50	✓	1/2 1/5	0.289
-02	50	✓	1/2 1/5	0.309
RS 02-0016-01	50	✓		0.294
MS -02	50	✓		0.547
MSD -03	50	✓		0.548
1705 -04	50	✓		0.132
500 -05	50	✓		0.088
1500 -07	50	✓		0.105
	50			
	50			
	50			
	50			
	50			
	50			
	50			
DUP: 01-0798-01	50	✓		0.005
MS: (0.4) 01-0798-01	50	✓		0.254
MSD: ( )	50			
CCV: (0.5)	50	✓		0.325

ANALYST: Dolly Pearl DATE / TIME: 2/1/12 1045

DCN#89789

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG388496
Analyte: ORTHOPHOSPHATE

Analyst: HJR
Date: 02/01/2012

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG388496-01	50	50	0.00200	0.6499	0.002393	-0.00060517	-0.00060517	1	mg/L
WG388496-02	50	50	0.648	0.6499	0.002393	0.99339	0.99339	1	mg/L
WG388496-03	50	50	0.649	0.6499	0.002393	0.99493	0.99493	1	mg/L
L12010798-01	50	50	0.00600	0.6499	0.002393	0.0055496	ND	1	mg/L
WG388496-04	50	50	0.00600	0.6499	0.002393	0.0055496	0.0055496	1	mg/L
L12020006-01	50	50	0.289	0.6499	0.002393	0.44100	2.2050	5	mg/L
L12020006-02	50	50	0.309	0.6499	0.002393	0.47177	2.3589	5	mg/L
L12020016-01	50	50	0.294	0.6499	0.002393	0.44869	0.44869	1	mg/L
WG388496-07	50	50	0.294	0.6499	0.002393	0.44869	0.44869	1	mg/L
L12020016-02	50	50	0.547	0.6499	0.002393	0.83798	0.83798	1	mg/L
WG388496-08	50	50	0.547	0.6499	0.002393	0.83798	0.83798	1	mg/L
L12020016-03	50	50	0.548	0.6499	0.002393	0.83952	0.83952	1	mg/L
WG388496-09	50	50	0.548	0.6499	0.002393	0.83952	0.83952	1	mg/L
L12020016-04	50	50	0.132	0.6499	0.002393	0.19943	0.19943	1	mg/L
L12020016-05	50	50	0.0880	0.6499	0.002393	0.13172	0.13172	1	mg/L
L12020016-07	50	50	0.105	0.6499	0.002393	0.15788	0.15788	1	mg/L
WG388496-05	50	50	0.00500	0.6499	0.002393	0.0040109	0.0040109	1	mg/L
WG388496-06	50	50	0.254	0.6499	0.002393	0.38715	0.38715	1	mg/L

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated 02/03/2012 09:10

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388692
File ID: 1V.1202011045-01
CCV ID: WG388692-01
Units: mg/L
Analyte: ORTHOPHOSPHATE

Instrument ID: UV-120-1V
Run Date: 02/01/2012
Run Time: 10:45
Analyst: HJR
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Orthophosphate	.5	0.496	0.650	0.8	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 02/03/2012 09:08

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388692
File ID: 1V.1202011045-06
CCV ID: WG388692-02
Units: mg/L
Analyte: ORTHOPHOSPHATE

Instrument ID: UV-120-1V
Run Date: 02/01/2012
Run Time: 10:45
Analyst: HJR
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Orthophosphate	.5	0.499	0.654	0.2	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 02/03/2012 09:08

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG388692
File ID: 1V.1202011045-17
CCV ID: WG388692-03
Units: mg/L
Analyte: ORTHOPHOSPHATE

Instrument ID: UV-120-1V
Run Date: 02/01/2012
Run Time: 10:45
Analyst: HJR
Cal ID: UV-120 - 30-JAN-12

Analyte	Expected	Found	RF	%D	Q
Orthophosphate	.5	0.496	0.650	0.8	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 02/03/2012 09:08

[redacted]

2.2.9 Total Dissolved Solids Data

2.2.9.1 Summary Data

Login Number: L12010798
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: 42098
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL22-0112-1	**Prep Method:**	160.1/SM2540C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.1	**Cal Date:**	
Workgroup #:	WG388589	**Analyst:**	HJR	**Run Date:**	02/02/2012 14:40
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	EN.1202021440-04
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		124		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: 02-FEB-2012
Analyst: HJR
Analyst: NA
Method: TDS
Instrument: OVEN
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388589

Calibration/Linearity	2/2/12
Second Source Check	
ICV/CCV (std)	
ICB/CCB	
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	
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:
06-FEB-2012

Secondary Reviewer:
06-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-06-2012 15:18:17

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 160.1 AAB#: WG388589

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12							7		02/02/12	3.1	7	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2299354
Report generated 02/06/2012 13:51

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
Blank File ID: EN.1202021440-01
Prep Date: 02/02/12 14:40
Analyzed Date: 02/02/12 14:40
Analyst: HJR

Work Group: WG388589
Blank Sample ID: WG388589-01
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	WG388589-02	EN.1202021440-02	02/02/12 14:40	
LCS2	WG388589-03	EN.1202021440-03	02/02/12 14:40	
MPL22-0112-1	L12010798-01	EN.1202021440-04	02/02/12 14:40	
DUP	WG388589-05	EN.1202021440-23	02/02/12 14:40	
DUP	WG388589-07	EN.1202021440-24	02/02/12 14:40	

Report Name: BLANK_SUMMARY
PDF File ID: 2299355
Report generated 02/06/2012 13:51

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 Prep Date: 02/02/12 14:40 Sample ID: WG388589-01
Instrument ID: OVEN Run Date: 02/02/12 14:40 Prep Method: 160.1/SM2540C
File ID: EN.1202021440-01 Analyst: HJR Method: 160.1
Workgroup (AAB#): WG388589 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: 2299356
06-FEB-2012 13:51

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Analyst: HJR Prep Method: 160.1/SM2540C
Instrument ID: OVEN Matrix: Water Method: 160.1
Workgroup (AAB#): WG388589 Units: mg/L
QC Key: DOD4 Lot #: STD48299

Sample ID: WG388589-02 LCS File ID: EN.1202021440-02 Run Date: 02/02/2012 14:40
Sample ID: WG388589-03 LCS2 File ID: EN.1202021440-03 Run Date: 02/02/2012 14:40

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Dissolved Solids	500	504	101	500	504	101	0.00	80 - 120	10	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2299357
Report generated: 02/06/2012 13:51

2.2.9.3 Raw Data

WORKGROUP: WG388589

TOTAL DISSOLVED SOLIDS

SOP K1601 Revision #: 12
☑ EPA 160.1/ SM2540C

Oven: ☑ TDS1 ☐ MISC1

Balance: AND GR-202 / Other

LCS: Std48299
Daily Dilution:

Matrix Spike:
Daily Dilution:

TVDS

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				
01-0798-01		50				
01-0799-01		50				
01-0800-01		50				
02-0016-01RS		50				
-02MS		50				
-03MSD		50				
-04		50				
-05		50				
-06		50				
-07		50				
TVDS 02-0014-01		10				
-03		10				
02-0043-01RS		50				
-03MS		50				
-05MSD		50				
-07		50				
-09		50				
-11		50				
Blk? -13		100				
DUP: 01-0798-01		50				
DUP: 02-0014-03		10				

TVDS

ANALYST: Holly J Reed

DATE/TIME: (on) 2/2/12
DATE/TIME: (off)
DATE/TIME: (off)
DATE/TIME: (off)

