

ANALYTICAL DATA

METHOD 29

General Engineering Laboratories, LLC

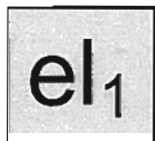
2040 Savage Road
Charleston, SC 29407

Project No: CGRB00109c and CRB600109

Antimony, Arsenic, Beryllium,
Cadmium, Chromium, Cobalt,
Lead, Manganese, Nickel, Phosphorus,
Selenium and Mercury

EPA Method 29 Analysis

Analytical Report
13882



Element One, Inc.
5022-C Wrightsville Av., Wilmington, NC 28403
910-793-0128 FAX: 910-792-6853 e1lab@e1lab.com

The following data for Analytical Report 13882
has been reviewed for completeness, accuracy,
adherence to method protocol,
and compliance with quality assurance guidelines.

Review by:

Daphne Woodman, Chemist
February 10, 2010

Report Reviewed and Finalized By:

Ken Smith, Laboratory Director
February 10, 2010

SUMMARY OF RESULTS

Summary of Analysis

Summary of Method 29 Mercury Analysis

Run Number		Average Total Catch, μg	Front half μg	H_2O_2 / HNO_3 μg	Empty Impinger μg	KMnO_4 μg	HCl μg
SSZ Run 1	#1	149	< 0.1	52.3	4.17	86.0	5.35
	#2		< 0.1	50.9	4.01	89.0	5.53
SSZ Run 2	#1	173	< 0.1	56.3	2.73	106	8.04
	#2		< 0.1	54.8	2.71	108	7.95
SSZ Run 3	#1	124	< 0.1	55.3	3.33	31.6	34.1
	#2		< 0.1	54.8	3.46	31.8	34.1
Reagent Blank	#1	< 0.5	< 0.2	< 0.3	< 0.2	< 0.5	< 0.4
	#2		< 0.2	< 0.3	< 0.2	< 0.5	< 0.4

Summary of Analysis

Front Half - Summary of Method 29 Metals Analysis

Element	SSZ Run 1 13882-1 FH Total µg	SSZ Run 2 13882-2 FH Total µg	SSZ Run 2 13882-2 FH dup Total µg	SSZ Run 3 13882-3 FH Total µg	Reagent Blank 13882-4 FH Total µg
Antimony	0.605	0.351	0.337	0.739	< 0.1
Arsenic	0.999	1.33	1.28	1.48	< 0.1
Beryllium	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Cadmium	0.247	0.370	0.370	0.239	< 0.1
Chromium	5.25	2.73	2.69	7.95	< 0.1
Cobalt	< 0.1	0.224	0.220	< 0.1	< 0.1
Lead	0.943	0.910	0.884	0.734	< 0.1
Manganese	1.93	4.34	4.29	3.53	< 0.1
Nickel	5.42	19.7	19.3	11.4	< 0.1
Phosphorus	14.0	21.2	20.7	17.1	< 2
Selenium	2.84	6.61	6.53	6.19	< 0.1

Back Half - Summary of Method 29 Metals Analysis

Element	SSZ Run 1 13882-1 BH Total µg	SSZ Run 2 13882-2 BH Total µg	SSZ Run 2 13882-2 BH dup Total µg	SSZ Run 3 13882-3 BH Total µg	Reagent Blank 13882-4 BH Total µg
Antimony	0.290	0.222	0.197	< 0.1	0.212
Arsenic	1.05	0.826	0.881	0.742	< 0.1
Beryllium	< 0.05	< 0.05	< 0.05	< 0.05	< 0.025
Cadmium	0.295	0.241	0.245	0.431	< 0.1
Chromium	3.96	1.89	1.88	2.90	0.360
Cobalt	0.994	0.377	0.374	0.447	< 0.1
Lead	0.254	0.458	0.519	0.134	< 0.1
Manganese	3.95	1.60	1.50	1.72	0.204
Nickel	0.791	0.973	0.999	0.870	0.394
Phosphorus	18.6	21.1	21.1	18.3	19.0
Selenium	17.3	13.0	13.0	12.8	< 0.1

ANALYTICAL NARRATIVE

Element One Analytical Narrative

Client:	GEL, Inc.	Element One #:	13882
Client ID:	City of Greensboro	Analyst:	AEH & ESS
Method:	Method 29	Dates Received:	01/21/10
Analytes:	Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, P, Se & Hg	Dates Analyzed:	01/26/10-02/09/10

Summary of Analysis

The Method 29 samples were digested, prepared, and analyzed according to Method 29 protocol. Samples were analyzed for mercury on a PerkinElmer FIMS-100 CVAA mercury analyzer. The samples were analyzed for the other metals on a PerkinElmer ELAN 6100 ICP-MS.

Detection Limits

The FIMS-100 CVAA instrument reporting limit for mercury was 0.004 µg per aliquot analyzed. The ICP-MS instrument reporting limits were 0.25µg/L for beryllium, 20µg/L for phosphorus and 1.0µg/L for the other metals.

Analysis QA/QC

Duplicate analyses relative percent difference (RPD), spike sample recovery, and second source calibration verification data are summarized in the Quality Control Section. It was necessary to analyze the back half fraction at a two-fold dilution for beryllium to reduce matrix interference; thus increasing the reporting limits from 0.025µg to 0.05µg. All QA/QC data was within the criteria of the method.

Additional Comments

The reported results have not been corrected for any blank values or spike recovery values. Analysis of the Reagent Blank sample revealed detectable concentrations of metals, subsequent analysis produced equivalent results.

QUALITY CONTROL SUMMARY

Summary of Quality Control Data

Mercury Duplicate Analysis RPD

(Method 29 QC limits: < 10% for RPD)

Run Number	Front half	H ₂ O ₂ /HNO ₃	Empty Imp	KMnO ₄	HCl
SSZ Run 1	NA	2.9%	4.1%	3.4%	3.3%
SSZ Run 2	NA	2.6%	0.7%	1.7%	1.1%
SSZ Run 3	NA	1.0%	3.8%	0.7%	0.1%
Reagent Blank	NA	NA	NA	NA	NA

Mercury Spike Recoveries

(Method 29 QC limits: ± 25% for Spike Recoveries)

Run Number		Front half	H ₂ O ₂ /HNO ₄	Empty Imp	KMnO ₄	HCl
SSZ Run 3	#1	84%	100%	98%	102%	97%
	#2	88%	101%	100%	104%	96%

Summary of Quality Control Data

Metals Duplicate Analysis RPD

(Method 29 QC limits: < 20% for RPD)

Element	SSZ Run 2	SSZ Run 2
	Front Half	Back Half
	13882-2 FH RPD	13882-2 BH RPD
Antimony	4.0%	12.1%
Arsenic	3.8%	6.4%
Beryllium	NA	NA
Cadmium	0.0%	1.6%
Chromium	1.4%	0.7%
Cobalt	1.5%	0.9%
Lead	2.9%	12.4%
Manganese	1.1%	6.6%
Nickel	2.3%	2.7%
Phosphorus	2.6%	0.4%
Selenium	1.2%	0.1%

Metals Spike Recoveries

(Method 29 QC limits: $\pm 25\%$ for Spike Recoveries)

Element	SSZ Run 3	SSZ Run 3
	Front Half	Back Half
	13882-3 FH Recovery	13882-3 BH Recovery
Antimony	96%	90%
Arsenic	90%	84%
Beryllium	83%	79%
Cadmium	91%	84%
Chromium	104%	97%
Cobalt	96%	94%
Lead	101%	100%
Manganese	104%	102%
Nickel	102%	90%
Phosphorus	90%	86%
Selenium	91%	78%

Summary of Quality Control Data

Element	Second Source Calibration Check Recoveries				
	<i>(Method 29 QC limits: $\pm 10\%$ for Second Source Continuing Check Standard*)</i>				
	0.25 ppb	1 ppb	50 ppb	100 ppb*	250 ppb
Antimony		101%	120%	95%	107%
Arsenic		100%	98%	99%	98%
Beryllium	99%	105%	99%	103%	99%
Cadmium		102%	96%	100%	97%
Chromium		111%	101%	103%	103%
Cobalt		107%	99%	104%	98%
Lead		93%	101%	106%	98%
Manganese		90%	101%	104%	98%
Nickel		95%	94%	100%	98%
Phosphorus		104%	96%	98%	97%
Selenium		117%	99%	101%	96%

SAMPLE CUSTODY

elementOne
13882 GEL M29 Report Packet.doc
Page 13 of 32

Page: <u>1</u> of <u>2</u> Project #: _____ GEL Order #: _____ GEL Number: _____ PO Number: _____		GEL Chain of Custody and Analytical Request				GEL Laboratories, LLC 2040 Savage Road Charleston, SC 29407 Phone: (843) 556-8171 Fax: (843) 766-1178	
Client Name: <u>C277 OF GKE USA</u> Phone #: _____ Project/Job Name: _____ Fax #: _____ Address: _____		Sent Results To: <u>CH21 M/K/22</u>		Sample Analysis Requested ^{1a} (Fill in the number of containers for each test)		<< Preservative Type (d)	
Collected by: <u>ggn</u>		Sample ID <i>* For compounds - indicate test and sample description</i>		Date Collected (mm-dd-yy)		Time (hh:mm:ss)	
QC Code: <u>SSC #1-R3-5C</u>		QC Code: <u>SSC #1-R3-5C</u>		Field #		Sample Matrix	
QC Code: <u>SSC #1-2</u>		QC Code: <u>SSC #1-2</u>		Field #		Sample Matrix	
QC Code: <u>SSC #1-8A</u>		QC Code: <u>SSC #1-8A</u>		Field #		Sample Matrix	
QC Code: <u>SSC #1-8A</u>		QC Code: <u>SSC #1-8A</u>		Field #		Sample Matrix	
QC Code: <u>SSC #1-9</u>		QC Code: <u>SSC #1-9</u>		Field #		Sample Matrix	
QC Code: <u>SSC #1-10</u>		QC Code: <u>SSC #1-10</u>		Field #		Sample Matrix	
QC Code: <u>SSC #1-11</u>		QC Code: <u>SSC #1-11</u>		Field #		Sample Matrix	
TAT Requested: <u>Normal</u> Rush: _____ Specify: _____		Suspect Sample: _____		Test Results: _____		Yes / No	
Remarks: <u>Are there any known hazards applicable to these samples? If so, please list the hazards</u>		Create Deliverable: <u>C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4</u>		Sample Shipping and Delivery Details		Sample Collection Time Zone Eastern Pacific Other _____ Mountain	
Retained By (Signed) _____ Date _____ Time _____		Received by (Signed) _____ Date _____ Time _____		GEL PM: <u>CH21 M/K/22</u>		Date Shipped: <u>1/21/2016</u>	
1. Chain of Custody Number - Client Designated		2. QC Code - Normal Sample: TN - Trip Blank; RD - Trip Duplicate; EB - Trip Duplicate; MSB - Trip Duplicate; Sample: G - Control; C - Compound		3. Field Number - For repeat analyses, indicate with a "Y" - the "Y" sample was field duplicate or "N" - the sample was not field duplicate		4. Matrix Code: DW - Drinking Water; CW - Groundwater; SW - Surface Water; WW - Waste Water; W-Water; SD - Soil; SD - Sediment; SL - Sludge; SS - Solid Waste; O - Oil; F - Fumes; P - Vapor; U - Urine; F - Food; N - Nail	
5. Sample Analysis Requested: Analytical method requested (e.g. 8140H, 8410B, 7170A) and number of containers provided for each (e.g. 3, 5000 - 3, 6010B, 7170A - 1)		6. Preservative Type: BA - Hydrochloric Acid; PT - Nitric Acid; SH - Sodium Hydroxide; SA - Salicylic Acid; AA - Acetic Acid; MX - Mucous; ST - Sodium Bicarbonate; If no preservative is added - leave field blank		WHITE = LABORATORY YELLOW = FILE PINK = CLIENT		For Lab Receiving Use Only Custody Seal Intact? YES NO Cooler Temp: _____	

Page: <u>1</u> of <u>1</u>				GEL Chain of Custody and Analytical Request				GEL Laboratories, LLC 2040 Savage Road Charleston, SC 29407 Phone: (843) 556-8171 Fax: (843) 766-1178			
Project #: <u>13882</u>				GEL Work Order Number: <u>13882</u>				Sample Analysis Requested (F) in the number of containers for each test			
Client Name: <u>CITY OF GREENSBORO</u>				Phone #: <u></u>				Preservative Type (6)			
Project/Site Name: <u>GREENSBORO, NC</u>				Fax #: <u></u>				Comments Note: extra sample is required for sample specific QC			
Address: <u>GREENSBORO, NC</u>				Total number of containers				Test for Metals			
Collected by: <u>Gregg Semikowicz</u>				Send Results To: <u>GEL</u>				VIA Method 29			
Sample ID				Date Collected (mm-dd-yy)				Date Received			
* For composites - indicate start and stop date/time				Time (hh:mm)				Time (hh:mm)			
#3	Rw1			1/28/10							
#3	Rw2										
#3	Rw3										
#1	Rw1										
#1	Rw2										
#1	Rw3										

Remarks: Any questions call Craig McKenzie

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Sample Collection Time Zone: Pacific

Sample Shipping and Delivery Details

Relinquished by (Signed) [Signature] Date 1/28/10 Received by (Signed) [Signature] Date 1/29/10

Method of Shipment: 10/10

Date Shipped:

Label #1:

Label #2:

Label #3:

For Lab Receiving Use Only

Custody Seal Intact? YES

Cooler Temp: C

ANALYTICAL DATA

Analytical Calculations

Metals-

$$\text{Element Results } (\mu\text{g}) = \text{ICP Results } (\mu\text{g/L}) * \text{Dilution} * \text{Final Volume (L)}$$

Where-

ICP Results= Raw sample concentration (ppb)--*ICP-Data Sheet*

Dilution= $\frac{\text{Diluted Volume}}{\text{Aliquot}}$ --*ICP-MS Run Sheet*

Final Volume= FH= Final Volume (FV)--*Sample Submission*

BH= $\frac{\text{Received Volume (BV)} * \text{Final Volume (FV)}}{\text{Aliquot (Used)}}$ --*Sample Submission*

Combined Results= FH+BH

Mercury-

$$\text{Mercury Results } (\mu\text{g}) = \frac{\text{CVAA Results } (\mu\text{g}) * \text{Final Volume (ml)}}{\text{Aliquot (ml)}}$$

Where-

CVAA Results= Raw sample reading (μg)--*Hg-Data Sheet*

Aliquot= Sample Aliquot (Alq.)--*Hg-Data Sheet*

Final Volume= Final Volume (FV)*--*Sample Submission*

* With the exception of the BH fraction where-
= Received Volume (BV)--*Sample Submission*

Analytical Calculations

Spike Recovery-

$$\text{Spike (\%)} = \frac{(\text{Spiked Result } (\mu\text{g/L}) - \text{Sample Result } (\mu\text{g/L}))}{\text{Spike Amount } (\mu\text{g/L})} \times 100$$

Where-

Spike Result = Raw sample concentration (ppb)--*ICP-Data Sheet*

Sample Result = Raw sample concentration (ppb)--*ICP-Data Sheet*

Spike Amount--*ICP-MS Spike Table*

Duplicate Analysis RPD-

$$\text{RPD (\%)} = \frac{(\text{Duplicate Result } (\mu\text{g/L}) - \text{Sample Result } (\mu\text{g/L}))}{\text{Average } (\mu\text{g/L})} \times 100$$

Where-

Sample Result and Duplicate Results=Raw sample concentration (ppb)--*ICP-Data Sheet*

$$\text{Average} = \frac{(\text{Duplicate} + \text{Sample Results})}{2}$$

elementOne AIR TESTING SAMPLE SUBMISSION FORM Lab ID 13882

FH / BH SEPARATE ANALYSIS

Analysis Due Date 01.29.10
QA/QC/Report Due Date 02.02.10

Client GEL, Inc.
Project No CRBG 00109

Date Rec 01.21.10
Time Rec 1435

HNO₃ Lot: 101030 HF Lot: 5103072 HCl Lot: 4102030
Volume Marked Y/N Volume Loss Y/N? Ref. Method: 29