* Duplicate required on 10% of samples

DCN#89797

Microbac Laboratories Inc.
GRAVIMETRIC REPORT

Workgroup (AAB#): WG388589
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
WG388589-01	P3	100	75.2802	75.2804	75.2804		2.000	2.000	mg/L
WG388589-02	B11	50	51.7532	51.7785	51.7784		504.0	504.0	mg/L
WG388589-03	X	50	61.3568	61.3824	61.382		504.0	504.0	mg/L
L12010798-01	11	50	49.5628	49.569	49.569		124.0	124.0	mg/L
WG388589-04	11	50	49.5628	49.569	49.569		124.0	124.0	mg/L
L12010799-01	C12	50	69.4187	69.428	69.4281		188.0	188.0	mg/L
L12010800-01	F6	50	56.2232	56.2357	56.2356		248.0	248.0	mg/L
L12020016-01	A	50	51.4056	51.4308	51.431		508.0	508.0	mg/L
WG388589-08	A	50	51.4056	51.4308	51.431		508.0	508.0	mg/L
L12020016-02	J1	50	56.9573	57.0069	57.007		994.0	994.0	mg/L
WG388589-09	J1	50	56.9573	57.0069	57.007		994.0	994.0	mg/L
L12020016-03	U	50	57.2589	57.3078	57.3079		980.0	980.0	mg/L
WG388589-10	U	50	57.2589	57.3078	57.3079		980.0	980.0	mg/L
L12020016-04	J4	50	57.989	58.0056	58.0055		330.0	330.0	mg/L
L12020016-05	F4	50	59.9337	59.954	59.9541		408.0	408.0	mg/L
L12020016-06	1	50	55.3592	55.3772	55.3775		366.0	366.0	mg/L
L12020016-07	10	50	54.0594	54.0833	54.0835		482.0	482.0	mg/L
L12020014-01	65	10	20.404	20.5352	20.5351		13110	13110	mg/L
L12020014-03	99	10	21.848	21.9761	21.9761		12810	12810	mg/L
WG388589-06	99	10	21.848	21.9761	21.9761		12810	12810	mg/L
L12020043-01	4X	50	50.6116	50.6807	50.6809		1386	1386	mg/L
WG388589-11	4X	50	50.6116	50.6807	50.6809		1386	1386	mg/L
L12020043-03	C11	50	68.8275	68.9195	68.9195		1840	1840	mg/L
WG388589-12	C11	50	68.8275	68.9195	68.9195		1840	1840	mg/L
L12020043-05	16	50	53.8536	53.9481	53.948		1888	1888	mg/L
WG388589-13	16	50	53.8536	53.9481	53.948		1888	1888	mg/L
L12020043-07	P	50	69.6896	69.7961	69.7962		2132	2132	mg/L
L12020043-09	O	50	67.3234	67.4389	67.439		2312	2312	mg/L
L12020043-11	J	50	59.5741	59.6162	59.6163		844.0	844.0	mg/L
L12020043-13	K9	100	83.7836	83.784	83.784		4.000	ND	mg/L
WG388589-05	A	50	72.6821	72.6881	72.6882		122.0	122.0	mg/L
WG388589-07	13	10	21.9478	22.0758	22.0759		12810	12810	mg/L

L12020043-05	msd=5(5000)/50=500
L12020043-03	ms=5(5000)/50=500
L12020016-03	msd=5(5000)/50=500
WG388589-09	ms=5(5000)/50=500
WG388589-10	msd=5(5000)/50=500
WG388589-12	ms=5(5000)/50=500
WG388589-13	msd=5(5000)/50=500

CONT_GRAV_REPORT - Modified 02/18/2011
PDF ID: 2297345
Report generated: 02/06/2012 11:36

Microbac Laboratories Inc.
GRAVIMETRIC REPORT

L12020016-02	ms=5(5000)/50=500

Analyst:
Balance:
Analyst:
Instrument:

*Duplicate required on 10% of samples

Date/Time (on) :02/02/2012 14:40
Date/Time (off):02/03/2012 15:20
Date/Time (off):02/06/2012 11:30
Date/Time (off):

CONT_GRAV_REPORT - Modified 02/18/2011
PDF ID: 2297345
Report generated: 02/06/2012 11:36

2.2.10 Total Organic Carbon Data

2.2.10.1 Summary Data

Login Number: L12010798
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: 42096
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	MPL22-0112-1	**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 15:12
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	TC02012012.024
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon		1.03		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: L12010798

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
MPL22-0112-1	01	01/30/12							28		02/01/12	2.1	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2298489
Report generated 02/03/2012 15:27

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
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
DUP	WG388455-05	TC02012012.009	02/01/12 11:45	01
MPL22-0112-1	L12010798-01	TC02012012.024	02/01/12 15:12	01

Report Name: BLANK_SUMMARY
PDF File ID: 2298490
Report generated 02/03/2012 15:27

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 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: 2298491
03-FEB-2012 15:27

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 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: 2298492
Report generated: 02/03/2012 15:27

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

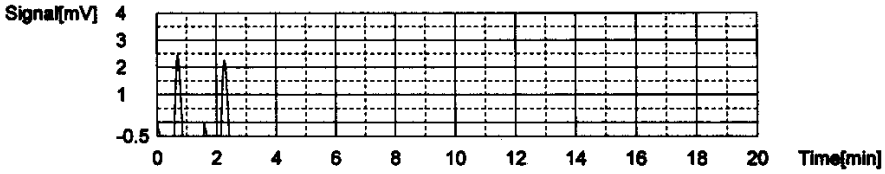
Sample Name: TC CURVE
Sample ID: Untitled
Cal. Curve: TCCURVE-12-06-2011.2011_12_06_08_40_57.cal
Status Completed

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

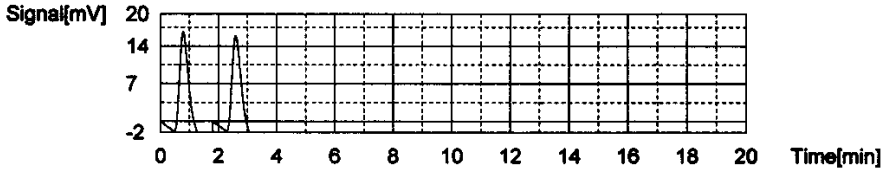
Acid Add. 0.000%
Mean Area 5.716



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

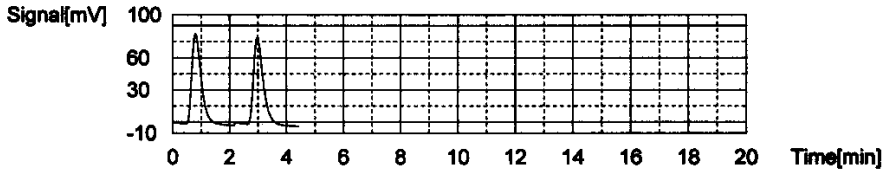
Acid Add. 0.000%
Mean Area 39.48



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

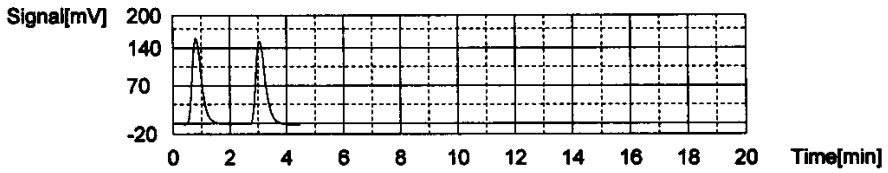
Acid Add. 0.000%
Mean Area 190.6



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

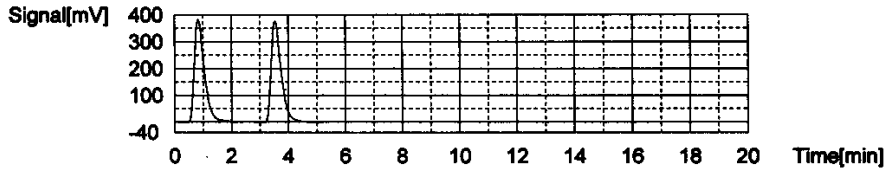
Acid Add. 0.000%
Mean Area 367.4



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

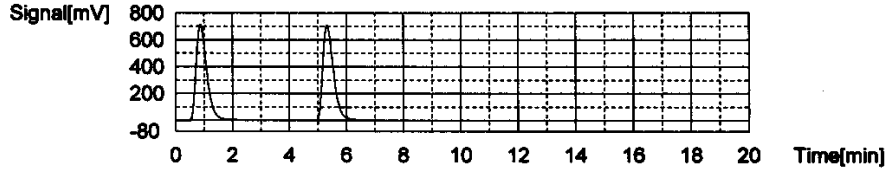
Acid Add. 0.000%
Mean Area 933.4



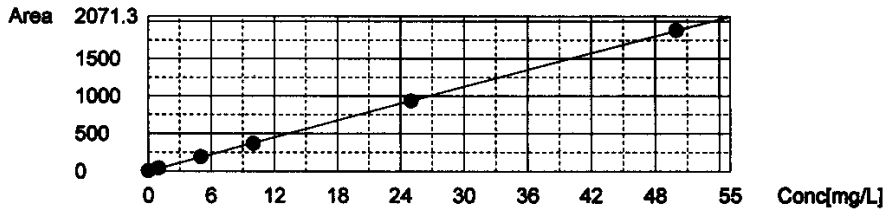
Conc: 50.00mg/L

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

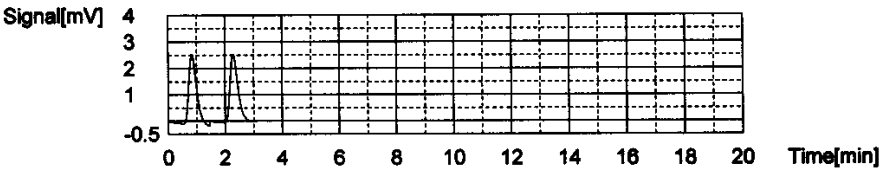
Sample Name: TIC CURVE
Sample ID: Untitled
Cal. Curve: TICCURVE-12-06-2011B.2011_12_06_15_47_44.cal
Status Completed

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

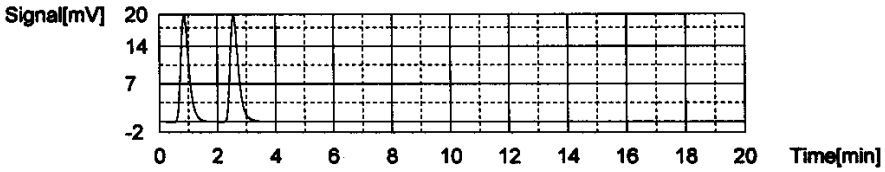
Acid Add. 10.00%
Mean Area 4.883



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

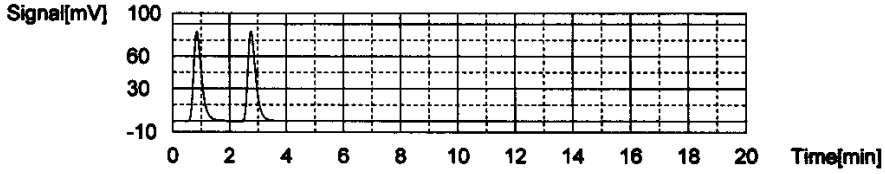
Acid Add. 10.00%
Mean Area 38.90



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

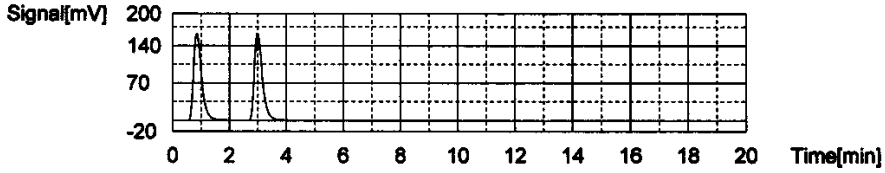
Acid Add. 10.00%
Mean Area 161.3



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

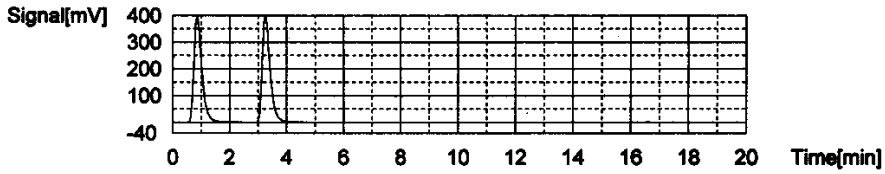
Acid Add. 10.00%
Mean Area 318.9



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

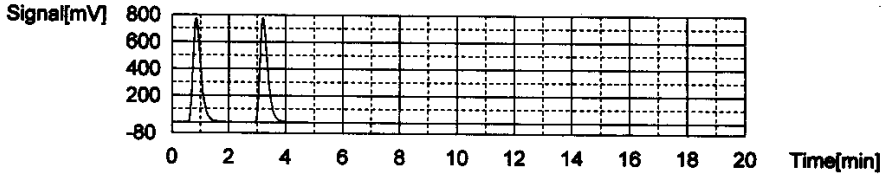
Acid Add. 10.00%
Mean Area 765.5



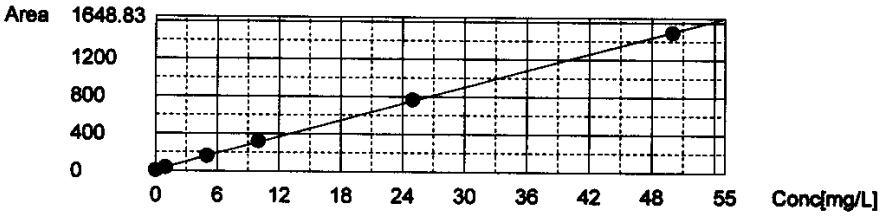
Conc: 50.00mg/L

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

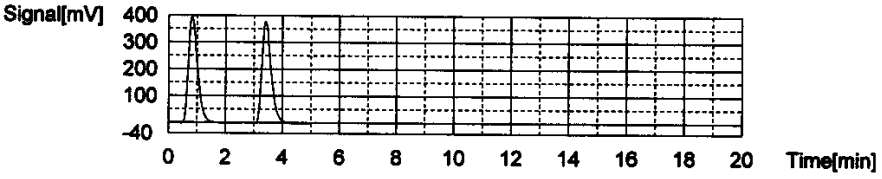
Type	Anal.	Dil.	Result
Unknown	TC	1.000	TC:23.27mg/L

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

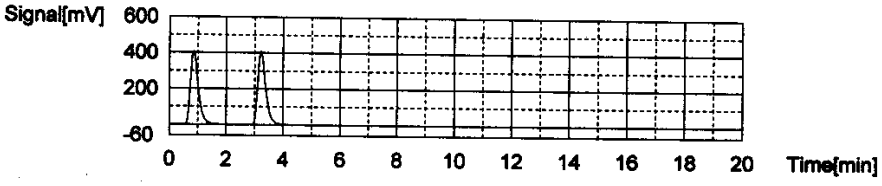
Type	Anal.	Dil.	Result
Unknown	IC	1.000	IC:26.21mg/L

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

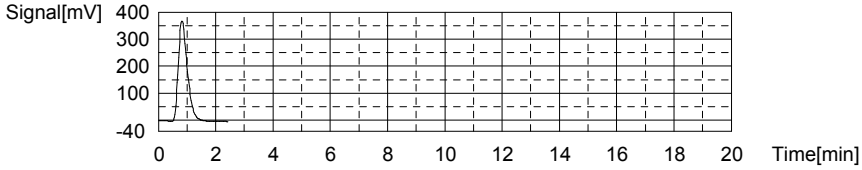
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:21.74mg/L TC:21.58mg/L IC:-0.1633mg/L

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

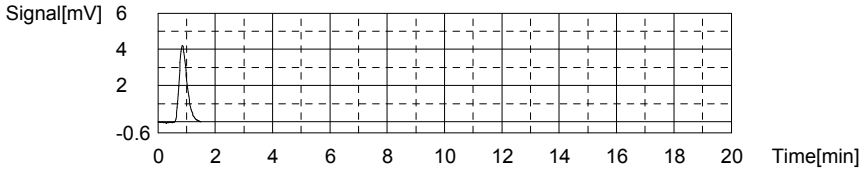
Mean Area 810.8
Mean Conc. 21.58mg/L



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

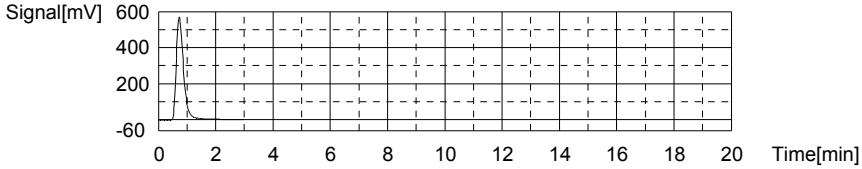
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.489mg/L TC:26.91mg/L IC:24.42mg/L

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

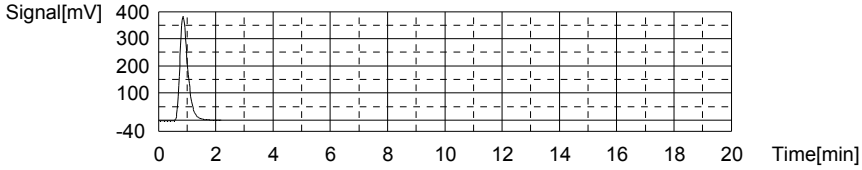
Mean Area 1011
Mean Conc. 26.91mg/L



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

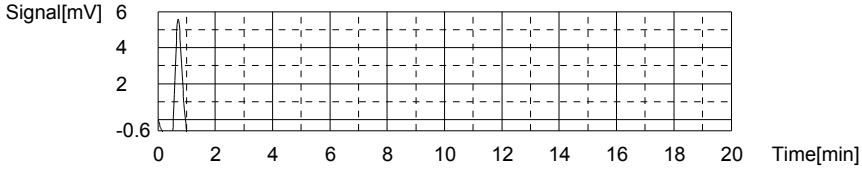
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.4741mg/L TC:0.3076mg/L IC:-0.1665mg/L

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

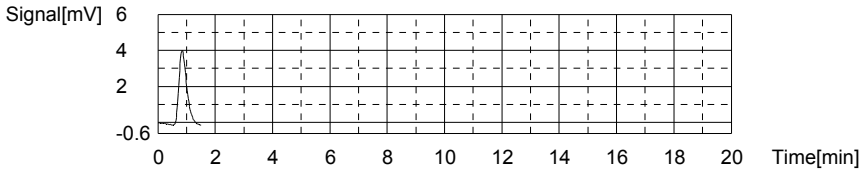
Mean Area 11.65
Mean Conc. 0.3076mg/L



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

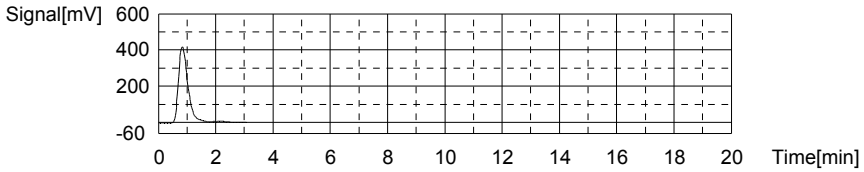
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.43mg/L TC:26.24mg/L IC:-0.1890mg/L