Sample Identification

1	SSZ-M29-R1	4	Reagent Blank
2	SSZ-M29-R2		
	SSZ-M29-R2 Duplicate		
3	SSZ-M29-R3		
	SSZ-M29-R3 Spike		

Analyses Requested Samples 1-4 Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, P, Se, & Hg - FH/BH Separate

Runs / FB	Fil / Ace (FH)		HNO ₃ (FH)		5% HNO ₃ /10% H ₂ O ₂ (BH)			HNO ₃ (A)		KMnO ₄ (B)		HCl (C)	
	pH <2.0	Y / N	pH <2.0	Y / N	pH <2.0	Y / N		pH <2.0	Y / N	pH <2.0	Y / N	pH <2.0	Y / N
Lab ID	Fil ID	BV ml	BV ml	FV ml	BV ml	Used	FV ml	BV ml	FV ml	BV ml	FV ml	BV ml	FV ml
1			105	100	375	158	50	75	200	670	500	175	400
2.D			155	↓	315	158	↓	55	↓	310	↓	150	↓
3.S			150	↓	380	190	↓	75	↓	310	↓	160	↓

M-29 Reagent Blank

Lab ID	Fraction	BV, ml	FV, ml	Comments
4	C-7 FH Acetone Blank	89		
	C-8A FH 0.1N HNO ₃	115	100	
	C-8A A 0.1N HNO ₃			
	C-8B B DI H ₂ O	115		used 33 mls
	C-9 BH 5% HNO ₃ /10% H ₂ O ₂	205		used 133 mls
	C-10 B 4% KMnO ₄ /10% H ₂ SO ₄	150		used 100 mls
	C-11 C 8N HCl DI H ₂ O	170	400	
	C-12 FH Filter			

Lab Communications

* DID not receive fh rinse for reagent blank ES 1.29.10
RB spike STD A, B + F

Filter & FH Rinse will be shipped following completion, by client, of particulates. Rec. on 1.29.10 1016 LRB

SS Page 1 of 1
1/21/2010 3:02:32 PM
SS Form By LRB
Labeled By/Date 1-26-10 ES

FH Prep By/Date 1-29-10 ES A Prep By/Date 1-26-10 ES
BH Prep By/Date 1-26-10 ES B Prep By/Date 1-26-10 ES
BH/FH Prep By/Date 1-10-10 ES Prep By/Date 1-29-10 ES
PM Prep By/Date ID Verification By/Date 1-26-10 NEW

elementOne

Method 29 Microwave Worksheet

$$13892 / 13882$$

Lab ID # e

Client: Testar/6el

Date Digested: 020110 Initials: ESS Worksheet Prepared by: ESS

[illegible]

Element One, Inc. Form 104 - Revision 1.0

1mole HNO₃ 1109030
2mole HF 5108072

6mils Hwbz 1109030
2mils Hcl 4109030

elementOne

Sample/Batch Report

User Name: icp
 Computer Name: D8D4DWD1
 Sample File: C:\elandata_icp\Sample\2.sam
 Report Date/Time: Wednesday, February 03, 2010 09:32:55

ack
2.3.10

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
5		QC Std 2		Sample					
14		13892-4		Sample					
15		13892-5		Sample					
16	d	13892-5		Duplicate of 3					
17		13892-6		Sample					
18	s	13892-6		Spike - 1 of 5					
19		13892-10		Sample					
20		13892-11		Sample					
21	d	13892-11		Duplicate of 8					
22		13892-12		Sample					
23	s	13892-12		Spike - 1 of 10					
24		13892-18		Sample					
25		13892-17		Sample					
26	d	13892-17		Duplicate of 13					
27		13892-18		Sample					
28	s	13892-18		Spike - 1 of 15					
29		13892-19		Sample					
30		13892-20		Sample					
31		LRB FH	GEL	Sample					
32	s	LRB FH	GEL	Spike - 1 of 19					
33		13882-1 FH	GEL	Sample					
34		13882-2 FH	GEL	Sample					
35	d	13882-2 FH	GEL	Duplicate of 22					
36		13882-3 FH	GEL	Sample					
37	s	13882-3 FH	GEL	Spike - 1 of 24					
38		LRB BH	GEL	Sample					
39	s	LRB BH	GEL	Spike - 1 of 26					
40		13882-1 BH	GEL	Sample					
41		13882-2 BH	GEL	Sample					
42	d	13882-2 BH	GEL	Duplicate of 29					
43		13882-3 BH	GEL	Sample					
44	s	13882-3 BH	GEL	Spike - 1 of 31					
45		13882-4 BH	GEL	Sample					
46		13486-10		Sample					
5		QC Std 2		Sample					
47	x2	13892-12		Sample					
48	x2s	13892-12		Spike - 1 of 36					
49		13892-19 FH		Sample					
50		13892-19 BH		Sample					
51		13892-20 FH		Sample					
52		13892-20 BH		Sample					
53		13882-3 FH	gel	Sample					
54	s	13882-3 FH	gel	Spike - 1 of 42					
55		13882-2 BH	gel	Sample					
56	d	13882-2 BH	gel	Duplicate of 44					
57		13882-3 BH	gel	Sample					
58	s	13882-3 BH	gel	Spike - 1 of 46					
59	x2	13882-3 BH	gel	Sample					
60	x2s	13882-3 BH	gel	Spike - 1 of 48					

61		13882-4 BH	get	Sample
31		LR8 FH	GEL	Sample
32	s	LR8 FH	GEL	Spike - 4 of 51
38		LR8 BH	GEL	Sample
39	s	LR8 BH	GEL	Spike - 4 of 53
62	x2	13892-10		Sample
63	x2	13892-11		Sample
64	x2d	13892-11		Duplicate of 58
65	x2	13882-1 BH	GEL	Sample
66	x2	13882-2 BH	GEL	Sample
67	x2d	13882-2 BH	GEL	Duplicate of 59
68		13881		Sample
69		13881		Duplicate of 61

Dataset Report

User Name: icp
Computer Name: D8D4DWD1
Dataset File Path: C:\elandata_icp\DataSet\020210-1\
Report Date/Time: Wednesday, February 03, 2010 09:32:49

Handwritten:
J.B. 1/3

Autosampler Position: 11

The Dataset

Time	Sample ID	Batch ID	Read Type	Description	Init. Quant	Prep. Vol.	Aliquot. Vol.	Diluted V
09:24:18 Tue 02-Feb-10	Blank		Blank					
09:27:01 Tue 02-Feb-10	Standard 1		Standard #1					
09:29:44 Tue 02-Feb-10	Standard 2		Standard #2					
09:32:28 Tue 02-Feb-10	Standard 3		Standard #3					
09:35:15 Tue 02-Feb-10	QC Std 1		QC Std #1					
09:37:59 Tue 02-Feb-10	QC Std 2		QC Std #2					
09:40:43 Tue 02-Feb-10	QC Std 3		QC Std #3					
09:43:26 Tue 02-Feb-10	QC Std 4		QC Std #4					
09:46:10 Tue 02-Feb-10	QC Std 5		QC Std #5					
09:48:53 Tue 02-Feb-10	QC Std 6		QC Std #6					
09:51:38 Tue 02-Feb-10	QC Std 7		QC Std #7					
09:54:23 Tue 02-Feb-10	QC Std 8		QC Std #8					
09:57:08 Tue 02-Feb-10	QC Std 9		QC Std #9					
09:59:53 Tue 02-Feb-10	QC Std 10		QC Std #10					
10:02:39 Tue 02-Feb-10	QC Std 2		Sample					
10:05:23 Tue 02-Feb-10	13892-4		Sample					
10:12:17 Tue 02-Feb-10	13892-5		Sample					
10:15:00 Tue 02-Feb-10	13892-5	d	Duplicate of 17					
10:17:46 Tue 02-Feb-10	13892-6		Sample					
10:20:29 Tue 02-Feb-10	13892-6	s	Spike - 1 of 19					
10:23:12 Tue 02-Feb-10	13892-10		Sample					
10:25:55 Tue 02-Feb-10	13892-11		Sample					
10:28:39 Tue 02-Feb-10	13892-11	d	Duplicate of 22					
10:31:24 Tue 02-Feb-10	13892-12		Sample					
10:34:09 Tue 02-Feb-10	13892-12	s	Spike - 1 of 24					
10:36:54 Tue 02-Feb-10	13892-16		Sample					
10:39:38 Tue 02-Feb-10	QC Std 1		QC Std #1					
10:42:21 Tue 02-Feb-10	QC Std 4		QC Std #4					
10:52:46 Tue 02-Feb-10	Blank		Blank					
10:55:30 Tue 02-Feb-10	QC Std 2		Sample					
11:00:47 Tue 02-Feb-10	13892-17		Sample					
11:03:32 Tue 02-Feb-10	13892-17	d	Duplicate of 31					
11:06:15 Tue 02-Feb-10	13892-18		Sample					
11:08:58 Tue 02-Feb-10	13892-18	s	Spike - 1 of 33					
11:11:42 Tue 02-Feb-10	13892-19		Sample					
11:14:26 Tue 02-Feb-10	13892-20		Sample					
11:17:08 Tue 02-Feb-10	LRB FH		Sample	GEL				
11:19:52 Tue 02-Feb-10	LRB FH	s	Spike - 1 of 37	GEL				
11:22:36 Tue 02-Feb-10	13882-1 FH		Sample	GEL				
11:25:20 Tue 02-Feb-10	13882-2 FH		Sample	GEL				
11:28:05 Tue 02-Feb-10	13882-2 FH	d	Duplicate of 40	GEL				
11:30:49 Tue 02-Feb-10	QC Std 1		QC Std #1					
11:33:32 Tue 02-Feb-10	QC Std 4		QC Std #4					

11:36:17 Tue 02-Feb-10	13882-3 FH		Sample	GEL
11:39:02 Tue 02-Feb-10	13882-3 FH	s	Spike - 1 of 44	GEL
11:41:47 Tue 02-Feb-10	LRB BH		Sample	GEL
11:44:31 Tue 02-Feb-10	LRB BH	s	Spike - 1 of 46	GEL
11:47:15 Tue 02-Feb-10	13882-1 BH		Sample	GEL
11:49:59 Tue 02-Feb-10	13882-2 BH		Sample	GEL
11:52:44 Tue 02-Feb-10	13882-2 BH	d	Duplicate of 49	GEL
11:55:28 Tue 02-Feb-10	13882-3 BH		Sample	GEL
11:58:12 Tue 02-Feb-10	13882-3 BH	s	Spike - 1 of 51	GEL
12:00:56 Tue 02-Feb-10	13882-4 BH		Sample	GEL
12:03:41 Tue 02-Feb-10	QC Std 1		QC Std #1	
12:06:24 Tue 02-Feb-10	QC Std 4		QC Std #4	
12:09:08 Tue 02-Feb-10	13486-10		Sample	
12:11:52 Tue 02-Feb-10	QC Std 1		QC Std #1	
12:14:35 Tue 02-Feb-10	QC Std 4		QC Std #4	
12:39:53 Tue 02-Feb-10	13892-12	x2	Sample	
12:42:38 Tue 02-Feb-10	13892-12	x2s	Spike - 1 of 59	
12:45:23 Tue 02-Feb-10	13892-19 FH		Sample	
12:48:08 Tue 02-Feb-10	13892-19 BH		Sample	
12:50:52 Tue 02-Feb-10	13892-20 FH		Sample	
12:53:37 Tue 02-Feb-10	13892-20 BH		Sample	
12:56:21 Tue 02-Feb-10	13882-3 FH		Sample	gel
12:59:05 Tue 02-Feb-10	13882-3 FH	s	Spike - 1 of 65	gel
13:01:49 Tue 02-Feb-10	13882-2 BH		Sample	gel
13:04:34 Tue 02-Feb-10	13882-2 BH	d	Duplicate of 67	gel
13:07:17 Tue 02-Feb-10	QC Std 1		QC Std #1	
13:10:00 Tue 02-Feb-10	QC Std 4		QC Std #4	
13:12:44 Tue 02-Feb-10	13882-3 BH		Sample	gel
13:15:29 Tue 02-Feb-10	13882-3 BH	s	Spike - 1 of 71	gel
13:18:13 Tue 02-Feb-10	13882-3 BH	x2	Sample	gel
13:20:59 Tue 02-Feb-10	13882-3 BH	x2s	Spike - 1 of 73	gel
13:23:44 Tue 02-Feb-10	13882-4 BH		Sample	gel
13:26:29 Tue 02-Feb-10	QC Std 1		QC Std #1	
13:29:12 Tue 02-Feb-10	QC Std 4		QC Std #4	
13:49:19 Tue 02-Feb-10	LRB FH		Sample	GEL
13:52:02 Tue 02-Feb-10	LRB FH	s	Spike - 4 of 78	GEL
13:54:46 Tue 02-Feb-10	LRB BH		Sample	GEL
13:57:30 Tue 02-Feb-10	LRB BH	s	Spike - 4 of 80	GEL
14:00:14 Tue 02-Feb-10	13892-10	x2	Sample	
14:02:59 Tue 02-Feb-10	13892-11	x2	Sample	
14:05:43 Tue 02-Feb-10	13892-11	x2d	Duplicate of 83	recom.
14:08:28 Tue 02-Feb-10	13882-1 BH	x2	Sample	GEL
14:11:12 Tue 02-Feb-10	13882-2 BH	x2	Sample	GEL
14:13:57 Tue 02-Feb-10	13882-2 BH	x2d	Duplicate of 86	GEL
14:16:40 Tue 02-Feb-10	QC Std 1		QC Std #1	
14:19:24 Tue 02-Feb-10	QC Std 4		QC Std #4	
14:22:08 Tue 02-Feb-10	13881		Sample	
14:24:53 Tue 02-Feb-10	13881		Duplicate of 90	
16:01:34 Tue 02-Feb-10	Blank		Blank	
16:04:18 Tue 02-Feb-10	QC Std 8		Sample	

Analyst: -AEH--

2/3/2010

13882, 13892, 13881

A/S Loc.	Dilution	Sample ID	Client	Type	Weight (g)	Prep Vol (ml)
5		QC Std 2		Sample		
14		13892-4		Sample		100x2
15		13892-5		Sample		100x2
16	d	13892-5		Duplicate of 3		100x2
17		13892-6		Sample		100x2
18	s	13892-6		Spike - 1 of 5		100x2
19		13892-10		Sample		100x2
20		13892-11		Sample		100x2
21	d	13892-11		Duplicate of 8		100x2
22		13892-12		Sample		100x2
23	s	13892-12		Spike - 1 of 10		100x2
24		13892-16		Sample		100x2
25		13892-17		Sample		100x2
26	d	13892-17		Duplicate of 13		100x2
27		13892-18		Sample		100x2
28	s	13892-18		Spike - 1 of 15		100x2
29		13892-19		Sample		100x2
30		13892-20		Sample		100x2
31		LRB FH		GEL		100
32	s	LRB FH		GEL		100
33		13882-1 FH		GEL		100
34		13882-2 FH		GEL		100
35	d	13882-2 FH		GEL		100
36		13882-3 FH		GEL		100
37	s	13882-3 FH		GEL		100
38		LRB BH		GEL		50x2
39	s	LRB BH		GEL		50x2
40		13882-1 BH		GEL		50x2
41		13882-2 BH		GEL		50x2
42	d	13882-2 BH		GEL		50x2
43		13882-3 BH		GEL		50x2
44	s	13882-3 BH		GEL		50x2
45		13882-4 BH		GEL		50x2
46		13882-10		Sample		
47	x2	13892-12		Sample		100x2
48	x2s	13892-12		Spike - 1 of 36		100x2
49		13892-19 FH		Sample		
50		13892-19 BH		Sample		
51		13892-20 FH		Sample		
52		13892-20 BH		Sample		
53		13882-3 FH		gel		100
54	s	13882-3 FH		gel		100
55		13882-2 BH		gel		50x2
56	d	13882-2 BH		gel		50x2
57		13882-3 BH		gel		50x2
58	s	13882-3 BH		gel		50x2
59	x2	13882-3 BH		gel		50x2
60	x2s	13882-3 BH		gel		50x2
61		13882-4 BH		gel		50x2
62		LRB FH		GEL		100
63	s	LRB FH		GEL		100
64		LRB BH		GEL		50x2
65	s	LRB BH		GEL		50x2
66	x2	13892-10		Sample		100x2
67	x2	13892-11		Sample		100x2
68	x2d	13892-11		Duplicate of 56		100x2
69	x2	13882-1 BH		GEL		50x2
70	x2	13882-2 BH		GEL		50x2
71	x2d	13882-2 BH		GEL		50x2
72		13881		Sample		
73		13881		Duplicate of 61		