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

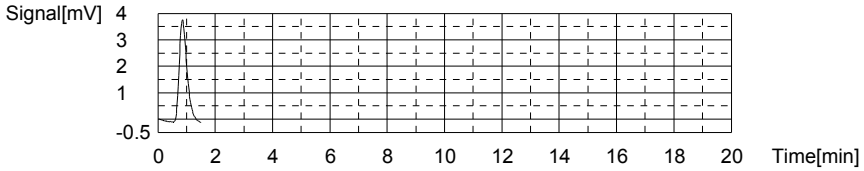
Mean Area 985.9
Mean Conc. 26.24mg/L



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

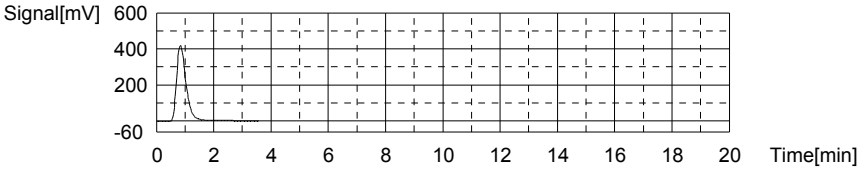
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.18mg/L TC:25.99mg/L IC:-0.1922mg/L

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

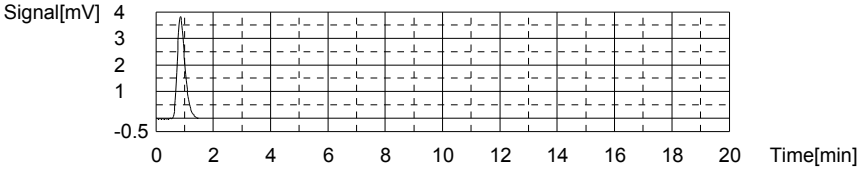
Mean Area 976.6
Mean Conc. 25.99mg/L



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

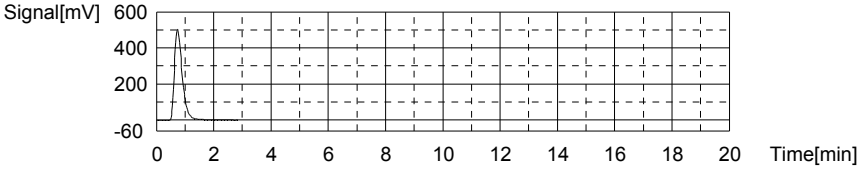
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.340mg/L TC:25.78mg/L IC:24.44mg/L

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

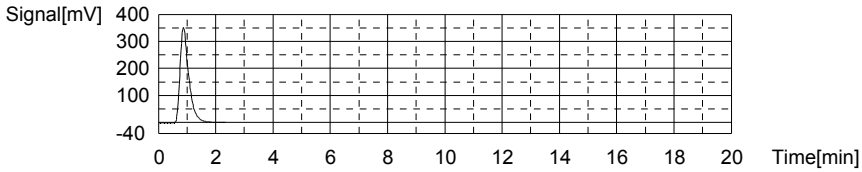
Mean Area 968.7
Mean Conc. 25.78mg/L



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

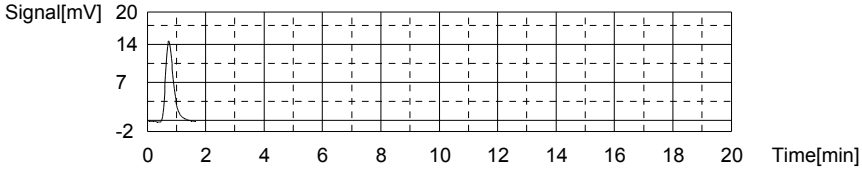
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.8374mg/L TC:0.7497mg/L IC:-0.08767mg/L

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

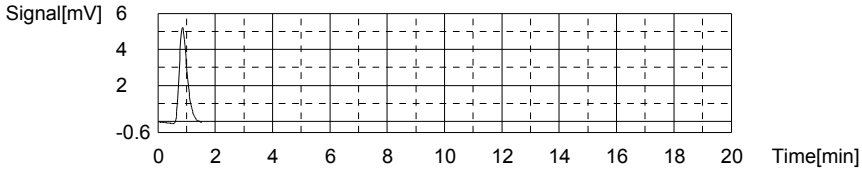
Mean Area 28.26
Mean Conc. 0.7497mg/L



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

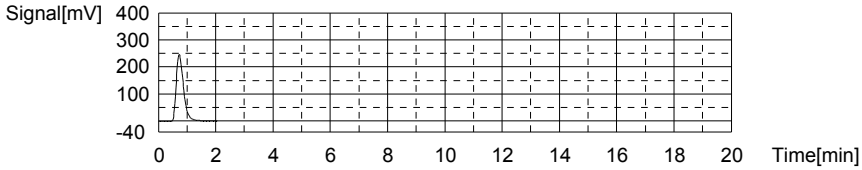
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.525mg/L TC:11.65mg/L IC:10.13mg/L

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

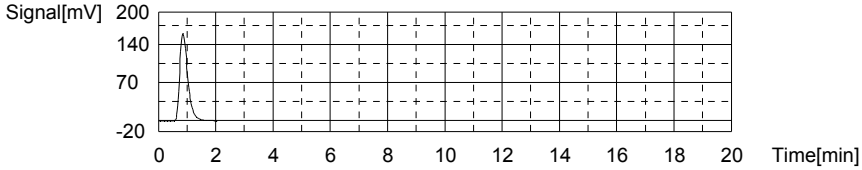
Mean Area 437.9
Mean Conc. 11.65mg/L



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

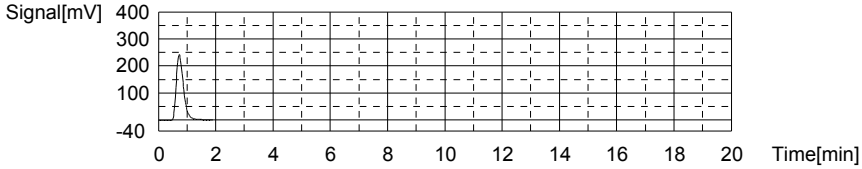
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.274mg/L TC:11.26mg/L IC:9.990mg/L

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

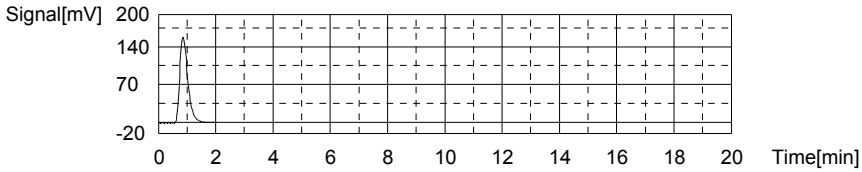
Mean Area 423.3
Mean Conc. 11.26mg/L



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

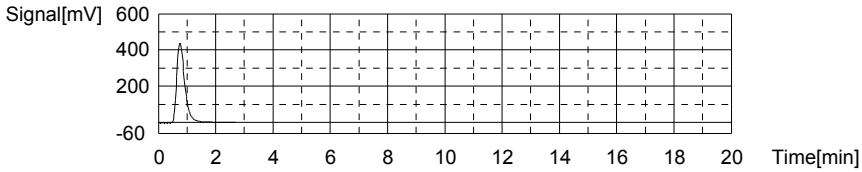
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.37mg/L TC:22.96mg/L IC:11.59mg/L

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

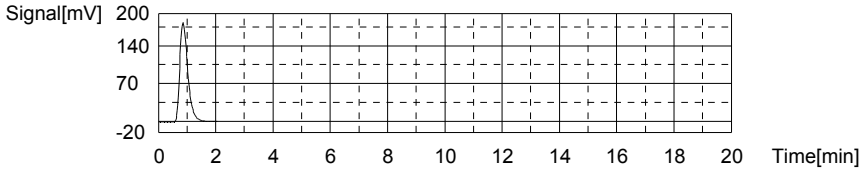
Mean Area 862.8
Mean Conc. 22.96mg/L



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

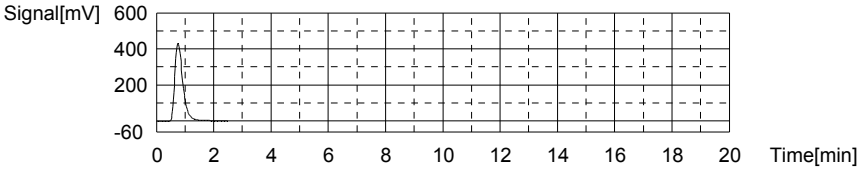
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.29mg/L TC:22.71mg/L IC:11.42mg/L

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

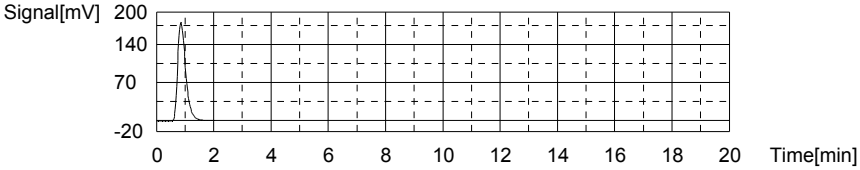
Mean Area 853.2
Mean Conc. 22.71mg/L



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

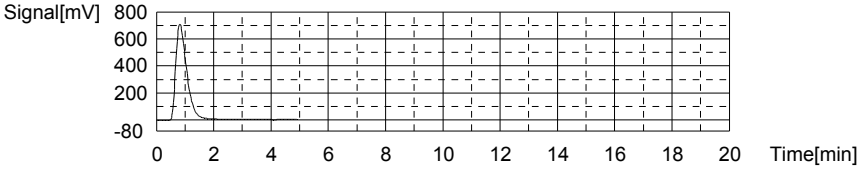
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:43.21mg/L TC:52.03mg/L IC:8.823mg/L

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

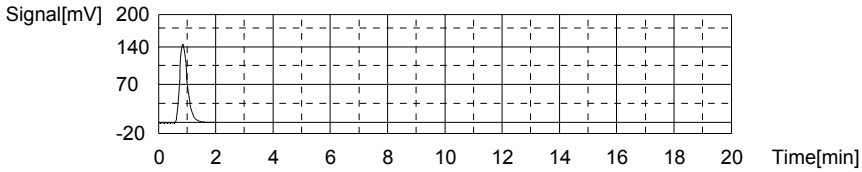
Mean Area 1955
Mean Conc. 52.03mg/L



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

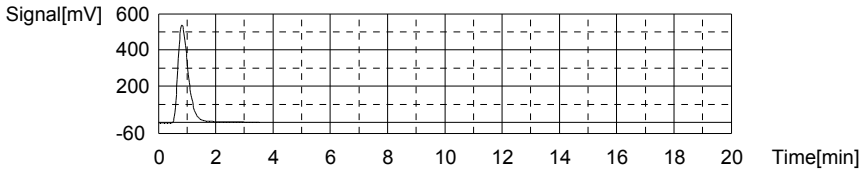
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:30.67mg/L TC:36.49mg/L IC:5.821mg/L

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

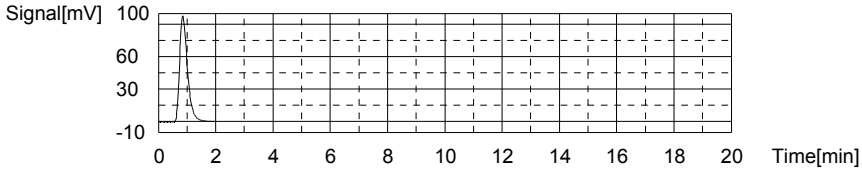
Mean Area 1371
Mean Conc. 36.49mg/L



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

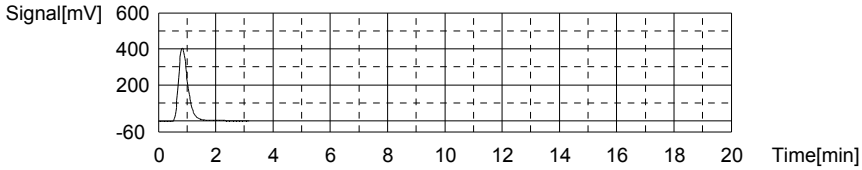
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:24.74mg/L TC:24.58mg/L IC:-0.1616mg/L

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

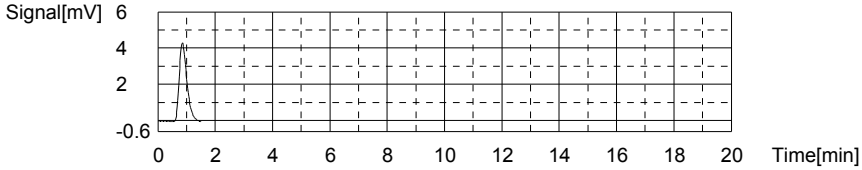
Mean Area 923.6
Mean Conc. 24.58mg/L



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

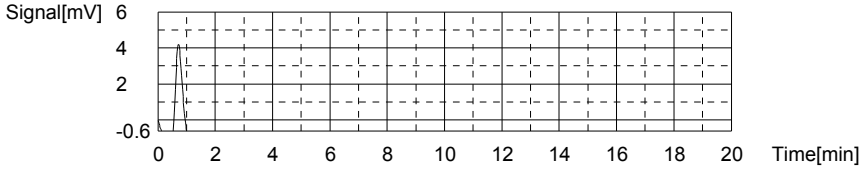
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.4546mg/L TC:0.2584mg/L IC:-0.1962mg/L

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

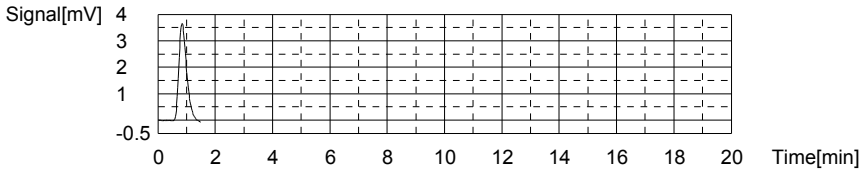
Mean Area 9.801
Mean Conc. 0.2584mg/L



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

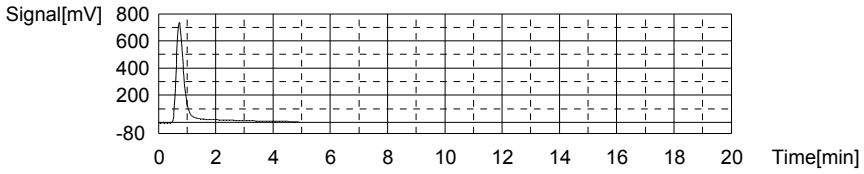
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.20mg/L TC:41.79mg/L IC:30.58mg/L

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

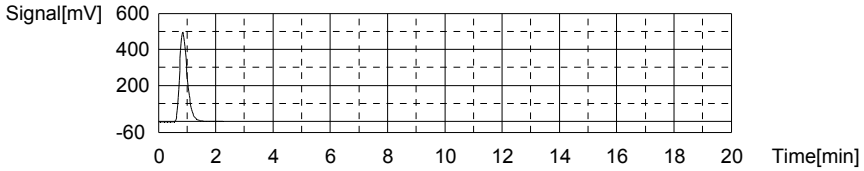
Mean Area 1570
Mean Conc. 41.79mg/L



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

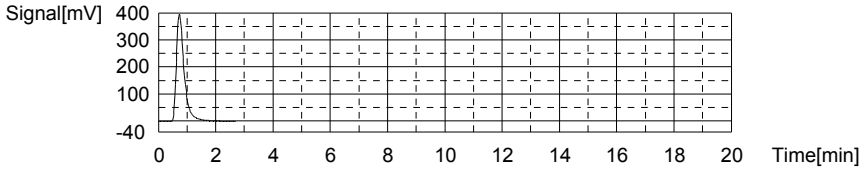
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.827mg/L TC:20.04mg/L IC:15.22mg/L

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

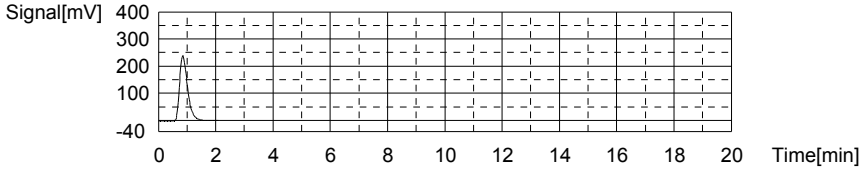
Mean Area 753.1
Mean Conc. 20.04mg/L



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

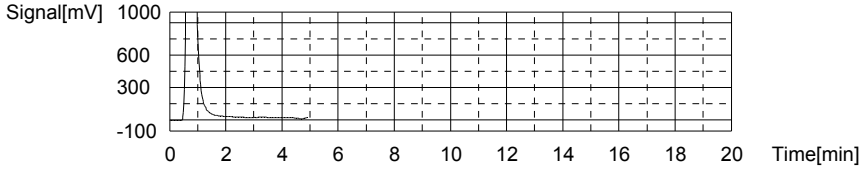
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:-11.54mg/L TC:113.5mg/L IC:125.0mg/L

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

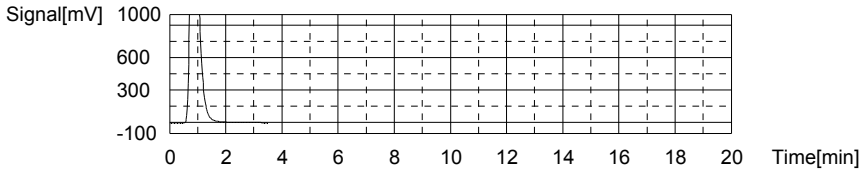
Mean Area 4264
Mean Conc. 113.5mg/L



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

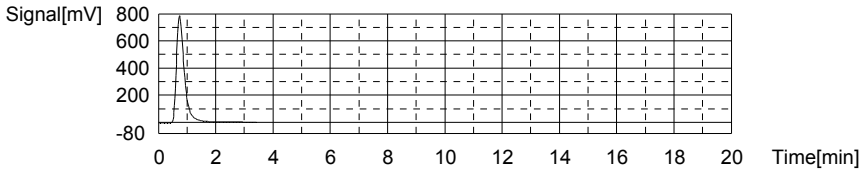
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:13.99mg/L TC:40.61mg/L IC:26.63mg/L