Spike are post at 0.02ml of 25ppm spiking solutions lot 021410-ABCD & F in a final volume of 10mL

Submitted for QC by:	Date/Time:	QC Review By:	Date/Time:
AEH	2/3/10 9:58	DAJ	2/3/10 11:00
Re-Test Required:	No	Yes:	Comments:
Resubmitted for QC by:	Date/Time:	QC Review:	By:
			Date/Time:

Sample/Batch Report

ash
0.9.10

User Name: icp

Computer Name: D8D4DWD1

Sample File: C:\elandata_icp\Sample\13.sam

Report Date/Time: Tuesday, February 09, 2010 10:04:31

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
5		QC Std 2	Checksample	Sample					
7		QC Std 5		Sample					
12		13882-4 fn	Gel	Sample					
13	x500	13885-11	Checksample	Sample					
14	x500	13885-11	Checksample	Sample					
15	x500	13885-11	Checksample	Sample					
16	x500	13885-11	Checksample	Sample					
17	x500	9060-1	Checksample	Sample					
18	x500	9060-1	Checksample	Sample					
19	x500	8173-1	Checksample	Sample					
20	x500	8173-1	Checksample	Sample					

Dataset Report

User Name: icp
Computer Name: D8D4DWD1
Dataset File Path: C:\elandata_icp\Dataset\020910-1\
Report Date/Time: Tuesday, February 09, 2010 10:04:27

ack
2.9.10

Autosampler Position: 5

The Dataset

Time	Sample ID	Batch ID	Read Type	Description	Init. Quant	Prep. Vol.	Aliquot. Vol.	Diluted V
09:09:50 Tue 09-Feb-10	Blank		Blank					
09:11:31 Tue 09-Feb-10	Standard 1		Standard #1					
09:13:13 Tue 09-Feb-10	Standard 2		Standard #2					
09:14:55 Tue 09-Feb-10	Standard 3		Standard #3					
09:16:37 Tue 09-Feb-10	QC Std 1		QC Std #1					
09:18:19 Tue 09-Feb-10	QC Std 2		QC Std #2					
09:20:01 Tue 09-Feb-10	QC Std 3		QC Std #3					
09:21:42 Tue 09-Feb-10	QC Std 4		QC Std #4					
09:23:24 Tue 09-Feb-10	QC Std 5		QC Std #5					
09:25:05 Tue 09-Feb-10	QC Std 6		QC Std #6					
09:26:48 Tue 09-Feb-10	QC Std 7		QC Std #7					
09:28:31 Tue 09-Feb-10	QC Std 2		Sample	Checksample				
09:30:14 Tue 09-Feb-10	13882-4 fh		Sample	Gel				
09:31:58 Tue 09-Feb-10	13885-11	x500	Sample	Checksample				
09:33:40 Tue 09-Feb-10	13885-11	x500	Sample	Checksample				
09:35:21 Tue 09-Feb-10	13885-11	x500	Sample	Checksample				
09:37:02 Tue 09-Feb-10	13885-11	x500	Sample	Checksample				
09:38:43 Tue 09-Feb-10	9060-1	x500	Sample	Checksample				
09:40:24 Tue 09-Feb-10	9060-1	x500	Sample	Checksample				
09:42:06 Tue 09-Feb-10	8173-1	x500	Sample	Checksample				
09:43:47 Tue 09-Feb-10	8173-1	x500	Sample	Checksample				
09:45:28 Tue 09-Feb-10	QC Std 1		QC Std #1					
09:47:10 Tue 09-Feb-10	QC Std 4		QC Std #4					
09:53:33 Tue 09-Feb-10	Blank		Blank					
09:55:15 Tue 09-Feb-10	QC Std 2		Sample	Checksample				
09:56:57 Tue 09-Feb-10	QC Std 5		Sample					
10:00:11 Tue 09-Feb-10	Blank		Blank					
10:01:53 Tue 09-Feb-10	QC Std 2		Sample	Checksample				

elementOne
Analyst:-AEH--

ICP-MS RUN SHEET
2/9/2010

Job Number:
13882,13885,9060
8173

A/S Loc.	Dilution	Sample ID	Client	Type	Weight (g)	Prep Vol (ml)
5		QC Std 2	Checksample	Sample		
7		QC Std 5		Sample		
12		13882-4 fh	Gel	Sample		100
13	x500	13885-11	Checksample	Sample	0.2119	40
14	x500	13885-11	Checksample	Sample	0.2494	40
15	x500	13885-11	Checksample	Sample	0.2283	40
16	x500	13885-11	Checksample	Sample	0.2025	40
17	x500	9080-1	Checksample	Sample	0.2112	40
18	x500	9080-1	Checksample	Sample	0.2105	40
19	x500	8173-1	Checksample	Sample	0.227	40
20	x500	8173-1	Checksample	Sample	0.2017	40

Spikes are post at 0.02mL of 25ppm spiking solutions lot 021410-ABCD & F in a final volume of 10mL				
Submitted for QC by:	Date/Time:		QC Review By:	Date/Time:
AEH	2/9/10 10:21		DBL	2/10/10 10:25
Re-Test Required:	No: ✓	Yes:	Comments:	
Resubmitted for QC by:	Date/Time:		QC Review:	By: Date/Time:

ICP Standards and QC Standards Values Table

Element or Test	Mass	Symbol	Std.#1 ppb	Std.#2 ppb	Std.#3 ppb	QC #1	QC #2	QC #3	QC #4	QC #6 A	QC #7 AB	QC #8 .25	QC #9 LRB	QC #10 LRB+	QC #11 LRB+
<i>Lithium</i>	6	<i>Li</i>													
Lithium	7	Li	1	100	500	0	1	250	100				0	50	100
Beryllium	9	Be	1	100	500	0	1	250	100			0.25	0	50	100
Boron	10	B	1	50	100	0	1	250	100				0	50	100
Boron	11	B	1	50	100	0	1	250	100				0	50	100
Sodium	23	Na	20	1100	5500	0	21	2500	1100				0	718	
Magnesium	24	Mg	20	1100	5500	0	21	2500	1100				0	550	
Magnesium	25	Mg	20	1100	5500	0	21	2500	1100				0	550	
Aluminum	27	Al	1	100	500	0	1	250	100				0	50	100
Phosphorus	31	P	20	1000	5000	0	20	2500	1000				0	200	
Potassium	39	K	20	1100	5500	0	21	2500	1100				0	500	
Calcium	44	Ca	50	1100	5500	0	21	2500	1100				0	550	
<i>Scandium</i>	45														
Titanium	47	Ti	1	100	500	0	1	250	100				0	50	100
Titanium	48	Ti	1	100	500	0	1	250	100				0	50	100
Vanadium	51	V	1	100	500	0	1	250	100	0	20		0	50	100
Vanadium	51	V	1	100	500	0	1	250	100	0	20		0	50	100
Chromium	52	Cr	1	100	500	0	1	250	100		10		0	50	100
Chromium	53	Cr	1	100	500	0	1	250	100		10		0	50	100
Iron	54	Fe	20	1100	5500	0	21	2500	1100	0			0		
Manganese	55	Mn	1	100	500	0	1	250	100	0	10		0	50	100
Iron	57	Fe	20	1100	5500	0	21	2500	1100	0			0		
Cobalt	59	Co	1	100	500	0	1	250	100	0	20		0	50	100
Nickel	60	Ni	1	100	500	0	1	250	100	0	20		0	50	100
Copper	63	Cu	1	100	500	0	1	250	100	0	10		0	50	100
Copper	65	Cu	1	100	500	0	1	250	100	0	10		0	50	100
Zinc	66	Zn	1	100	500	0	1	250	100	0	10		0	50	100
Zinc	67	Zn	1	100	500	0	1	250	100	0	10		0	50	100
Zinc	68	Zn	1	100	500	0	1	250	100	0	10		0	50	100
Germanium	72	Ge	1	100	500	0	1	250	100				0	50	100
Arsenic	75	As	1	100	500	0	1	250	100	0	10		0	50	100
Selenium	77	Se	1	100	500	0	1	250	100	0	10		0	50	100
Selenium	82	Se	1	100	500	0	1	250	100	0	10		0	50	100
Strontium	88	Sr	1	100	500	0	1	250	100	0			0	50	100
Molybdenum	95	Mo	1	100	500	0	1	250	100				0	50	100
Molybdenum	97	Mo	1	100	500	0	1	250	100				0	50	100
Molybdenum	98	Mo	1	100	600	0	1	200	100				0	50	100
<i>Rhodium</i>	103														
Silver	107	Ag	1	100	500	0	1	250	100	0	10		0	50	100
Silver	109	Ag	1	100	500	0	1	250	100	0	10		0	50	100
Cadmium	111	Cd	1	100	500	0	1	250	100	0	5		0	50	100
Cadmium	114	Cd	1	100	500	0	1	250	100	0	5		0	50	100
Tin	118	Sn	1	100	500	0	1	250	100	0			0	50	100
Antimony	121	Sb	1	100	500	0	1	250	100	0			0	50	100
Antimony	123	Sb	1	100	500	0	1	250	100	0			0	50	100
Tellurium	128	Te	1	100	500	0	1	250	100				0	50	100
<i>Cesium</i>	133														
Barium	135	Ba	1	100	500	0	1	250	100	0			0	50	100
Barium	137	Ba	1	100	500	0	1	250	100	0			0	50	100
Lanthanum	139	La	1	100	500	0	1	250	100				0	50	100
Tantalum	159	Ta	1	100	500	0	1	250	100				0	50	100
Platinum	195	Pt	1	100	500	0	1	250	100				0	50	100
Gold	181	Au	1	100	500	0	1	250	100				0	50	100
Thallium	205	Tl	1	100	500	0	1	250	100	0			0	50	100
Lead	208	Pb	1	100	500	0	1	250	100	0			0	50	100
Bismuth	209	Bi	1	100	500	0	1	250	100				0	50	100
Thorium	232	Th	1	100	500	0	1	250	100				0	50	100
Uranium	238	U	1	100	500	0	1	250	100				0	50	100
<i>Krypton</i>	83														

elementOne

elementOne

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Blank

Sample Date: Tuesday, February 02, 2010 09:24:18

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Mean Report Unit
>	Li	6	122330.5		ppb
<	Be	9	25.3		ppb
<	P	31	9531.7		ppb
	Sc	45	156849.9		ppb
	Cr	52	6714.1		ppb
	Cr	53	22459.4		ppb
	Mn	55	2579		ppb
	Co	59	301.7		ppb
	Ni	60	3417.6		ppb
	As	75	160.7		ppb
	Se	77	1075.7		ppb
	Se	82	0		ppb
>	Rh	103	332427.9		ppb
	Ag	107	405		ppb
	Ag	109	394.3		ppb
	Cd	111	5.9		ppb
<	Cd	114	140.5		ppb
<	Sb	121	3116.5		ppb
	Sb	123	2410.5		ppb
>	Hg	165	767134.3		ppb
<	Pb	208	6874.4		ppb
	Kr	83	98.2		mg/L

Method 8020 & 200.8 Metals Summary Report

Sample ID: Standard 1

Sample Date: Tuesday, February 02, 2010 09:27:01

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Mean Report Unit
>	Li	6	122271.8		ppb
<	Be	9	715	1.07301	ppb
<	P	31	15724.8	20.04338	ppb
	Sc	45	158725		ppb
	Cr	52	13538.1	1.09271	ppb
	Cr	53	23490.3	1.31171	ppb
	Mn	55	12093.7	0.94347	ppb
	Co	59	8761.9	1.12129	ppb
	Ni	60	2063.9	-0.84402	ppb
	As	75	1551.4	1.06294	ppb
	Se	77	1173.4	0.82884	ppb
	Se	82	197.4	1.27	ppb
>	Rh	103	332827.3		ppb
	Ag	107	8640.8	1.11142	ppb
	Ag	109	8369.2	1.12629	ppb
	Cd	111	2118.6	1.0637	ppb
<	Cd	114	5208.4	1.1311	ppb
<	Sb	121	7334	0.74842	ppb
	Sb	123	5749.3	0.76413	ppb
>	Hg	165	777972.7		ppb
<	Pb	208	40450.1	0.95712	ppb
	Kr	83	-15.4		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 2

Sample Date: Tuesday, February 02, 2010 09:29:44

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	123478.4		ppb
-	Be	9	65842.3	101.38412	ppb
-	P	31	306835.7	979.1881	ppb
	Sc	45	157537.7		ppb
	Cr	52	646338.4	104.17205	ppb
	Cr	53	97729.8	100.46154	ppb
	Mn	55	1036911.1	104.16747	ppb
	Co	59	776468.5	104.44146	ppb
	Ni	60	162821.5	100.63752	ppb
	As	75	126858.1	98.33467	ppb
	Se	77	12313.3	98.0697	ppb
	Se	82	15055.9	98.26816	ppb
>	Rh	103	327809.3		ppb
	Ag	107	768588.9	105.25062	ppb
	Ag	109	738874.2	105.88969	ppb
	Cd	111	197246.3	100.83474	ppb
-	Cd	114	468478.2	106.1264	ppb
-	Sb	121	507520.4	91.15788	ppb
	Sb	123	391436.7	90.8976	ppb
>	Ho	165	769982.7		ppb
-	Pb	208	3635648.5	104.81899	ppb
	Kr	83	-10933.3		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 3

Sample Date: Tuesday, February 02, 2010 09:32:28

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	120721.2		ppb
-	Be	9	317055.4	499.72303	ppb
-	P	31	1494825.5	5004.1622	ppb
	Sc	45	156336.1		ppb
	Cr	52	3003246.4	499.1654	ppb
	Cr	53	389344.7	499.90707	ppb
	Mn	55	4848171	499.16662	ppb
	Co	59	3625907.1	499.11147	ppb
	Ni	60	777468.6	499.87618	ppb
	As	75	630348.7	500.33294	ppb
	Se	77	57152.8	500.3864	ppb
	Se	82	74934.9	500.34583	ppb
>	Rh	103	320458.1		ppb
	Ag	107	3560601.9	498.94965	ppb
	Ag	109	3400414.4	498.82181	ppb
	Cd	111	955644.5	499.83292	ppb
-	Cd	114	2151461.9	498.77446	ppb
-	Sb	121	2717674.8	501.76893	ppb
	Sb	123	2102254.5	501.82095	ppb
>	Ho	165	752703.9		ppb
-	Pb	208	16895438	499.03629	ppb
	Kr	83	-51614.9		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Da: Tuesday, February 02, 2010 09:35:15

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	122445.4		ppb
	Be	9	443.3	0.64612	ppb
	P	31	11859.1	6.55043	ppb
	Sc	45	161845.3		ppb
	Cr	52	11288.7	0.68655	ppb
	Cr	53	23212	0.19315	ppb
	Mn	55	9336.9	0.64635	ppb
	Co	59	5289.4	0.64299	ppb
	Ni	60	4150	0.38815	ppb
	As	75	2109.3	1.44864	ppb
	Se	77	1406.1	2.52339	ppb
	Se	82	518.8	3.25034	ppb
>	Rh	103	341291.7		ppb
	Ag	107	202213.2	26.54749	ppb
	Ag	109	192665.5	26.46911	ppb
	Cd	111	1191.5	0.58174	ppb
	Cd	114	2850.3	0.58857	ppb
	Sb	121	124572.1	21.20487	ppb
	Sb	123	95645.9	21.04548	ppb
>	Hg	165	796832.6		ppb
	Pb	208	30467.4	0.65168	ppb
	Kr	83	101		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 2

Sample Da: Tuesday, February 02, 2010 09:37:59

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	123953		ppb
	Be	9	708.4	1.04792	ppb
	P	31	16296.6	20.71867	ppb
	Sc	45	161096.2		ppb
	Cr	52	13927.3	1.10554	ppb
	Cr	53	23756	0.96204	ppb
	Mn	55	11924.5	0.90016	ppb
	Co	59	8545.7	1.06739	ppb
	Ni	60	1920.9	-0.95962	ppb
	As	75	1821.5	1.23805	ppb
	Se	77	1194.1	0.77295	ppb
	Se	82	203.4	1.27892	ppb
>	Rh	103	340472.3		ppb
	Ag	107	28721.4	3.72966	ppb
	Ag	109	27298.2	3.70835	ppb
	Cd	111	2082.7	1.02248	ppb
	Cd	114	5040.7	1.06866	ppb
	Sb	121	32662	5.24382	ppb
	Sb	123	25133.5	5.21377	ppb
>	Hg	165	782205.7		ppb
	Pb	208	39822.4	0.93304	ppb
	Kr	83	21		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 3

Sample Date: Tuesday, February 02, 2010 09:40:43

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	130405.4		ppb
< Be	9	169585.9	247.38449	ppb
< P	31	809992	2434.1422	ppb
Sc	45	169905.8		ppb
Cr	52	1714058.8	256.95382	ppb
Cr	53	223351.1	244.99552	ppb
Mn	55	2620545.3	243.702	ppb
Co	59	1962594.4	244.09967	ppb
Ni	60	424927.3	245.79634	ppb
As	75	341486	244.88333	ppb
Se	77	31203.8	242.15401	ppb
Se	82	39922	240.88299	ppb
> Rh	103	354613.1		ppb
Ag	107	2082975.1	263.77748	ppb
Ag	109	1992913.8	264.10088	ppb
Cd	111	514929.9	243.35161	ppb
< Cd	114	1213296.8	254.12189	ppb
< Sb	121	1595220.7	268.85836	ppb
Sb	123	1231904.1	268.42086	ppb
> Ho	165	823918.1		ppb
< Pb	208	9033253	243.6652	ppb
Kr	83	-28145.1		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Tuesday, February 02, 2010 09:43:26

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	123055.7		ppb
< Be	9	66798.5	103.22183	ppb
< P	31	316925	983.82328	ppb
Sc	45	159401		ppb
Cr	52	659716.5	103.4052	ppb
Cr	53	99090.2	98.65777	ppb
Mn	55	1068696.7	104.41742	ppb
Co	59	796434.9	104.19034	ppb
Ni	60	166940.2	100.34721	ppb
As	75	131743.1	99.32323	ppb
Se	77	13150.2	102.22511	ppb
Se	82	15840.6	100.55472	ppb
> Rh	103	337049.4		ppb
Ag	107	850551	113.28695	ppb
Ag	109	814935.8	113.59166	ppb
Cd	111	201701.6	100.28396	ppb
< Cd	114	482980.9	106.41168	ppb
< Sb	121	531638.5	94.68523	ppb
Sb	123	410237.8	94.45594	ppb
> Ho	165	776858.7		ppb
< Pb	208	3697946.9	105.67413	ppb
Kr	83	-11127.9		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 5

Sample Date: Tuesday, February 02, 2010 09:46:10

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	124495.2		ppb
+	Be	9	32288.2	49.29847	ppb
+	P	31	69338.8	191.98062	ppb
+	Sc	45	158255		ppb
+	Cr	52	323732.4	50.40158	ppb
+	Cr	53	60163.8	48.65785	ppb
+	Mn	55	514020.9	50.29383	ppb
+	Co	59	378476.3	49.69128	ppb
+	Ni	60	79587.3	46.92382	ppb
+	As	75	64654.8	48.87859	ppb
+	Se	77	6820.6	48.80956	ppb
+	Se	82	7779.8	49.58549	ppb
>	Rh	103	335677.6		ppb
+	Ag	107	406052.2	54.14165	ppb
+	Ag	109	388114.8	54.29158	ppb
+	Cd	111	96061.2	47.9548	ppb
+	Cd	114	229917.8	50.84646	ppb
+	Sb	121	337196.6	59.7411	ppb
+	Sb	123	262489.1	60.12907	ppb
>	Ho	165	778005.4		ppb
+	Pb	208	1777383	50.61524	ppb
	Kr	83	139.2		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 6

Sample Date: Tuesday, February 02, 2010 09:48:53

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	143272.9		ppb
+	Be	9	64	0.04599	ppb
+	P	31	14392103	47913.368	ppb
+	Sc	45	170333.1		ppb
+	Cr	52	13185.6	1.0947	ppb
+	Cr	53	23330.6	1.94691	ppb
+	Mn	55	35514.6	3.36296	ppb
+	Co	59	8482	1.115	ppb
+	Ni	60	4117.6	0.50246	ppb
+	As	75	914.5	0.59602	ppb
+	Se	77	1608.8	4.94489	ppb
+	Se	82	107.1	0.70982	ppb
>	Rh	103	324020.7		ppb
+	Ag	107	2637.1	0.31159	ppb
+	Ag	109	2469.7	0.30312	ppb
+	Cd	111	791.4	0.40645	ppb
+	Cd	114	7425	1.67131	ppb
+	Sb	121	29687.2	4.74294	ppb
+	Sb	123	23065.7	4.76699	ppb
>	Ho	165	779231.5		ppb
+	Pb	208	15425.8	0.24122	ppb
	Kr	83	20.1		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 7

Sample Da Tuesday, February 02, 2010 09:51:38

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	154914.4		ppb
	Be	9	32.7	0.00069	ppb
	P	31	14506663	47748.272	ppb
	Sc	45	174786.9		ppb
	Cr	52	78465.5	11.70374	ppb
	Cr	53	30987.1	11.76553	ppb
	Mn	55	137002.3	13.54649	ppb
	Co	59	152194.4	20.44768	ppb
	Ni	60	32639.2	18.48028	ppb
	As	75	13310	10.21005	ppb
	Se	77	2736.7	14.61779	ppb
	Se	82	1497.8	9.77975	ppb
>	Rh	103	327701.4		ppb
	Ag	107	73605.7	10.06142	ppb
	Ag	109	71570.7	10.20984	ppb
	Cd	111	10534.1	5.38445	ppb
	Cd	114	30520.1	6.88677	ppb
	Sb	121	9025.8	1.00773	ppb
	Sb	123	6866.7	0.98193	ppb
>	Ho	165	798443.2		ppb
	Pb	208	6940.7	-0.00595	ppb
	Kr	83	109.6		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 2

Sample Da Tuesday, February 02, 2010 10:02:39

Sample De Testar

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	155670.7		ppb
	Be	9	805	0.94402	ppb
	P	31	18963.8	22.55003	ppb
	Sc	45	189387.1		ppb
	Cr	52	20109.6	1.72816	ppb
	Cr	53	37924.6	13.76917	ppb
	Mn	55	12485.9	0.82156	ppb
	Co	59	8736.9	0.96747	ppb
	Ni	60	1921.5	-1.08764	ppb
	As	75	1696.9	1.00484	ppb
	Se	77	2242.3	7.5018	ppb
	Se	82	209.8	1.17406	ppb
>	Rh	103	382510.4		ppb
	Ag	107	9713.2	1.0859	ppb
	Ag	109	9259.4	1.08195	ppb
	Cd	111	2426.5	1.05987	ppb
	Cd	114	5812.7	1.09733	ppb
	Sb	121	10093.3	1.02968	ppb
	Sb	123	7692.4	1.00612	ppb
>	Ho	165	880703.7		ppb
	Pb	208	46570.3	0.97625	ppb
	Kr	83	-1.6		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Date: Tuesday, February 02, 2010 10:39:38

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	153450.1		ppb
Be	9	71	0.04868	ppb
P	31	8202.4	-7.38642	ppb
Sc	45	184176.7		ppb
Cr	52	7165.2	-0.0603	ppb
Cr	53	23634.7	-2.03186	ppb
Mn	55	3617.4	0.06169	ppb
Co	59	820.4	0.05627	ppb
Ni	60	3259.9	-0.33217	ppb
As	75	515.8	0.22629	ppb
Se	77	809.7	-3.08894	ppb
Se	82	35	0.19958	ppb
> Rh	103	375773.1		ppb
Ag	107	728	0.03229	ppb
Ag	109	716	0.03381	ppb
Cd	111	220.3	0.09523	ppb
Cd	114	517.7	0.07093	ppb
Sb	121	2259.9	-0.21499	ppb
Sb	123	1730.7	-0.21844	ppb
> Ho	165	897777.8		ppb
Pb	208	10193.3	0.05315	ppb
Kr	83	141.8		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Tuesday, February 02, 2010 10:42:21

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	147276.7		ppb
Be	9	72929.1	94.14507	ppb
P	31	338326.8	946.75128	ppb
Sc	45	182234.6		ppb
Cr	52	711935.8	100.6874	ppb
Cr	53	108707.8	97.39484	ppb
Mn	55	1214235.4	107.08503	ppb
Co	59	842023.8	99.41711	ppb
Ni	60	172320.4	93.34017	ppb
As	75	146445.3	99.6527	ppb
Se	77	14663.8	102.95216	ppb
Se	82	18417.4	105.52009	ppb
> Rh	103	373467.6		ppb
Ag	107	870491.3	104.63185	ppb
Ag	109	836192.6	105.19263	ppb
Cd	111	233396.1	104.73438	ppb
Cd	114	551201.4	109.61096	ppb
Sb	121	591801.9	92.78432	ppb
Sb	123	453826.4	91.98437	ppb
> Ho	165	882109.6		ppb
Pb	208	4105062.3	103.30569	ppb
Kr	83	-12933.4		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Blank

Sample Date: Tuesday, February 02, 2010 10:52:46

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	149520.1		ppb
+	Be	9	17.3		ppb
+	P	31	7793		ppb
	Sc	45	180135.5		ppb
	Cr	52	5811.2		ppb
	Cr	53	24748		ppb
	Mn	55	875		ppb
	Co	59	170.7		ppb
	Ni	60	124		ppb
	As	75	537.6		ppb
	Se	77	831.7		ppb
	Se	82	31.5		ppb
>	Rh	103	377279.2		ppb
	Ag	107	1965.2		ppb
	Ag	109	1867.5		ppb
	Cd	111	32.4		ppb
+	Cd	114	120.2		ppb
+	Sb	121	6571.1		ppb
	Sb	123	4978.6		ppb
>	Hg	165	888964		ppb
+	Pb	208	2992.2		ppb
	Kr	83	164.4		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 2

Sample Date: Tuesday, February 02, 2010 10:55:30

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	145618.6		ppb
+	Be	9	752.4	0.96089	ppb
+	P	31	14931.9	21.59425	ppb
	Sc	45	176651.5		ppb
	Cr	52	12756.3	1.03225	ppb
	Cr	53	26383.6	2.72596	ppb
	Mn	55	12498.6	1.04715	ppb
	Co	59	8169.3	0.96143	ppb
	Ni	60	1802.2	0.94749	ppb
	As	75	1737.6	0.84144	ppb
	Se	77	927.4	0.91781	ppb
	Se	82	213	1.062	ppb
>	Rh	103	367183.2		ppb
	Ag	107	8990.4	0.86578	ppb
	Ag	109	8625.1	0.87143	ppb
	Cd	111	2234.2	1.00529	ppb
+	Cd	114	5311.8	1.05092	ppb
+	Sb	121	10954.9	0.72511	ppb
	Sb	123	8353.3	0.72128	ppb
>	Hg	165	869286.9		ppb
+	Pb	208	41702.5	0.99207	ppb
	Kr	83	21.1		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-1 FH

Sample Date: Tuesday, February 02, 2010 11:22:36

Sample Description: GEL

Concentration Results

	Analyte	Mass	Meas.	Intens	Conc.	Meas	Report Unit
>	Li	6	140902				ppb
+	Be	9	63.7	0.06473			ppb
+	P	31	57464.2	140.47341			ppb
	Sc	45	198328.4				ppb
	Cr	52	380693.3	52.51426			ppb
	Cr	53	51458.6	30.28797			ppb
	Mn	55	224042.4	19.33671			ppb
	Co	59	7951.5	0.90137			ppb
	Ni	60	99945.3	54.20999			ppb
	As	75	15507.3	9.99015			ppb
	Se	77	3913.2	23.05557			ppb
	Se	82	5088.2	28.38958			ppb
>	Rh	103	380973.3				ppb
	Cd	111	5633.1	2.46515			ppb
+	Cd	114	11664.6	2.25271			ppb
+	Sb	121	47622.8	6.07698			ppb
	Sb	123	36583.6	6.04939			ppb
>	Ho	165	932617.2				ppb
+	Pb	208	398422.3	9.4267			ppb
	Kr	83	-302.6				mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-2 FH

Sample Date: Tuesday, February 02, 2010 11:25:20

Sample Description: GEL

Concentration Results

	Analyte	Mass	Meas.	Intens	Conc.	Meas	Report Unit
>	Li	6	147053.2				ppb
+	Be	9	36	0.0246			ppb
+	P	31	84709.5	212.45089			ppb
	Sc	45	192925.7				ppb
	Cr	52	204848.4	27.25049			ppb
	Cr	53	28015.5	2.77335			ppb
	Mn	55	513086.2	43.41458			ppb
	Co	59	19924.5	2.23668			ppb
	Ni	60	371512.5	197.28627			ppb
	As	75	20910.3	13.2972			ppb
	Se	77	8994.8	59.68489			ppb
	Se	82	12058.2	66.06199			ppb
>	Rh	103	389464.7				ppb
	Cd	111	8632.8	3.69983			ppb
+	Cd	114	18922.1	3.58575			ppb
+	Sb	121	30470	3.5129			ppb
	Sb	123	23451.8	3.5117			ppb
>	Ho	165	933527.5				ppb
+	Pb	208	385158.7	9.10138			ppb
	Kr	83	-677.2				mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-2 FH

Sample Date: Tuesday, February 02, 2010 11:28:05

Sample Description: GEL

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	150228.1		ppb
-	Be	9	42	0.03122	ppb
-	P	31	83806.6	206.9396	ppb
	Sc	45	193005.5		ppb
	Cr	52	204737	26.8748	ppb
	Cr	53	27640.3	1.95546	ppb
	Mn	55	514125.3	42.93907	ppb
	Co	59	19882.4	2.20285	ppb
	Ni	60	367936.2	192.8564	ppb
	As	75	20420.9	12.80608	ppb
	Se	77	9095.9	59.56123	ppb
	Se	82	12075.5	65.29605	ppb
>	Rh	103	394567.6		ppb
	Cd	111	8741.7	3.69891	ppb
-	Cd	114	18577	3.47368	ppb
-	Sb	121	30186	3.39503	ppb
	Sb	123	23119.5	3.37309	ppb
>	Ho	165	949458.1		ppb
-	Pb	208	380730.8	8.8446	ppb
	Kr	83	-665.6		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Date: Tuesday, February 02, 2010 11:30:49

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	151833.4		ppb
-	Be	9	12	-0.00708	ppb
-	P	31	7717.6	-0.44324	ppb
	Sc	45	181895.8		ppb
	Cr	52	9948.1	0.57102	ppb
	Cr	53	24597.6	-0.46772	ppb
	Mn	55	1501.5	0.05349	ppb
	Co	59	128	-0.00514	ppb
	Ni	60	634.7	0.2766	ppb
	As	75	568	0.01644	ppb
	Se	77	979.4	1.04104	ppb
	Se	82	140.6	0.61046	ppb
>	Rh	103	381225.5		ppb
	Ag	107	2045.6	0.00718	ppb
	Ag	109	1904.2	0.00225	ppb
	Cd	111	31.1	-0.00073	ppb
-	Cd	114	96.6	-0.00485	ppb
-	Sb	121	1712.5	-0.76687	ppb
	Sb	123	1280.2	-0.75456	ppb
>	Ho	165	910675.2		ppb
-	Pb	208	1943.4	-0.02743	ppb
	Kr	83	156.3		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Tuesday, February 02, 2010 11:33:32