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

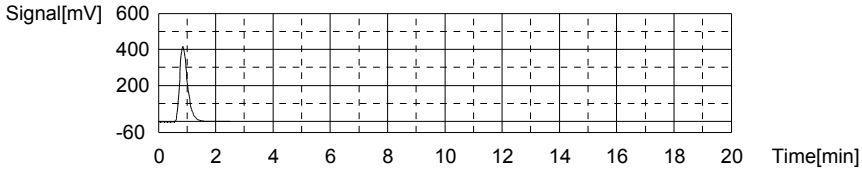
Mean Area 1526
Mean Conc. 40.61mg/L



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

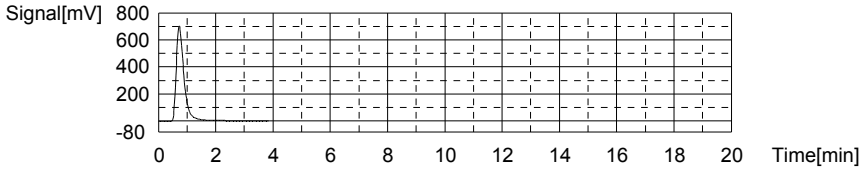
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:7.957mg/L TC:35.53mg/L IC:27.57mg/L

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

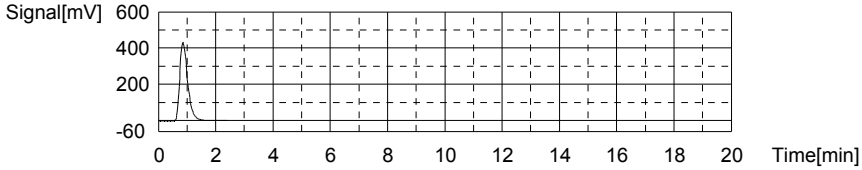
Mean Area 1335
Mean Conc. 35.53mg/L



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

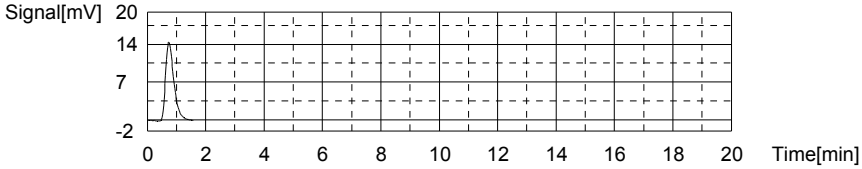
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.8529mg/L TC:0.7649mg/L IC:-0.08801mg/L

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

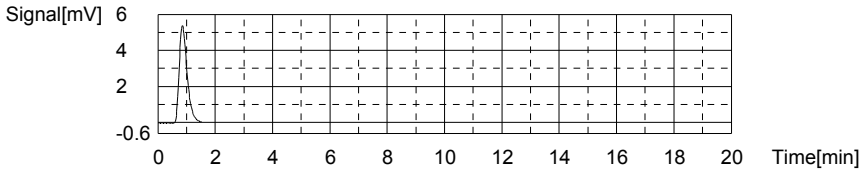
Mean Area 28.83
Mean Conc. 0.7649mg/L



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

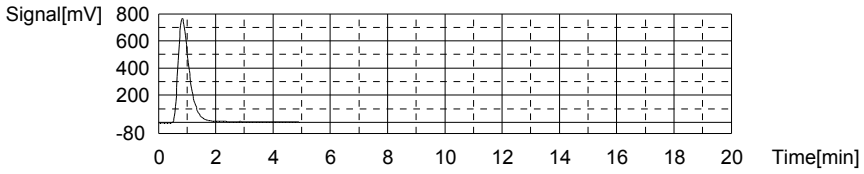
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:48.08mg/L TC:57.04mg/L IC:8.960mg/L

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

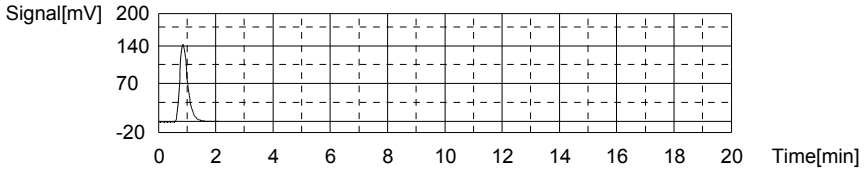
Mean Area 2143
Mean Conc. 57.04mg/L



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

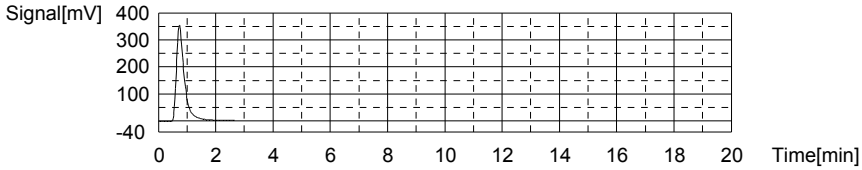
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.242mg/L TC:18.29mg/L IC:12.05mg/L

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

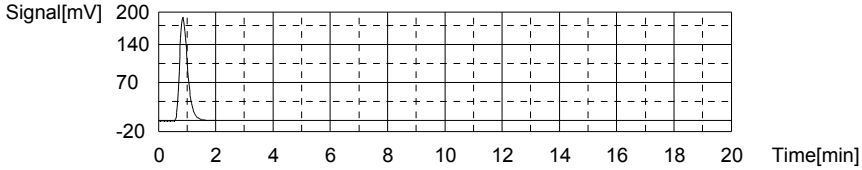
Mean Area 687.3
Mean Conc. 18.29mg/L



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

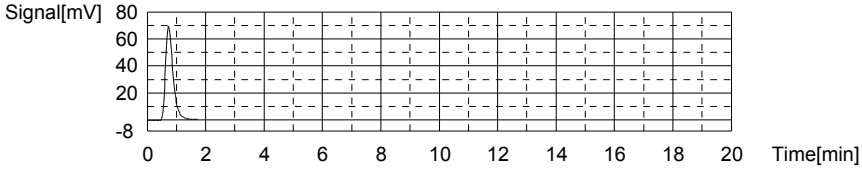
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.029mg/L TC:3.322mg/L IC:2.292mg/L

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

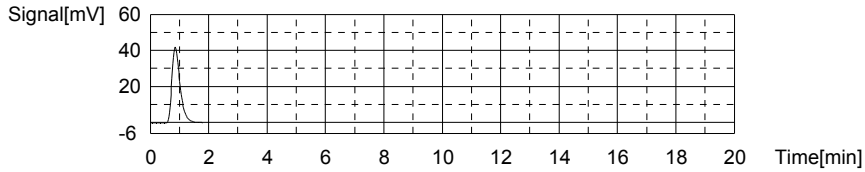
Mean Area 124.9
Mean Conc. 3.322mg/L



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

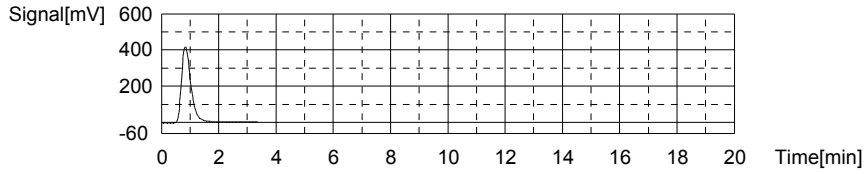
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.01mg/L TC:25.84mg/L IC:-0.1751mg/L

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

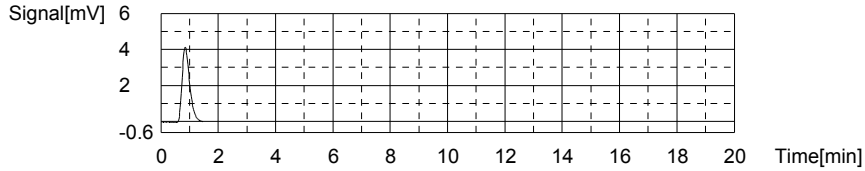
Mean Area 970.9
Mean Conc. 25.84mg/L



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

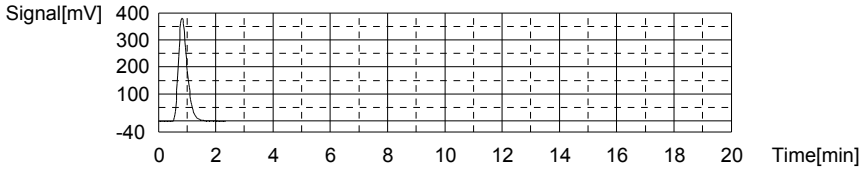
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:21.95mg/L TC:21.76mg/L IC:-0.1827mg/L