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	145556.8		ppb
Be	9	72229.1	94.36941	ppb
P	31	333721	979.61924	ppb
Sc	45	174723.6		ppb
Cr	52	683673.1	100.69835	ppb
Cr	53	105645.1	99.46696	ppb
Mn	55	1170831.8	107.44565	ppb
Co	59	816354.7	100.15128	ppb
Ni	60	168156.9	96.70981	ppb
As	75	139923.3	98.66891	ppb
Se	77	14374.7	107.95873	ppb
Se	82	17753.5	105.48033	ppb
> Rh	103	359455.7		ppb
Ag	107	833397.3	103.89865	ppb
Ag	109	807574.6	105.37157	ppb
Cd	111	225221.5	104.98912	ppb
Cd	114	533059.3	110.12622	ppb
Sb	121	570287.2	91.0654	ppb
Sb	123	439309	90.70346	ppb
> Ho	165	862324.7		ppb
Pb	208	4022664	103.68694	ppb
Kr	83	-12287.6		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-1 BH

Sample Date: Tuesday, February 02, 2010 11:47:15

Sample Description: GEL

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
> Li	6	165729.7		ppb
Be	9	39	0.02267	ppb
P	31	69755.4	165.41597	ppb
Sc	45	200469.7		ppb
Cr	52	303989.6	39.61846	ppb
Cr	53	45506.3	20.85327	ppb
Mn	55	457273.9	37.54863	ppb
Co	59	84366	9.25641	ppb
Ni	60	14028.8	7.16814	ppb
As	75	15751	9.63497	ppb
Se	77	22679.6	155.2158	ppb
Se	82	29847.1	159.00674	ppb
> Rh	103	401287.3		ppb
Cd	111	7107.4	2.95419	ppb
Cd	114	14974.3	2.74919	ppb
Sb	121	27055.5	2.9496	ppb
Sb	123	20540.2	2.8971	ppb
> Ho	165	946386.3		ppb
Pb	208	111063.9	2.53546	ppb
Kr	83	1113.3		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-2 BH

Sample Da: Tuesday, February 02, 2010 11:49:59

Sample De: GEL

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	165901.6		ppb
	Be	9	29.7	0.01201	ppb
	P	31	78196.6	192.35942	ppb
	Sc	45	200000		ppb
	Cr	52	145173	18.89095	ppb
	Cr	53	26004.5	0.25055	ppb
	Mn	55	170450.4	14.23535	ppb
	Co	59	32711.1	3.65002	ppb
	Ni	60	17206.9	8.9872	ppb
	As	75	13642	8.46286	ppb
	Se	77	16864	116.26342	ppb
	Se	82	22398.4	121.70113	ppb
>	Rh	103	393152		ppb
	Cd	111	5686.2	2.40982	ppb
	Cd	114	12340.9	2.30803	ppb
	Sb	121	21965.5	2.18723	ppb
	Sb	123	17068.9	2.22283	ppb
>	Ho	165	950642.8		ppb
	Pb	208	199122.7	4.58414	ppb
	Kr	83	479.2		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-2 BH

Sample Da: Tuesday, February 02, 2010 11:52:44

Sample De: GEL

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	166231.2		ppb
	Be	9	20	0.00089	ppb
	P	31	77065	189.88043	ppb
	Sc	45	199286.5		ppb
	Cr	52	143874.9	18.76843	ppb
	Cr	53	25602	-0.11169	ppb
	Mn	55	168574.6	14.12094	ppb
	Co	59	32642.2	3.6536	ppb
	Ni	60	22045	11.56786	ppb
	As	75	13763.7	8.57171	ppb
	Se	77	16597.5	114.68328	ppb
	Se	82	22152.6	120.74316	ppb
>	Rh	103	392014.8		ppb
	Cd	111	5761.6	2.44862	ppb
	Cd	114	12143	2.27727	ppb
	Sb	121	20506.8	1.98552	ppb
	Sb	123	15664.2	1.96938	ppb
>	Ho	165	946703.6		ppb
	Pb	208	224171	5.19215	ppb
	Kr	83	557.3		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-3 BH

Sample Da: Tuesday, February 02, 2010 11:55:28

Sample De: GEL

Concentration Results

	Analyte	Mass	Meas.	Intent	Conc.	Meas	Report	Unit
>	Li		6	161911.2				ppb
>	Be		9	14	-0.00559			ppb
>	P		31	64732.4	157.7696			ppb
>	Sc		45	193732.9				ppb
>	Cr		52	216476.6	28.95831			ppb
>	Cr		53	32862.6	8.32553			ppb
>	Mn		55	186599.4	15.79785			ppb
>	Co		59	36148.4	4.08915			ppb
>	Ni		60	14867.1	7.85957			ppb
>	As		75	9753.5	6.03517			ppb
>	Se		77	14523.9	100.64518			ppb
>	Se		82	19354.4	106.551			ppb
>	Rh		103	388029				ppb
>	Cd		111	10008	4.30802			ppb
>	Cd		114	22949.6	4.36828			ppb
>	Sb		121	6405.3	-0.0666			ppb
>	Sb		123	4874.7	-0.06104			ppb
>	Ho		165	926556.3				ppb
>	Pb		208	59023.6	1.342			ppb
>	Kr		83	310.5				mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-3 BH

Sample Da: Tuesday, February 02, 2010 11:58:12

Sample De: GEL

Concentration Results

	Analyte	Mass	Meas.	Intent	Conc.	Meas	Report	Unit
>	Li		6	163164				ppb
>	Be		9	31314.5	36.48173			ppb
>	P		31	65229.2	159.9598			ppb
>	Sc		45	194300.6				ppb
>	Cr		52	567499.9	77.61382			ppb
>	Cr		53	73851.8	54.74089			ppb
>	Mn		55	186807.8	15.892			ppb
>	Co		59	35889.4	4.0791			ppb
>	Ni		60	14917.2	7.92315			ppb
>	As		75	66006.2	43.119			ppb
>	Se		77	14261.8	99.21834			ppb
>	Se		82	19184.5	106.1076			ppb
>	Rh		103	386226.2				ppb
>	Cd		111	107245.7	46.52164			ppb
>	Cd		114	256428.3	49.29345			ppb
>	Sb		121	311703.5	45.32685			ppb
>	Sb		123	238615.5	44.8703			ppb
>	Ho		165	935612.5				ppb
>	Pb		208	2159910	51.26869			ppb
>	Kr		83	287.8				mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Date: Tuesday, February 02, 2010 12:03:41

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	164023.2		ppb
+	Be	9	21	0.00213	ppb
-	P	31	8233.1	0.00674	ppb
	Sc	45	196782		ppb
	Cr	52	8459.3	0.31099	ppb
	Cr	53	27211.3	1.17398	ppb
	Mn	55	960.7	0.00302	ppb
	Co	59	170	-0.00114	ppb
	Ni	60	174.7	0.02268	ppb
	As	75	399.4	-0.1071	ppb
	Se	77	1182.1	2.17718	ppb
	Se	82	67.7	0.18502	ppb
>	Rh	103	398465.7		ppb
	Ag	107	778.7	-0.14619	ppb
	Ag	109	719	-0.14787	ppb
	Cd	111	73.4	0.01646	ppb
-	Cd	114	100.7	-0.00492	ppb
-	Sb	121	3784.8	-0.47204	ppb
	Sb	123	2868.1	-0.46211	ppb
>	Ho	165	946768.2		ppb
-	Pb	208	1833.4	-0.03193	ppb
	Kr	83	181.3		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Tuesday, February 02, 2010 12:06:24

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	155955.8		ppb
-	Be	9	77330.9	94.2992	ppb
-	P	31	358234.5	979.19001	ppb
	Sc	45	191937		ppb
	Cr	52	745401.1	102.25438	ppb
	Cr	53	114388.5	100.52707	ppb
	Mn	55	1255419.8	107.28394	ppb
	Co	59	868397.6	99.20887	ppb
	Ni	60	180967.8	96.92316	ppb
	As	75	153241.6	100.63515	ppb
	Se	77	15570	108.93587	ppb
	Se	82	19281.6	106.68802	ppb
>	Rh	103	386031.2		ppb
	Ag	107	893294.6	103.7033	ppb
	Ag	109	861577.9	104.67855	ppb
	Cd	111	241523.6	104.83206	ppb
-	Cd	114	570572.8	109.76692	ppb
-	Sb	121	607678.7	91.92682	ppb
	Sb	123	465512.4	91.05788	ppb
>	Ho	165	909996.7		ppb
-	Pb	208	4163641	101.69542	ppb
	Kr	83	-13041.1		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Date: Tuesday, February 02, 2010 12:11:52

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	152556.8		ppb
-	Be	9	598.7	0.7185	ppb
-	P	31	8015.2	0.30573	ppb
	Sc	45	187126.3		ppb
	Cr	52	13094.3	1.0028	ppb
	Cr	53	25010.4	-0.11316	ppb
	Mn	55	11711.6	0.93262	ppb
	Co	59	6554.6	0.73476	ppb
	Ni	60	1823.9	0.91698	ppb
	As	75	3300.2	1.82964	ppb
	Se	77	1571.1	5.42251	ppb
	Se	82	849.2	4.56185	ppb
>	Rh	103	382792.8		ppb
	Ag	107	12679.6	1.25265	ppb
	Ag	109	12206.6	1.26505	ppb
	Cd	111	1934.5	0.83195	ppb
-	Cd	114	4611.6	0.87062	ppb
-	Sb	121	24659.5	2.79298	ppb
	Sb	123	18888.8	2.77712	ppb
>	Ho	165	896788.7		ppb
-	Pb	208	60772.4	1.42771	ppb
	Kr	83	175.8		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Tuesday, February 02, 2010 12:14:35

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	153925.5		ppb
-	Be	9	75873.3	93.74216	ppb
-	P	31	355469.1	985.00243	ppb
	Sc	45	187327.1		ppb
	Cr	52	733381.9	101.97053	ppb
	Cr	53	111548.9	99.0322	ppb
	Mn	55	1246576.9	107.97667	ppb
	Co	59	868074.8	100.52134	ppb
	Ni	60	178408.1	96.85539	ppb
	As	75	149569.8	99.55563	ppb
	Se	77	15410.1	109.30159	ppb
	Se	82	19138.1	107.33153	ppb
>	Rh	103	380862.7		ppb
	Ag	107	890103.6	104.73102	ppb
	Ag	109	858496.5	105.7175	ppb
	Cd	111	237318	104.41092	ppb
-	Cd	114	560893.2	109.37535	ppb
-	Sb	121	618364.5	94.63643	ppb
	Sb	123	476554.3	94.30946	ppb
>	Ho	165	899596.2		ppb
-	Pb	208	4145866.5	102.42924	ppb
	Kr	83	-13184.8		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-3 FH

Sample Da Tuesday, February 02, 2010 12:56:21

Sample De: gel

Concentration Results

	Analyte	Mass	Meas.	Intens	Conc.	Meas	Report Unit
>	Li		6	183525.2			ppb
-	Be		9	49.7	0.03575		ppb
-	P		31	74619.7	170.50283		ppb
	Sc		45	201932.8			ppb
	Cr		52	628403.2	79.4787		ppb
	Cr		53	79720.4	54.57488		ppb
	Mn		55	447720.9	35.30499		ppb
	Co		59	8489	0.87658		ppb
	Ni		60	231176.1	114.43231		ppb
	As		75	24838.4	14.78603		ppb
	Se		77	9046.5	55.56791		ppb
	Se		82	12127.4	61.93649		ppb
>	Rh		103	417746.2			ppb
	Cd		111	6001.9	2.3932		ppb
-	Cd		114	13758.1	2.42304		ppb
-	Sb		121	59918.5	7.40833		ppb
	Sb		123	46135.6	7.3911		ppb
>	Ho		165	988181.2			ppb
-	Pb		208	329478.8	7.34108		ppb
	Kr		83	-437			mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-3 FH

Sample Da Tuesday, February 02, 2010 12:59:05

Sample De: gel

Concentration Results

	Analyte	Mass	Meas.	Intens	Conc.	Meas	Report Unit
>	Li		6	158872.4			ppb
-	Be		9	34128.3	41.35813		ppb
-	P		31	235671.8	619.75809		ppb
	Sc		45	193233.1			ppb
	Cr		52	981960.7	131.48811		ppb
	Cr		53	121294.8	104.84689		ppb
	Mn		55	1049039.1	87.34997		ppb
	Co		59	430973.1	47.97372		ppb
	Ni		60	316408.7	165.18497		ppb
	As		75	93771.3	59.86307		ppb
	Se		77	15018.4	102.02567		ppb
	Se		82	19916.7	107.39435		ppb
>	Rh		103	396141.1			ppb
	Cd		111	113510.7	48.00937		ppb
-	Cd		114	268831.6	50.38928		ppb
-	Sb		121	387093.4	55.7901		ppb
	Sb		123	297554.3	55.4597		ppb
>	Ho		165	947928.1			ppb
-	Pb		208	2466945.7	57.80872		ppb
	Kr		83	-326.6			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Date: Tuesday, February 02, 2010 13:07:17

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	160739		ppb
-	Be	9	58.3	0.04651	ppb
-	P	31	7486.4	-0.77604	ppb
	Sc	45	186238		ppb
	Cr	52	7367.3	0.22491	ppb
	Cr	53	22242.9	-2.77271	ppb
	Mn	55	1857.2	0.08664	ppb
	Co	59	637.7	0.05493	ppb
	Ni	60	333.7	0.11577	ppb
	As	75	562	0.01822	ppb
	Se	77	1034.7	1.57363	ppb
	Se	82	173.1	0.80678	ppb
>	Rh	103	375516.5		ppb
	Ag	107	3292.3	0.15984	ppb
	Ag	109	3074.5	0.1522	ppb
	Cd	111	207.1	0.07793	ppb
-	Cd	114	424.6	0.06027	ppb
-	Sb	121	2050.6	-0.71381	ppb
	Sb	123	1593	-0.89144	ppb
>	Ho	165	906583.3		ppb
-	Pb	208	5677.7	0.06411	ppb
	Kr	83	174.5		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Tuesday, February 02, 2010 13:10:00

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	155729.3		ppb
-	Be	9	76245.1	93.11799	ppb
-	P	31	341802.2	985.85709	ppb
	Sc	45	181818.2		ppb
	Cr	52	701672	101.54837	ppb
	Cr	53	104485	95.84396	ppb
	Mn	55	1190208.8	107.31204	ppb
	Co	59	831205.4	100.18408	ppb
	Ni	60	171806	97.08269	ppb
	As	75	143265.5	99.25583	ppb
	Se	77	14347.6	105.7386	ppb
	Se	82	18292.1	106.78581	ppb
>	Rh	103	365890.7		ppb
	Ag	107	845710.4	103.57675	ppb
	Ag	109	814122	104.34896	ppb
	Cd	111	229352.5	105.03408	ppb
-	Cd	114	546850.9	111.00162	ppb
-	Sb	121	572573.6	89.67733	ppb
	Sb	123	440991.2	89.3141	ppb
>	Ho	165	878615.6		ppb
-	Pb	208	4045175.2	102.32938	ppb
	Kr	83	-12555.8		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-3 BH

Sample Da: Tuesday, February 02, 2010 13:18:13

Sample De: gel

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	150973.8		ppb
+	Be	9	31.3	0.01741	ppb
+	P	31	36242.1	91.6375	ppb
	Sc	45	170656.7		ppb
	Cr	52	105025.5	15.50786	ppb
	Cr	53	26417.3	4.94989	ppb
	Mn	55	90006	8.57846	ppb
	Co	59	17549.9	2.23482	ppb
	Ni	60	7334.3	4.35205	ppb
	As	75	5490.1	3.70854	ppb
	Se	77	7998.2	60.26737	ppb
	Se	82	10286.5	63.93075	ppb
>	Rh	103	343312.2		ppb
	Cd	111	5158.9	2.5037	ppb
+	Cd	114	12082.5	2.59096	ppb
+	Sb	121	10176.1	0.65209	ppb
	Sb	123	7762.6	0.64995	ppb
>	Ho	165	843390.9		ppb
+	Pb	208	30148.3	0.72033	ppb
	Kr	83	196.5		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-3 BH

Sample Da: Tuesday, February 02, 2010 13:20:59

Sample De: gel

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	151246.6		ppb
+	Be	9	31361.3	39.41674	ppb
+	P	31	168444.9	519.57799	ppb
	Sc	45	169566.5		ppb
	Cr	52	408550.6	64.18479	ppb
	Cr	53	61987.6	51.92895	ppb
	Mn	55	605109.3	59.46524	ppb
	Co	59	373711.3	49.11715	ppb
	Ni	60	80443.3	49.54264	ppb
	As	75	60499.7	45.51166	ppb
	Se	77	12501.3	100.15476	ppb
	Se	82	16162.1	102.88234	ppb
>	Rh	103	335504.6		ppb
	Cd	111	95058	47.46926	ppb
+	Cd	114	228135.2	50.48567	ppb
+	Sb	121	284414.9	47.3829	ppb
	Sb	123	218750.7	47.13163	ppb
>	Ho	165	817490.4		ppb
+	Pb	208	1899132.2	51.59665	ppb
	Kr	83	210.4		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-4 BH

Sample Date: Tuesday, February 02, 2010 13:23:44

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	151781.3		ppb
>	Be	9	40	0.02865	ppb
>	P	31	68483.7	189.53832	ppb
>	Sc	45	174591.5		ppb
>	Cr	52	28901.5	3.60169	ppb
>	Cr	53	9481.3	-16.70482	ppb
>	Mn	55	22387.9	2.04261	ppb
>	Co	59	884.7	0.0934	ppb
>	Ni	60	6763.2	3.94327	ppb
>	As	75	522.8	0.02075	ppb
>	Se	77	164	-4.94487	ppb
>	Se	82	104.6	0.46844	ppb
>	Rh	103	349055.5		ppb
>	Cd	111	312.9	0.13727	ppb
>	Cd	114	362.5	0.05265	ppb
>	Sb	121	19383.7	2.08905	ppb
>	Sb	123	15027.7	2.11686	ppb
>	Ho	165	866327.1		ppb
>	Pb	208	26107.1	0.59626	ppb
>	Kr	83	100.7		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Date: Tuesday, February 02, 2010 13:26:29

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	164216.8		ppb
>	Be	9	70.3	0.05888	ppb
>	P	31	7716.9	-1.44404	ppb
>	Sc	45	194568.7		ppb
>	Cr	52	7560.1	0.18788	ppb
>	Cr	53	23469.6	-2.99494	ppb
>	Mn	55	1657.5	0.06064	ppb
>	Co	59	687.4	0.05612	ppb
>	Ni	60	289.3	0.08205	ppb
>	As	75	383.9	-0.11845	ppb
>	Se	77	1033.7	1.08773	ppb
>	Se	82	60.1	0.14241	ppb
>	Rh	103	399632.5		ppb
>	Ag	107	3829.5	0.19625	ppb
>	Ag	109	3701.1	0.20243	ppb
>	Cd	111	195.2	0.06769	ppb
>	Cd	114	476.9	0.06509	ppb
>	Sb	121	3463.7	-0.51777	ppb
>	Sb	123	2676.1	-0.49726	ppb
>	Ho	165	943608.6		ppb
>	Pb	208	5439.7	0.05355	ppb
>	Kr	83	179.8		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Tuesday, February 02, 2010 13:29:12

Sample Description:

Concentration Results

	Analyte	Mass	Meas.	Intens	Conc.	Meas	Report	Unit
>	Li	6	157332.4					ppb
	Be	9	78172.7		94.52093			ppb
	P	31	367094.4		972.6879			ppb
	Sc	45	195940					ppb
	Cr	52	761756.7		101.30847			ppb
	Cr	53	113951.7		96.11356			ppb
	Mn	55	1289977.3		106.87671			ppb
	Co	59	903951.8		100.12393			ppb
	Ni	60	188494.1		97.8808			ppb
	As	75	156515.4		99.65316			ppb
	Se	77	15942		108.10381			ppb
	Se	82	19837.3		106.42192			ppb
>	Rh	103	398181.5					ppb
	Ag	107	916109.9		103.11076			ppb
	Ag	109	878428.4		103.47293			ppb
	Cd	111	247056.6		103.96443			ppb
	Cd	114	585238.5		109.15865			ppb
	Sb	121	625147.9		92.73762			ppb
	Sb	123	478781.3		91.83389			ppb
>	Ho	165	927911.1					ppb
	Pb	208	4207944.7		100.78896			ppb
	Kr	83	-12823.8					mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: LRB FH

Sample Date: Tuesday, February 02, 2010 13:49:19

Sample Description: GEL

Concentration Results

	Analyte	Mass	Meas.	Intens	Conc.	Meas	Report	Unit
>	Li	6	166784.4					ppb
	Be	9	110		0.10111			ppb
	P	31	6053.4		-7.38813			ppb
	Sc	45	160217.4					ppb
	Cr	52	7396.7		0.07792			ppb
	Cr	53	9591.9		-19.05343			ppb
	Mn	55	4462.9		0.25893			ppb
	Co	59	1262.1		0.10649			ppb
	Ni	60	704.4		0.26383			ppb
	As	75	649.5		0.01373			ppb
	Se	77	276		-4.50131			ppb
	Se	82	144		0.52235			ppb
>	Rh	103	438212.6					ppb
	Ag	107	7682.7		0.55148			ppb
	Ag	109	7149.8		0.53239			ppb
	Cd	111	323.1		0.10864			ppb
	Cd	114	764.2		0.10531			ppb
	Sb	121	7088.2		-0.05178			ppb
	Sb	123	5512.5		-0.02539			ppb
>	Ho	165	1010223.8					ppb
	Pb	208	15361.2		0.26367			ppb
	Kr	83	129.2					mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: LRB FH

Sample Da Tuesday, February 02, 2010 13:52:02

Sample De GEL

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	154249.7		ppb
	Be	9	35532.6	43.7978	ppb
	P	31	78478	185.81818	ppb
	Sc	45	212712.9		ppb
	Cr	52	370324.4	47.75115	ppb
	Cr	53	52165.3	27.26264	ppb
	Mn	55	624345	50.56978	ppb
	Co	59	430636.3	46.65556	ppb
	Ni	60	92285.4	46.84762	ppb
	As	75	73890.5	45.83122	ppb
	Se	77	8851.9	41.80141	ppb
	Se	82	8832.3	46.25534	ppb
>	Rh	103	406975.3		ppb
	Ag	107	14935.1	1.41252	ppb
	Ag	109	14026.3	1.38555	ppb
	Cd	111	114240.9	47.0293	ppb
	Cd	114	271388.8	49.51214	ppb
	Sb	121	357160.4	51.33376	ppb
	Sb	123	275130	51.14118	ppb
>	Ho	165	949144.2		ppb
	Pb	208	2079752.1	48.66127	ppb
	Kr	83	150.8		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: LRB BH

Sample Da Tuesday, February 02, 2010 13:54:46

Sample De GEL

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	164416.5		ppb
	Be	9	95.3	0.08673	ppb
	P	31	7203.5	-4.31855	ppb
	Sc	45	194773.9		ppb
	Cr	52	7245.6	0.07187	ppb
	Cr	53	8165.1	-20.35693	ppb
	Mn	55	4287.7	0.25057	ppb
	Co	59	987.1	0.08058	ppb
	Ni	60	741.7	0.28669	ppb
	As	75	605.1	-0.0067	ppb
	Se	77	247	-4.66738	ppb
	Se	82	107.8	0.35431	ppb
>	Rh	103	432485.4		ppb
	Ag	107	4059.2	0.18754	ppb
	Ag	109	3841.1	0.18474	ppb
	Cd	111	262.8	0.08733	ppb
	Cd	114	647.3	0.08738	ppb
	Sb	121	12350.1	0.69501	ppb
	Sb	123	9451.9	0.69772	ppb
>	Ho	165	997175.9		ppb
	Pb	208	13254.4	0.21954	ppb
	Kr	83	163.5		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: LRB BH

Sample Da Tuesday, February 02, 2010 13:57:30

Sample De GEL

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	147833.8		ppb
	Be	9	30440.9	39.14144	ppb
	P	31	78979.7	193.61568	ppb
	Sc	45	194472.5		ppb
	Cr	52	371789.3	49.45072	ppb
	Cr	53	50526.7	27.21789	ppb
	Mn	55	619493	51.72949	ppb
	Co	59	430191.1	48.05062	ppb
	Ni	60	100974.4	52.85469	ppb
	As	75	63328.3	40.45628	ppb
	Se	77	5268.5	31.83797	ppb
	Se	82	6723.9	36.26415	ppb
>	Rh	103	394787.1		ppb
	Ag	107	11676.9	1.09658	ppb
	Ag	109	11095.8	1.09034	ppb
	Cd	111	101919.4	43.25221	ppb
	Cd	114	242915.2	45.69354	ppb
	Sb	121	340302.9	49.7491	ppb
	Sb	123	260853.4	49.31361	ppb
>	Ho	165	932523.8		ppb
	Pb	208	2132749.4	50.79236	ppb
	Kr	83	138.9		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-1 BH

Sample Da Tuesday, February 02, 2010 14:08:28

Sample De GEL

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	145694.5		ppb
	Be	9	20.7	0.00504	ppb
	P	31	36288	93.14545	ppb
	Sc	45	168422		ppb
	Cr	52	139568.6	21.13872	ppb
	Cr	53	30803.4	10.98145	ppb
	Mn	55	203995.7	19.77438	ppb
	Co	59	38369.1	4.96897	ppb
	Ni	60	6597.4	3.95549	ppb
	As	75	7457.8	5.23018	ppb
	Se	77	10875.2	85.29045	ppb
	Se	82	13779.9	86.72759	ppb
>	Rh	103	339246.2		ppb
	Cd	111	3458	1.69384	ppb
	Cd	114	7609.3	1.64253	ppb
	Sb	121	10979	0.77212	ppb
	Sb	123	8563	0.80826	ppb
>	Ho	165	848497.3		ppb
	Pb	208	64861.1	1.62521	ppb
	Kr	83	533.3		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-2 BH

Sample Date: Tuesday, February 02, 2010 14:11:12

Sample Description: GEL

Concentration Results

	Analyte	Mass	Meas.	Intens	Conc.	Meas	Report	Unit
>	Li	6	154101.4					ppb
+	Be	9	35	0.02114				ppb
+	P	31	42343.7	105.28922				ppb
	Sc	45	179508.1					ppb
	Cr	52	69992.1	9.60874				ppb
	Cr	53	15332.6	-9.92805				ppb
	Mn	55	87622.3	7.99905				ppb
	Co	59	15480.8	1.88651				ppb
	Ni	60	8540	4.86502				ppb
	As	75	6323.5	4.13033				ppb
	Se	77	8250.1	59.50874				ppb
	Se	82	10916.2	65.02728				ppb
>	Rh	103	358191					ppb
	Cd	111	2993.9	1.38644				ppb
+	Cd	114	6304.9	1.28383				ppb
+	Sb	121	10386.3	0.60976				ppb
	Sb	123	7932.5	0.61033				ppb
>	Ho	165	882049.1					ppb
+	Pb	208	101723.3	2.49052				ppb
	Kr	83	218.3					mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-2 BH

Sample Date: Tuesday, February 02, 2010 14:13:57

Sample Description: GEL

Concentration Results

	Analyte	Mass	Meas.	Intens	Conc.	Meas	Report	Unit
>	Li	6	156038.7					ppb
+	Be	9	16.7	-0.00172				ppb
+	P	31	42692.3	105.66234				ppb
	Sc	45	180404.4					ppb
	Cr	52	69963.5	9.5494				ppb
	Cr	53	14810.1	-10.65869				ppb
	Mn	55	82498	7.48678				ppb
	Co	59	15428.7	1.87008				ppb
	Ni	60	8813.6	4.99597				ppb
	As	75	6746.2	4.40462				ppb
	Se	77	8420.6	60.51505				ppb
	Se	82	10960.6	64.94832				ppb
>	Rh	103	360082.1					ppb
	Cd	111	2944.7	1.35605				ppb
+	Cd	114	6203.7	1.25608				ppb
+	Sb	121	10205.7	0.57764				ppb
	Sb	123	7857.8	0.59142				ppb
>	Ho	165	884186.1					ppb
+	Pb	208	102062.3	2.4928				ppb
	Kr	83	265.8					mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Da: Tuesday, February 02, 2010 14:16:40

Sample Description:

Concentration Results

	Analyte	Mass	Meas.	Intent	Conc.	Meas	Report	Unit
>	Li	6	154409.9					ppb
<	Be	9	42.3			0.02999		ppb
<	P	31	7402.7			-0.60623		ppb
	Sc	45	182339.5					ppb
	Cr	52	6898.6			0.17761		ppb
	Cr	53	22950.9			-1.43808		ppb
	Mn	55	1471.8			0.05566		ppb
	Co	59	500			0.04006		ppb
	Ni	60	253			0.07436		ppb
	As	75	508.2			-0.01114		ppb
	Se	77	974.1			1.25989		ppb
	Se	82	142.4			0.65027		ppb
>	Rh	103	368472.2					ppb
	Ag	107	3432			0.18428		ppb
	Ag	109	3343.9			0.19379		ppb
	Cd	111	159.8			0.05859		ppb
<	Cd	114	350			0.04709		ppb
<	Sb	121	1723.5			-0.75664		ppb
	Sb	123	1357.5			-0.73261		ppb
>	Hg	165	888608.9					ppb
<	Pb	208	5046.2			0.0514		ppb
	Kr	83	140.7					mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Da: Tuesday, February 02, 2010 14:19:24

Sample Description:

Concentration Results

	Analyte	Mass	Meas.	Intent	Conc.	Meas	Report	Unit
>	Li	6	150467					ppb
<	Be	9	75244.1			95.11559		ppb
<	P	31	339071.3			981.21779		ppb
	Sc	45	183562.1					ppb
	Cr	52	695950.8			101.0574		ppb
	Cr	53	104202.5			95.92858		ppb
	Mn	55	1180712.2			106.81725		ppb
	Co	59	828947.9			100.25552		ppb
	Ni	60	171570			97.27611		ppb
	As	75	143272.3			99.59885		ppb
	Se	77	14586.7			107.99075		ppb
	Se	82	18376.7			107.64513		ppb
>	Rh	103	384649.6					ppb
	Ag	107	839353.7			103.14907		ppb
	Ag	109	805675.2			103.6214		ppb
	Cd	111	231342.2			106.30625		ppb
<	Cd	114	548329.3			111.67446		ppb
<	Sb	121	588434.4			91.77088		ppb
	Sb	123	450440.2			90.84189		ppb
>	Hg	165	882789.1					ppb
<	Pb	208	4023648.1			101.30772		ppb
	Kr	83	-12638.1					mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Blank

Sample Date: Tuesday, February 02, 2010 16:01:34

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Mean Report Unit
>	Li	6	106965.8		ppb
-	Be	9	35		ppb
-	P	31	6696.8		ppb
	Sc	45	161101.1		ppb
	Cr	52	213799.2		ppb
	Cr	53	46258.2		ppb
	Mn	55	6978.5		ppb
	Co	59	766		ppb
	Ni	60	514		ppb
	As	75	376.9		ppb
	Se	77	1252.8		ppb
	Se	82	-40.7		ppb
>	Rh	103	359298.5		ppb
	Ag	107	2471.7		ppb
	Ag	109	2336		ppb
	Cd	111	132.8		ppb
-	Cd	114	322.9		ppb
-	Sb	121	2070.6		ppb
	Sb	123	1626.8		ppb
>	Ho	165	818892.9		ppb
-	Pb	208	10912		ppb
	Kr	83	210.8		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 8

Sample Date: Tuesday, February 02, 2010 16:04:18

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Mean Report Unit
>	Li	6	105048.2		ppb
-	Be	9	170.7	0.24667	ppb
-	P	31	8682.1	7.19602	ppb
	Sc	45	153924.5		ppb
	Cr	52	105163.7	-15.42545	ppb
	Cr	53	33859	-13.11735	ppb
	Mn	55	10103.2	0.33063	ppb
	Co	59	3019.5	0.29412	ppb
	Ni	60	13456.3	7.81902	ppb
	As	75	609.4	0.1849	ppb
	Se	77	1171.4	-0.20647	ppb
	Se	82	-12.1	0.16677	ppb
>	Rh	103	343072.6		ppb
	Ag	107	4383.1	0.26482	ppb
	Ag	109	4185	0.26777	ppb
	Cd	111	759.6	0.30907	ppb
-	Cd	114	1759.6	0.31421	ppb
-	Sb	121	2343	0.05638	ppb
	Sb	123	1854.9	0.06053	ppb
>	Ho	165	798573.4		ppb
-	Pb	208	31875.3	0.59116	ppb
	Kr	83	183.6		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Blank