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

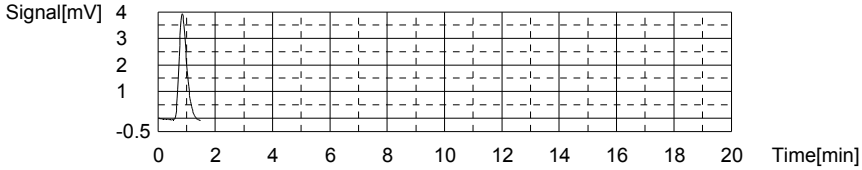
Mean Area 817.8
Mean Conc. 21.76mg/L



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

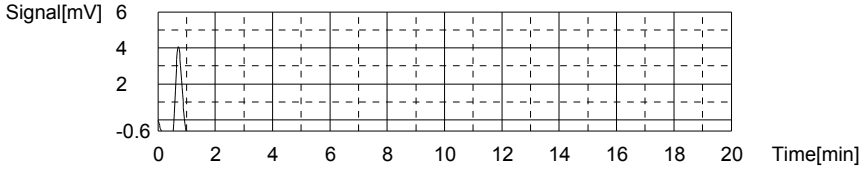
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.4522mg/L TC:0.2561mg/L IC:-0.1961mg/L

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

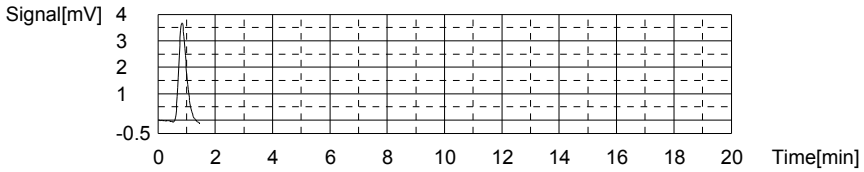
Mean Area 9.717
Mean Conc. 0.2561mg/L



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

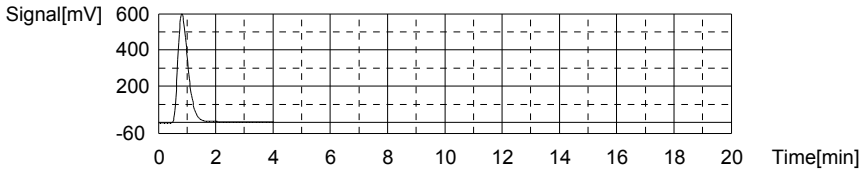
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:32.51mg/L TC:40.48mg/L IC:7.968mg/L

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

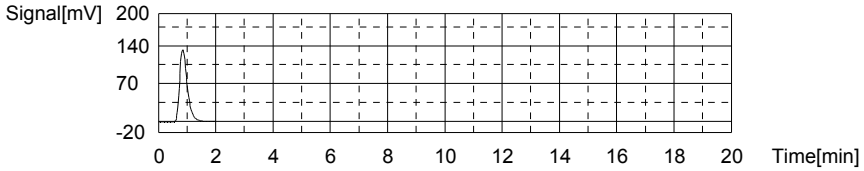
Mean Area 1521
Mean Conc. 40.48mg/L



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

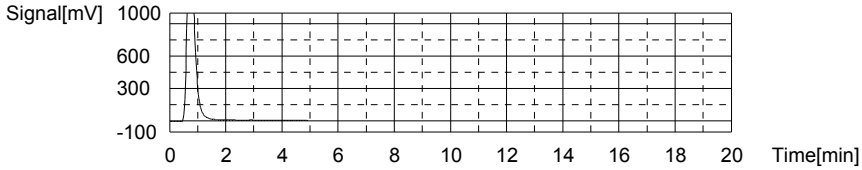
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.050mg/L TC:78.33mg/L IC:76.28mg/L

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

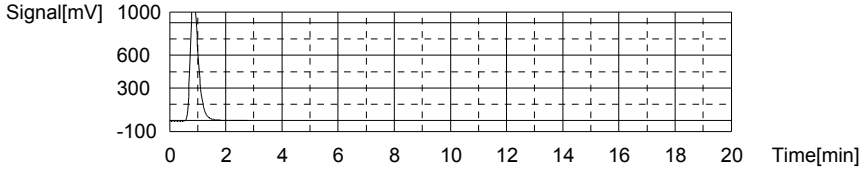
Mean Area 2943
Mean Conc. 78.33mg/L



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

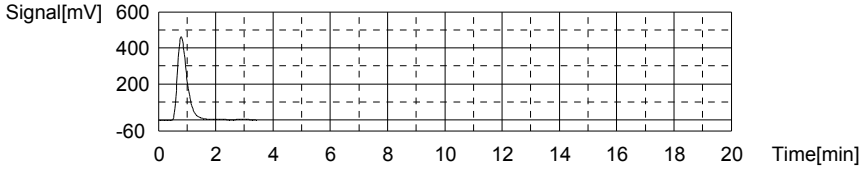
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:23.35mg/L TC:29.01mg/L IC:5.660mg/L

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

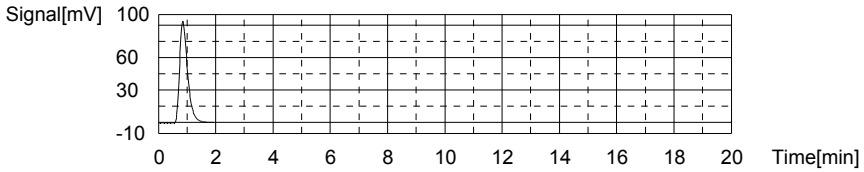
Mean Area 1090
Mean Conc. 29.01mg/L



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

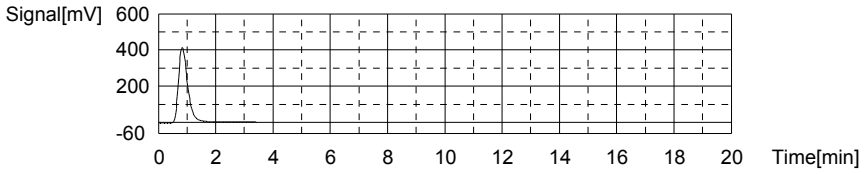
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.00mg/L TC:24.96mg/L IC:-0.03889mg/L

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

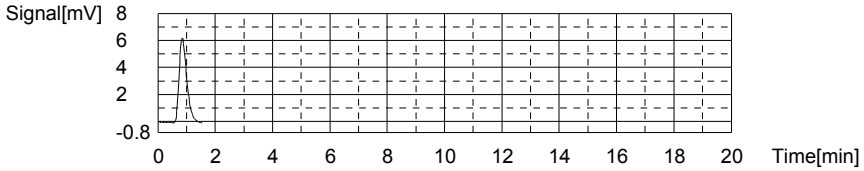
Mean Area 938.0
Mean Conc. 24.96mg/L



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

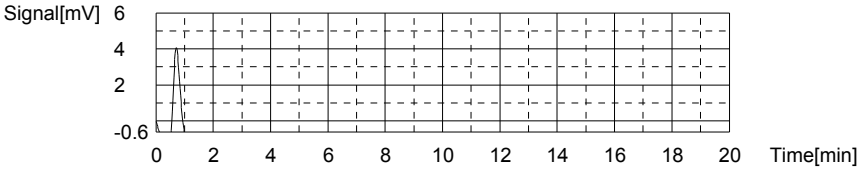
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.4325mg/L TC:0.2538mg/L IC:-0.1788mg/L

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

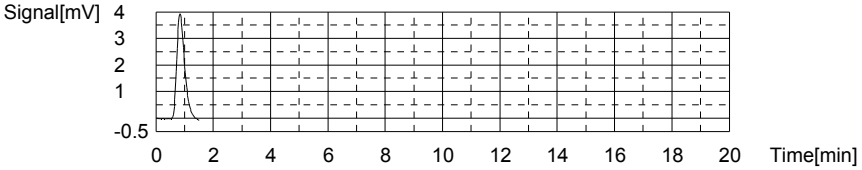
Mean Area 9.628
Mean Conc. 0.2538mg/L



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: L12010798
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: 42097
Approved By: Deanna Hesson

Microbac

Lab Report #: L12010798
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L12010798-01	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL22-0112-1	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	160.2	**Cal Date:**	
Workgroup #:	WG388543	**Analyst:**	HJR	**Run Date:**	02/01/2012 15:15
Collect Date:	01/30/2012 11:55	**Dilution:**	1	**File ID:**	EN.1202011515-20
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids		6.00		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: 01-FEB-2012
Analyst: HJR
Analyst: NA
Method: TSS
Instrument: OVEN
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG388543

Calibration/Linearity	2/1/12
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:
03-FEB-2012

Secondary Reviewer:
03-FEB-2012

CHECKLIST1 - Modified 03/05/2008
Generated: FEB-03-2012 14:31:16

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 160.2 AAB#: WG388543

Login Number: L12010798

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
MPL22-0112-1	01	01/30/12							7		02/01/12	2.1	7	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2298252
Report generated 02/03/2012 14:23

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L12010798
Blank File ID: EN.1202011515-01
Prep Date: 02/01/12 15:15
Analyzed Date: 02/01/12 15:15
Analyst: HJR

Work Group: WG388543
Blank Sample ID: WG388543-01
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	WG388543-02	EN.1202011515-02	02/01/12 15:15	
LCS2	WG388543-03	EN.1202011515-03	02/01/12 15:15	
MPL22-0112-1	L12010798-01	EN.1202011515-20	02/01/12 15:15	
DUP	WG388543-05	EN.1202011515-23	02/01/12 15:15	
DUP	WG388543-07	EN.1202011515-24	02/01/12 15:15	