Sample Date: Monday, February 08, 2010 14:54:02

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	205202.4		ppb
-	Be	9	4		ppb
-	Al	27	9529.3		ppb
-	P	31	15167		ppb
-	Sc	45	225301.8		ppb
-	V-1	51	113950.5		ppb
-	V	51	110043.5		ppb
-	Cr	52	10395.3		ppb
-	Cr	53	38488.7		ppb
-	Mn	55	990.7		ppb
-	Co	59	118		ppb
-	Ni	60	493.7		ppb
-	Cu	63	171.7		ppb
-	Cu	65	110.7		ppb
-	Zn	66	715.7		ppb
-	Zn	67	7490.8		ppb
-	Zn	68	1446.8		ppb
-	As	75	120.5		ppb
-	Se	77	1746.8		ppb
-	Se	82	36.3		ppb
-	Mo	95	109.3		ppb
-	Mo	97	60.7		ppb
-	Mo	98	183.4		ppb
>	Rh	103	488325.2		ppb
-	Ag	107	146		ppb
-	Ag	109	162		ppb
-	Cd	111	3.4		ppb
-	Cd	114	16.4		ppb
-	Sb	121	1204.7		ppb
-	Sb	123	956.3		ppb
-	Ba	135	34		ppb
-	Ba	137	50.3		ppb
>	Hg	165	1033218.3		ppb
-	Tl	205	180.3		ppb
-	Pb	208	753.3		ppb
-	Kr	83	152		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 1

Sample Date: Monday, February 08, 2010 14:57:31

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas. Report Unit
Li	6	208658.4		ppb
Be	9	1061.1	1.14024	ppb
Al	27	19057	1.27959	ppb
P	31	25685.9	23.63744	ppb
Sc	45	229426.7		ppb
V-1	51	128837.4	1.39089	ppb
V	51	136815.4	1.27825	ppb
Cr	52	21104.8	1.15405	ppb
Cr	53	40540.2	1.72133	ppb
Mn	55	18987.8	1.1519	ppb
Co	59	12510.6	1.14197	ppb
Ni	60	3076.9	1.13291	ppb
Cu	63	6084.7	1.19822	ppb
Cu	65	2979.2	1.17523	ppb
Zn	66	3184.6	1.38375	ppb
Zn	67	8411.2	2.95465	ppb
Zn	68	3363	1.39413	ppb
As	75	2176.2	1.07358	ppb
Se	77	1960.2	1.19848	ppb
Se	82	307.7	1.17455	ppb
Mo	95	3485	1.00871	ppb
Mo	97	2241.3	1.01414	ppb
Mo	98	5853.2	1.04531	ppb
Rh	103	489541.7		ppb
Ag	107	12950.6	1.19511	ppb
Ag	109	12348.7	1.18856	ppb
Cd	111	3114.3	1.0802	ppb
Cd	114	7513.4	1.13738	ppb
Sb	121	8002.5	0.85748	ppb
Sb	123	6149.5	0.83974	ppb
Ba	135	2799.1	1.10554	ppb
Ba	137	4876	1.11428	ppb
Hf	165	1032364.4		ppb
Tl	205	38318.6	1.11186	ppb
Pb	208	51698.9	1.1303	ppb
Kr	83	-27.6		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 2

Sample Date: Monday, February 08, 2010 15:01:01

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	204988.9		ppb
Be	9	94773.5	104.07494	ppb
Al	27	770600.2	106.68501	ppb
P	31	479583.9	1090.4487	ppb
Sc	45	225287.9		ppb
V-1	51	1183650.6	106.1831	ppb
V	51	222895.1	106.48374	ppb
Cr	52	971017.1	107.98875	ppb
Cr	53	152315.4	105.03494	ppb
Mn	55	1606869.7	106.97528	ppb
Co	59	1128685.8	108.23096	ppb
Ni	60	234515.3	106.85805	ppb
Cu	63	513223.5	108.19542	ppb
Cu	65	253366.7	107.96525	ppb
Zn	66	183073.6	106.45651	ppb
Zn	67	38719.3	107.23997	ppb
Zn	68	141648.5	106.39274	ppb
As	75	190565.7	103.52917	ppb
Se	77	19266.7	104.44467	ppb
Se	82	22990.9	103.465	ppb
Mo	95	324505.4	100.87062	ppb
Mo	97	205215.8	99.28723	ppb
Mo	98	534438.6	102.52899	ppb
Rh	103	470398.8		ppb
Ag	107	1110460	107.87404	ppb
Ag	109	1074526.2	109.06153	ppb
Cd	111	285133.8	103.0089	ppb
Cd	114	683214.1	107.86645	ppb
Sb	121	756439	96.57273	ppb
Sb	123	585774.3	95.85905	ppb
Ba	135	253678.1	102.82106	ppb
Ba	137	442248.1	103.51391	ppb
Ho	165	1018302.6		ppb
Tl	205	3423056.3	101.18547	ppb
Pb	208	4620898	103.93311	ppb
Kr	83	-15253.9		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 3

Sample Date: Monday, February 08, 2010 15:04:32

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	197288.5		ppb
<	Be	9	437496.7	499.18473	ppb
<	Al	27	3455425.8	498.66244	ppb
	P	31	2071218.6	498.18957	ppb
	Sc	45	213967.2		ppb
	V-1	51	4990659.3	498.7626	ppb
	V	51	9730177.2	498.70269	ppb
	Cr	52	4305133.9	498.40194	ppb
	Cr	53	566052.2	498.99157	ppb
	Mn	55	7250126.3	498.60464	ppb
	Co	59	5031730.1	498.35352	ppb
	Ni	60	1058149.4	498.62812	ppb
	Cu	63	2288796.2	498.36052	ppb
	Cu	65	1132424.8	498.4066	ppb
	Zn	66	828157	498.70793	ppb
	Zn	67	148798.6	498.5481	ppb
	Zn	68	638155.5	498.72066	ppb
	As	75	889569.1	499.29402	ppb
	Se	77	83021.4	499.11067	ppb
	Se	82	107318.3	499.30665	ppb
	Mo	95	1557156.6	499.82586	ppb
	Mo	97	1000980.3	500.14253	ppb
	Mo	98	2521005.3	499.49411	ppb
>	Rh	103	455522		ppb
	Ag	107	4968204.4	498.4248	ppb
	Ag	109	4753263.5	498.18732	ppb
	Cd	111	1338550.9	499.39806	ppb
<	Cd	114	3057625.7	498.42644	ppb
<	Sb	121	3811319.7	500.68574	ppb
	Sb	123	2974338.9	500.82851	ppb
	Ba	135	1198567.7	499.43558	ppb
	Ba	137	2075105.2	499.29699	ppb
>	Ho	165	990610.4		ppb
	Tl	205	16451532	499.76268	ppb
<	Pb	208	21591411	499.21312	ppb
	Kr	83	-74082.8		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Date: Monday, February 08, 2010 15:08:02

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	202743.1		ppb
	Be	9	150.7	0.16279	ppb
	Al	27	10030.2	0.11279	ppb
	P	31	15798.4	2.63929	ppb
	Sc	45	220869.6		ppb
	V-1	51	119097.2	0.88067	ppb
	V	51	118704.2	0.61553	ppb
	Cr	52	12292	0.25119	ppb
	Cr	53	39374.4	1.96911	ppb
	Mn	55	4255	0.21845	ppb
	Co	59	2152.9	0.19436	ppb
	Ni	60	685.7	0.09423	ppb
	Cu	63	1331.4	0.24451	ppb
	Cu	65	617	0.21639	ppb
	Zn	66	951	0.15016	ppb
	Zn	67	7982.2	2.5319	ppb
	Zn	68	1834.5	0.32933	ppb
	As	75	1588.6	0.79706	ppb
	Se	77	2029.9	2.0229	ppb
	Se	82	338.6	1.36589	ppb
	Mo	95	27778.8	8.61123	ppb
	Mo	97	17263.3	8.33183	ppb
	Mo	98	45655.1	8.73268	ppb
>	Rh	103	472272.6		ppb
	Ag	107	185337.4	18.07268	ppb
	Ag	109	180335.3	18.37559	ppb
	Cd	111	474.9	0.16952	ppb
	Cd	114	1205.5	0.18679	ppb
	Sb	121	91424.2	11.61856	ppb
	Sb	123	71488.9	11.64535	ppb
	Ba	135	495	0.18772	ppb
	Ba	137	928.4	0.20635	ppb
>	Hf	165	1014672.2		ppb
	Tl	205	9177	0.26725	ppb
	Pb	208	12327.6	0.26178	ppb
	Kr	83	215.4		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 2

Sample Date: Monday, February 08, 2010 15:11:33

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas. Report Unit
> Li	6	202392.5		ppb
Be	9	957.4	1.06057	ppb
Al	27	18959.8	1.24827	ppb
P	31	25778.2	23.41487	ppb
Sc	45	226741.3		ppb
V-1	51	131043.8	1.50919	ppb
V	51	136586.2	1.21986	ppb
Cr	52	21131.2	1.14017	ppb
Cr	53	41972.4	2.71102	ppb
Mn	55	17777.4	1.06617	ppb
Co	59	11495.6	1.04088	ppb
Ni	60	2699.4	0.95861	ppb
Cu	63	5732.8	1.11863	ppb
Cu	65	2787.4	1.0882	ppb
Zn	66	2798.8	1.15616	ppb
Zn	67	8484	2.99222	ppb
Zn	68	3163.6	1.23234	ppb
As	75	2305	1.13181	ppb
Se	77	1983.2	1.2437	ppb
Se	82	269.3	1.00012	ppb
Mo	95	9308.1	2.72857	ppb
Mo	97	5903.9	2.69823	ppb
Mo	98	15564	2.81585	ppb
> Rh	103	493048.9		ppb
Ag	107	18131.1	1.66725	ppb
Ag	109	17244.1	1.65472	ppb
Cd	111	2940.1	1.01229	ppb
Cd	114	6869.5	1.03215	ppb
Sb	121	30682.8	3.73144	ppb
Sb	123	23738	3.69604	ppb
Ba	135	2565.4	1.01572	ppb
Ba	137	4728.6	1.08387	ppb
> Ho	165	1028687.5		ppb
Tl	205	36422.5	1.06025	ppb
Pb	208	48817.6	1.07008	ppb
Kr	83	21		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 3

Sample Date: Monday, February 08, 2010 15:15:03

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	195694.4		ppb
Be	9	215158.9	247.51863	ppb
Al	27	1753285.7	248.02917	ppb
P	31	1114499.9	2618.3853	ppb
Sc	45	217473.2		ppb
V-1	51	2588416.3	248.89381	ppb
V	51	4991916.3	248.80754	ppb
Cr	52	2199934	249.81921	ppb
Cr	53	304589.9	247.98092	ppb
Mn	55	3633994.7	245.67955	ppb
Co	59	2546220.4	247.80172	ppb
Ni	60	532168	246.4078	ppb
Cu	63	1199837.4	256.75709	ppb
Cu	65	588084.2	254.37053	ppb
Zn	66	407260.2	240.87464	ppb
Zn	67	78658.2	247.15834	ppb
Zn	68	316292.7	242.48026	ppb
As	75	446030.8	245.96008	ppb
Se	77	41746	241.62512	ppb
Se	82	52962.5	242.05664	ppb
Mo	95	775280.9	244.64188	ppb
Mo	97	495461.6	243.34333	ppb
Mo	98	1286310.4	250.46681	ppb
Rh	103	463838.6		ppb
Ag	107	2667244.4	262.9221	ppb
Ag	109	2539382.6	261.61228	ppb
Cd	111	660352	242.071	ppb
Cd	114	1540671.4	246.87886	ppb
Sb	121	1975869.4	262.15418	ppb
Sb	123	1549740	263.50305	ppb
Ba	135	574465.9	241.71924	ppb
Ba	137	1028186.9	249.79169	ppb
Ho	165	980881.9		ppb
Tl	205	7909205.8	242.66787	ppb
Pb	208	10537035	246.02117	ppb
Kr	83	-36480.8		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Monday, February 08, 2010 15:18:33

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report	Unit
>	Li	6	200541.2			ppb
-	Be	9	92744.7	104.10393		ppb
-	Al	27	762049.1	104.25756		ppb
	P	31	471474.6	1058.6929		ppb
	Sc	45	219934.6			ppb
	V-1	51	1173151.2	103.81398		ppb
	V	51	2212341.3	104.37649		ppb
	Cr	52	954972.4	104.93668		ppb
	Cr	53	150154.9	101.50336		ppb
	Mn	55	1603259	105.50308		ppb
	Co	59	1102716.5	104.52532		ppb
	Ni	60	228666.8	102.96652		ppb
	Cu	63	511363.9	106.56954		ppb
	Cu	65	245604.4	103.42774		ppb
	Zn	66	180831.2	103.92298		ppb
	Zn	67	38264	104.19132		ppb
	Zn	68	139844.2	103.77829		ppb
	As	75	189875.7	101.96064		ppb
	Se	77	19287.8	103.22212		ppb
	Se	82	23017.8	102.36437		ppb
	Mo	95	335432	103.03983		ppb
	Mo	97	216098.3	103.3428		ppb
	Mo	98	557514.4	105.70229		ppb
>	Rh	103	475893.6			ppb
	Ag	107	1160568.2	111.44663		ppb
	Ag	109	1109345.8	111.28977		ppb
	Cd	111	283546.1	101.25613		ppb
-	Cd	114	666158.5	103.94384		ppb
-	Sb	121	769959.1	99.11211		ppb
	Sb	123	598465.1	98.72647		ppb
	Ba	135	250438.4	102.37933		ppb
	Ba	137	443531.7	104.68753		ppb
>	Ho	165	1009519.1			ppb
	Tl	205	3484538.3	103.8699		ppb
-	Pb	208	4632831.9	105.08934		ppb
	Kr	83	-15406.3			mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 5

Sample Date: Monday, February 08, 2010 15:22:02

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	202932.4		ppb
	Be	9	44793.4	49.69029	ppb
	Al	27	390863.3	52.92978	ppb
	P	31	104065.3	207.34456	ppb
	Sc	45	220481.9		ppb
	V-1	51	629730.8	50.78938	ppb
	V	51	1132482.3	50.91762	ppb
	Cr	52	466209	50.73531	ppb
	Cr	53	92936.4	50.07103	ppb
	Mn	55	769025.5	50.64535	ppb
	Co	59	531235	50.42588	ppb
	Ni	60	108723.3	48.9184	ppb
	Cu	63	248935.4	51.93346	ppb
	Cu	65	120200.2	50.67506	ppb
	Zn	66	85142.6	48.79144	ppb
	Zn	67	22510.2	51.29642	ppb
	Zn	68	65759.3	48.31603	ppb
	As	75	91486.3	49.16771	ppb
	Se	77	10087.9	49.31421	ppb
	Se	82	10899.7	48.47077	ppb
	Mo	95	162849.5	50.09123	ppb
	Mo	97	103360.6	49.48934	ppb
	Mo	98	270396.7	51.33275	ppb
>	Rh	103	475147.3		ppb
	Ag	107	554598.2	53.32619	ppb
	Ag	109	525785	52.81901	ppb
	Cd	111	135118.5	48.32531	ppb
	Cd	114	317040.3	49.54689	ppb
	Sb	121	453808.4	58.50891	ppb
	Sb	123	347551	57.43341	ppb
	Ba	135	116853.6	47.88861	ppb
	Ba	137	205750.8	48.69175	ppb
>	Hg	165	1006987.5		ppb
	Tl	205	1620929.6	48.43857	ppb
	Pb	208	2228922	50.6853	ppb
	Kr	83	192.7		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 6