Report Name: BLANK_SUMMARY
PDF File ID: 2298253
Report generated 02/03/2012 14:23

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L12010798 Prep Date: 02/01/12 15:15 Sample ID: WG388543-01
Instrument ID: OVEN Run Date: 02/01/12 15:15 Prep Method: 160.2/SM2540D
File ID: EN.1202011515-01 Analyst: HJR Method: 160.2
Workgroup (AAB#): WG388543 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: 2298254
03-FEB-2012 14:23

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12010798 Analyst: HJR Prep Method: 160.2/SM2540D
Instrument ID: OVEN Matrix: Water Method: 160.2
Workgroup (AAB#): WG388543 Units: mg/L
QC Key: DOD4 Lot #: STD49834

Sample ID: WG388543-02 LCS File ID: EN.1202011515-02 Run Date: 02/01/2012 15:15
Sample ID: WG388543-03 LCS2 File ID: EN.1202011515-03 Run Date: 02/01/2012 15:15

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Suspended Solids	50.0	50.0	100	50.0	49.0	98.0	2.02	75 - 125	10	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 2298255
Report generated: 02/03/2012 14:23

2.2.11.3 Raw Data

WORKGROUP: WG388543

TOTAL SUSPENDED SOLIDS

LCS: Std49834

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	LCS2	100				
01-0821-21	1	200				
-24	2	200				
-03	3	150				
-06	4	150				
-09	5	150				
-12	6	200				
-15	7	200				
-18	8	200				
02-0013-01	9	100				
-02	10	5				
-03	11	20				
-04	12	10				
-05	13	10				
-06	14	10				
-07	15	10				
-08	16	10				
01-0798-01	17	200				
01-0799-01	18	200				
01-0800-01	19	200				
	20		0.0956			
DUP: 02-0013-02	DUP1	5				
DUP: 01-0799-01	DUP2	200				

ANALYST: Holly Reed

DATE/TIME: (on) 2/1/12

DATE/TIME: (off)

DATE/TIME: (off)

DATE/TIME: (off)

* Duplicate required on 10% of samples

DCN#89792

Microbac Laboratories Inc.
GRAVIMETRIC REPORT

Workgroup (AAB#): WG388543
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
WG388543-01	BLK	200	0.1022	0.1023	0.1022		0	0	mg/L
WG388543-02	LCS	100	0.1007	0.106	0.1057		50.00	50.00	mg/L
WG388543-03	LCS2	100	0.0983	0.1031	0.1032		49.00	49.00	mg/L
L12010821-21	1	200	0.1002	0.1003	0.1004		1.000	ND	mg/L
L12010821-24	2	200	0.0978	0.0978	0.098		1.000	ND	mg/L
L12010821-03	3	150	0.0944	0.0951	0.0952		5.333	ND	mg/L
WG388543-08	3	150	0.0944	0.0951	0.0952		5.333	5.333	mg/L
L12010821-06	4	150	0.0967	0.102	0.102		35.33	35.33	mg/L
WG388543-09	4	150	0.0967	0.102	0.102		35.33	35.33	mg/L
L12010821-09	5	150	0.095	0.1005	0.1005		36.67	36.67	mg/L
WG388543-10	5	150	0.095	0.1005	0.1005		36.67	36.67	mg/L
L12010821-12	6	200	0.0971	0.0987	0.0985		7.000	7.000	mg/L
L12010821-15	7	200	0.0993	0.1012	0.101		8.500	8.500	mg/L
L12010821-18	8	200	0.0988	0.1003	0.1002		7.000	7.000	mg/L
L12020013-01	9	100	0.0945	0.112	0.1121		176.0	176.0	mg/L
L12020013-02	10	5	0.0954	0.102	0.1021		1340	1340	mg/L
WG388543-04	10	5	0.0954	0.102	0.1021		1340	1340	mg/L
L12020013-03	11	20	0.1017	0.1086	0.1088		355.0	355.0	mg/L
L12020013-04	12	10	0.0978	0.1227	0.1228		2500	2500	mg/L
L12020013-05	13	10	0.0975	0.1132	0.1133		1580	1580	mg/L
L12020013-06	14	10	0.0994	0.1396	0.1399		4050	4050	mg/L
L12020013-07	15	10	0.0983	0.1288	0.1289		3060	3060	mg/L
L12020013-08	16	10	0.0978	0.1302	0.1305		3270	3270	mg/L
L12010798-01	17	200	0.0943	0.0956	0.0955		6.000	6.000	mg/L
L12010799-01	18	200	0.0941	0.0963	0.0963		11.00	11.00	mg/L
WG388543-06	18	200	0.0941	0.0963	0.0963		11.00	11.00	mg/L
L12010800-01	19	200	0.099	0.1006	0.1005		7.500	7.500	mg/L
WG388543-05	DUP1	5	0.0991	0.106	0.106		1380	1380	mg/L
WG388543-07	DUP2	200	0.0958	0.0981	0.0981		11.50	11.50	mg/L

L12010821-06	ms=100ml of lcs to 150ml of sample
L12010821-09	msd=100ml of lcs to 150ml of sample
WG388543-09	ms=100ml of lcs to 150ml of sample
WG388543-10	msd=100ml of lcs to 150ml of sample

Analyst:

*Duplicate required on 10% of samples

Date/Time (on) : 02/01/2012 15:15
Date/Time (off): 02/02/2012 15:50
Date/Time (off): 02/03/2012 12:56
Date/Time (off):

CONT_GRAV_REPORT - Modified 02/18/2011
PDF ID: 2296169
Report generated: 02/03/2012 13:00

Microbac

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.

L12010798 / Revision: 0 / 1068 total pages

COC No. A 28476

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 #:

Turn Around Requirements: Normal

Location: WSMR

Project ID: STP

Sampler (print): Allison Jenness

Signature:

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other _____

ADDITIONAL REQUIREMENTS

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	Anions	Cond. pH PO_4	Alkalinity	Total, Free, Amenable CN	Metals	NH_3 TOC NO_3 NO_2	TSS TDS								TOTAL # (LAB USE)	
MPL 22-0112-1		X	1-30-12	1155	W	7		X	X	X	X	X	X	X									

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received by: (Signature)
Brady Dow	1-30-12	1700				
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Remarks:		

Microbac OVD
Received: 01/31/2012 10:17
By: BOB BUCHANAN
221000021988
R F Buchanan

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

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Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L12010798
Account: 3005
Project: 3005.011
Samples: 1
Due Date: 10-FEB-2012

Samplenum	Container ID	Products
L12010798-01	933083	300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	31-JAN-2012 11:53	RLK		
2	ANALYZ	W1	SEM	03-FEB-2012 11:14	JBK	RLK	
3	STORE	WET	A1	09-FEB-2012 09:09	JKT	JBK	

Samplenum	Container ID	Products
L12010798-01	933084	ALK ALK-B ALK-C

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	31-JAN-2012 11:53	RLK		
2	ANALYZ	W1	WET	03-FEB-2012 08:14	DIH	JKS	
3	STORE	WET	A1	07-FEB-2012 09:23	JKS	DIH	

Samplenum	Container ID	Products
L12010798-01	933085	COND COR-PH PO4

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	31-JAN-2012 11:53	RLK		
2	ANALYZ	W1	WET	31-JAN-2012 11:55	HJR	RLK	
3	STORE	WET	A1	08-FEB-2012 08:07	JKS	DLP	

Samplenum	Container ID	Products
L12010798-01	933086	TDS TSS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	31-JAN-2012 11:53	RLK		
2	ANALYZ	W1	WET	01-FEB-2012 15:01	HJR	RLK	
3	STORE	WET	A1	03-FEB-2012 10:22	RLK	HJR	

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: L12010798
Account: 3005
Project: 3005.011
Samples: 1
Due Date: 10-FEB-2012

Samplenum	Container ID	Products
L12010798-01	933087	NH3 NO3NO2 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	31-JAN-2012 11:53	RLK		<2
2	ANALYZ	W1	WET	31-JAN-2012 11:55	HJR	RLK	
3	STORE	WET	A1	07-FEB-2012 09:23	JKS	DIH	

Samplenum	Container ID	Products
L12010798-01	933088	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	31-JAN-2012 11:53	RLK		
2	PREP	W1	DIG	01-FEB-2012 05:02	REK	AZH	
3	ANALYZ*	DIG	METALS	01-FEB-2012 10:06	KHR	REK	
4	STORE	DIG	A1	02-FEB-2012 14:47	ERP	JKS	
5	PREP	A1	DIG	07-FEB-2012 08:43	REK	RLK	
6	STORE	DIG	A1	07-FEB-2012 12:16	JKS	ERP	

Sample extract/digestate/leachate

Samplenum	Container ID	Products
L12010798-01	933089	CN CN-A CN-WD

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	31-JAN-2012 11:53	RLK		
2	ANALYZ	W1	WET	03-FEB-2012 07:24	JBK	RLK	
3	STORE	WET	A1	08-FEB-2012 08:06	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