Sample Date: Monday, February 08, 2010 15:25:32

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	199954.7		ppb
Be	9	44	0.04508	ppb
Al	27	316332005	50752.741	ppb
P	31	18712579	50234.12	ppb
Sc	45	201005.8		ppb
V-1	51	98928.5	0.34478	ppb
V	51	97249.5	0.26669	ppb
Cr	52	17824.8	1.16969	ppb
Cr	53	34017.4	1.69658	ppb
Mn	55	45405.3	3.39974	ppb
Co	59	10303.2	1.12079	ppb
Ni	60	4759.9	2.27346	ppb
Cu	63	6115.7	1.44212	ppb
Cu	65	5437.6	2.61019	ppb
Zn	66	6050.7	3.64323	ppb
Zn	67	6611.4	1.20312	ppb
Zn	68	3382.3	1.88013	ppb
As	75	667.9	0.3525	ppb
Se	77	2311	5.72552	ppb
Se	82	72.9	0.21679	ppb
Mo	95	3109042.9	1107.9758	ppb
Mo	97	1967019.1	1090.8111	ppb
Mo	98	5049281.4	1110.7228	ppb
Rh	103	410637.7		ppb
Ag	107	3159.9	0.33682	ppb
Ag	109	2941.8	0.32498	ppb
Cd	111	873.8	0.36163	ppb
Cd	114	9424.2	1.70269	ppb
Sb	121	23173.4	2.95748	ppb
Sb	123	17801.2	2.9072	ppb
Ba	135	776.4	0.31867	ppb
Ba	137	1369.4	0.327	ppb
Hf	165	963671.4		ppb
Tl	205	3173.9	0.09363	ppb
Pb	208	15829.1	0.35931	ppb
Kr	83	38.2		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 7

Sample Date: Monday, February 08, 2010 15:29:03

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	191039.9		ppb
+	Be	9	30	0.03092	ppb
+	Al	27	280367801	49543.948	ppb
	P	31	16440245	48583.143	ppb
	Sc	45	181768.2		ppb
	V-1	51	259727.6	21.53891	ppb
	V	51	427799.3	21.75206	ppb
	Cr	52	89697.5	11.58992	ppb
	Cr	53	39194.5	11.24863	ppb
	Mn	55	159685.4	13.35397	ppb
	Co	59	174728	21.12672	ppb
	Ni	60	35991.1	20.51149	ppb
	Cu	63	40319.6	10.6911	ppb
	Cu	65	21718.6	11.63294	ppb
	Zn	66	17600	12.56045	ppb
	Zn	67	8026.2	9.88721	ppb
	Zn	68	12214.5	10.62993	ppb
	As	75	15592.3	10.63156	ppb
	Se	77	3326.6	14.92053	ppb
	Se	82	1708	9.55434	ppb
	Mo	95	2847702.2	1117.1073	ppb
	Mo	97	1803145.4	1100.9446	ppb
	Mo	98	4680130.6	1133.1222	ppb
>	Rh	103	372900.3		ppb
	Ag	107	85104.9	10.41585	ppb
	Ag	109	80886.9	10.34086	ppb
	Cd	111	11680.8	5.32229	ppb
+	Cd	114	33633.9	6.69618	ppb
+	Sb	121	6676.8	0.82643	ppb
	Sb	123	5123.4	0.80766	ppb
	Ba	135	1787.5	0.81738	ppb
	Ba	137	3101.5	0.82063	ppb
>	Hg	165	888008.3		ppb
	Tl	205	1518.5	0.04618	ppb
+	Pb	208	5700.7	0.1303	ppb
	Kr	83	126.9		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 8

Sample Date: Monday, February 08, 2010 15:32:34

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Meas	Report Unit
>	Li	6	196647		ppb
	Be	9	250	0.28176	ppb
	Al	27	203565.8	30.3988	ppb
	P	31	18865.9	14.89756	ppb
	Sc	45	191566		ppb
	V-1	51	116254.7	1.92073	ppb
	V	51	118408.1	1.28387	ppb
	Cr	52	26307.3	2.15907	ppb
	Cr	53	38635.3	5.33326	ppb
	Mn	55	10050.9	0.68032	ppb
	Co	59	3506	0.36259	ppb
	Ni	60	16880.3	8.34307	ppb
	Cu	63	13000.3	3.01038	ppb
	Cu	65	6376.6	2.97446	ppb
	Zn	66	59863.8	38.41245	ppb
	Zn	67	15571	34.33159	ppb
	Zn	68	45834.9	37.5595	ppb
	As	75	518.6	0.25028	ppb
	Se	77	1913.2	2.6326	ppb
	Se	82	101.1	0.34831	ppb
	Mo	95	28953.1	10.01358	ppb
	Mo	97	18104.5	9.74785	ppb
	Mo	98	48410	10.33374	ppb
>	Rh	103	423508.4		ppb
	Ag	107	4308.4	0.45145	ppb
	Ag	109	4264.3	0.46533	ppb
	Cd	111	882.3	0.35278	ppb
	Cd	114	2122.2	0.3697	ppb
	Sb	121	4349	0.44417	ppb
	Sb	123	3413.7	0.44516	ppb
	Ba	135	1074.1	0.45311	ppb
	Ba	137	1830.9	0.4477	ppb
>	Ho	165	949996.8		ppb
	Tl	205	9669.8	0.30109	ppb
	Pb	208	35440.6	0.83766	ppb
	Kr	83	46.6		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 2

Sample Date: Monday, February 08, 2010 15:43:10

Sample Description: Check sample

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	197862.4		ppb
	Be	9	891	1.00989	ppb
	Al	27	20659.8	1.82035	ppb
	P	31	20848.9	18.19681	ppb
	Sc	45	198603.9		ppb
	V-1	51	156387.1	5.74217	ppb
	V	51	163029.4	3.45992	ppb
	Cr	52	27409.6	2.17976	ppb
	Cr	53	50481.1	15.58501	ppb
	Mn	55	15803.1	1.06582	ppb
	Co	59	10394.9	1.05882	ppb
	Ni	60	2299	0.90876	ppb
	Cu	63	5174.8	1.13591	ppb
	Cu	65	2559	1.12469	ppb
	Zn	66	2513.3	1.17167	ppb
	Zn	67	7884.1	4.22986	ppb
	Zn	68	2786.1	1.21148	ppb
	As	75	1919.2	1.05198	ppb
	Se	77	2779.4	7.71509	ppb
	Se	82	299.6	1.28821	ppb
	Mo	95	6682.5	2.19534	ppb
	Mo	97	4226	2.16494	ppb
	Mo	98	11035.4	2.23637	ppb
>	Rh	103	438559.2		ppb
	Ag	107	11767.6	1.21295	ppb
	Ag	109	11372.8	1.22275	ppb
	Cd	111	2706.8	1.04809	ppb
	Cd	114	6394	1.08092	ppb
	Sb	121	17895	2.23956	ppb
	Sb	123	13742.1	2.19926	ppb
	Ba	135	2439	1.0189	ppb
	Ba	137	4342	1.04985	ppb
>	Ho	165	974987.9		ppb
	Tl	205	57785.3	1.77947	ppb
	Pb	208	47546.7	1.10032	ppb
	Kr	83	-25.3		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Date: Monday, February 08, 2010 16:18:10

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas. Report Unit
P>	Li	6	197459.9		ppb
P>	Be	9	44.7	0.04646	ppb
P>	Al	27	36991.2	4.32386	ppb
P>	P	31	11666.8	-4.68703	ppb
P>	Sc	45	195041.8		ppb
P>	V-1	51	121200.8	2.11156	ppb
P>	V	51	118583.9	1.11884	ppb
P>	Cr	52	13839.5	0.55674	ppb
P>	Cr	53	40086.6	5.73501	ppb
P>	Mn	55	3483	0.18765	ppb
P>	Co	59	575.4	0.04883	ppb
P>	Ni	60	265.3	-0.08576	ppb
P>	Cu	63	556	0.09203	ppb
P>	Cu	65	290	0.08832	ppb
P>	Zn	66	786	0.0941	ppb
P>	Zn	67	7451.4	2.88456	ppb
P>	Zn	68	1536.5	0.20419	ppb
P>	As	75	408.9	0.17691	ppb
P>	Se	77	1980.5	2.73344	ppb
P>	Se	82	133.2	0.49378	ppb
P>	Mo	95	3700.1	1.21314	ppb
P>	Mo	97	2328	1.19204	ppb
P>	Mo	98	5975.1	1.20802	ppb
P>	Rh	103	434950		ppb
P>	Ag	107	1074.7	0.09935	ppb
P>	Ag	109	1082.7	0.10318	ppb
P>	Cd	111	117.2	0.04467	ppb
P>	Cd	114	251.2	0.04048	ppb
P>	Sb	121	64194.2	8.47457	ppb
P>	Sb	123	48994.8	8.28219	ppb
P>	Ba	135	246.7	0.09159	ppb
P>	Ba	137	447	0.09831	ppb
P>	Ho	165	967856.9		ppb
P>	Tl	205	18694.7	0.5756	ppb
P>	Pb	208	4596.1	0.09196	ppb
P>	Kr	83	115.1		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Monday, February 08, 2010 16:21:40

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	200641.4		ppb
Be	9	87137.6	97.77304	ppb
Al	27	670362	100.85234	ppb
P	31	406279.5	1001.7838	ppb
Sc	45	196874.4		ppb
V-1	51	1062863.5	103.42603	ppb
V	51	1991036	103.27917	ppb
Cr	52	865722.4	104.85135	ppb
Cr	53	140371.1	105.35186	ppb
Mn	55	1431573.6	103.63102	ppb
Co	59	996838.4	103.94274	ppb
Ni	60	206918.1	102.49751	ppb
Cu	63	463307.4	106.20364	ppb
Cu	65	227021.5	105.17135	ppb
Zn	66	165124.5	104.39201	ppb
Zn	67	34961.1	104.85316	ppb
Zn	68	128441.3	104.8623	ppb
As	75	173996	102.77778	ppb
Se	77	17497.2	102.98724	ppb
Se	82	20799.6	101.76481	ppb
Mo	95	302225.1	102.12288	ppb
Mo	97	192184.6	101.09665	ppb
Mo	98	499516.3	104.17788	ppb
Rh	103	432610		ppb
Ag	107	1018308.4	107.5642	ppb
Ag	109	982632.1	108.44006	ppb
Cd	111	261745.7	102.82124	ppb
Cd	114	616277.4	105.79204	ppb
Sb	121	737794.5	98.76833	ppb
Sb	123	573080.9	98.3317	ppb
Ba	135	232567.5	98.88701	ppb
Ba	137	406004.9	99.68549	ppb
Ho	165	970675.5		ppb
Tl	205	3438917.4	106.61639	ppb
Pb	208	4584178.1	108.15678	ppb
Kr	83	-14804.6		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-4 fh

Sample Date: Monday, February 08, 2010 16:49:45

Sample Description: Gel

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	218558.4		ppb
-	Be	9	15.7	0.01173	ppb
	P	31	12251.6	-5.30324	ppb
	Sc	45	197205.8		ppb
	Cr	52	8968.8	-0.10862	ppb
	Cr	53	15361	-19.664	ppb
	Mn	55	6388.9	0.36559	ppb
	Co	59	292	0.01733	ppb
	Ni	60	402.7	-0.03174	ppb
	As	75	384.1	0.1473	ppb
	Se	77	331	-8.00905	ppb
	Se	82	63.8	0.13261	ppb
>	Rh	103	466556.3		ppb
	Cd	111	109.5	0.03875	ppb
-	Cd	114	170.1	0.02449	ppb
-	Sb	121	38209.1	4.68572	ppb
	Sb	123	29458.5	4.62511	ppb
>	Ho	165	1028298.4		ppb
-	Pb	208	10079.9	0.20777	ppb
	Kr	83	75.6		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: blank

Sample Date: Monday, February 08, 2010 16:53:14

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	202820.5		ppb
-	Be	9	11.3	0.00818	ppb
-	Al	27	13237.7	0.7962	ppb
	P	31	11692.5	-3.50039	ppb
	Sc	45	192540.1		ppb
	V-1	51	113587.8	1.73454	ppb
	V	51	110211.9	0.87802	ppb
	Cr	52	13814.2	0.61556	ppb
	Cr	53	38237.3	5.27306	ppb
	Mn	55	1141.7	0.02167	ppb
	Co	59	166.3	0.00697	ppb
	Ni	60	168.3	-0.13092	ppb
	Cu	63	254.7	0.02535	ppb
	Cu	65	151.7	0.02686	ppb
	Zn	66	603	-0.00752	ppb
	Zn	67	6642.8	0.81846	ppb
	Zn	68	1244.1	0.00221	ppb
	As	75	267.4	0.10159	ppb
	Se	77	1892.2	2.59569	ppb
	Se	82	47.9	0.08371	ppb
	Mo	95	1189.1	0.38112	ppb
	Mo	97	737.7	0.37111	ppb
	Mo	98	1962.8	0.38726	ppb
>	Rh	103	419676.5		ppb
	Ag	107	677.7	0.06015	ppb
	Ag	109	709.7	0.06498	ppb
	Cd	111	22.7	0.00814	ppb
-	Cd	114	64.6	0.00896	ppb
-	Sb	121	17836.5	2.30338	ppb
	Sb	123	13821.6	2.2837	ppb
	Ba	135	106.7	0.03298	ppb
	Ba	137	164	0.02965	ppb
>	Ho	165	945877.6		ppb
	Tl	205	4930	0.15158	ppb
-	Pb	208	1504	0.01974	ppb
	Kr	83	118.9		mg/L

elementOne

e 13882-Metals

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 2

Sample Date: Monday, February 08, 2010 16:56:45

Sample Description:

Concentration Results

Analyte	Mass	Mess.	Intent Conc.	Mear Report Unit
Li	6	199264.7		ppb
Be	9	836.4	0.94055	ppb
Al	27	19238.3	1.64142	ppb
P	31	20299	17.45523	ppb
Sc	45	195696.9		ppb
V-1	51	134542.7	3.60203	ppb
V	51	141381.3	2.38973	ppb
Cr	52	23231.7	1.71073	ppb
Cr	53	43335.4	9.1205	ppb
Mn	55	14791.4	1.00653	ppb
Co	59	9725.2	1.002	ppb
Ni	60	2137.6	0.84241	ppb
Cu	63	4863	1.07865	ppb
Cu	65	2455.3	1.09092	ppb
Zn	66	2362.6	1.09503	ppb
Zn	67	7550.5	3.39515	ppb
Zn	68	2674.1	1.14682	ppb
As	75	2106.5	1.17819	ppb
Se	77	2237.6	4.42939	ppb
Se	82	251.3	1.07053	ppb
Mo	95	3776.1	1.24152	ppb
Mo	97	2389.3	1.21534	ppb
Mo	98	6156.1	1.24797	ppb
Rh	103	433282.7		ppb
Ag	107	10565.8	1.10109	ppb
Ag	109	10125.3	1.10019	ppb
Cd	111	2540.4	0.99496	ppb
Cd	114	6155.1	1.05263	ppb
Sb	121	19266.1	2.47307	ppb
Sb	123	14743.8	2.42063	ppb
Ba	135	2316	0.98619	ppb
Ba	137	4024.2	0.99155	ppb
Ho	165	955735.3		ppb
Tl	205	35338.3	1.10747	ppb
Pb	208	44642.6	1.05311	ppb
Kr	83	-34		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Date: Monday, February 08, 2010 17:00:15

Sample Description:

Concentration Results

Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
Li	6	199949.8		ppb
Be	9	12.3	0.00949	ppb
Al	27	11248	0.39484	ppb
P	31	11153.2	-6.36621	ppb
Sc	45	196673.8		ppb
V-1	51	127965.6	2.64035	ppb
V	51	124386.3	1.33649	ppb
Cr	52	15563.3	0.73999	ppb
Cr	53	43031.3	8.03625	ppb
Mn	55	1154.7	0.01848	ppb
Co	59	146	0.00403	ppb
Ni	60	167	-0.13575	ppb
Cu	63	201.3	0.01041	ppb
Cu	65	116.3	0.00747	ppb
Zn	66	584.7	-0.03842	ppb
Zn	67	7018.4	0.91162	ppb
Zn	68	1312.1	0.00438	ppb
As	75	38.7	-0.04047	ppb
Se	77	2247.6	4.24161	ppb
Se	82	45.6	0.06085	ppb
Mo	95	820.7	0.23959	ppb
Mo	97	523.3	0.24195	ppb
Mo	98	1344.7	0.2414	ppb
Rh	103	441027.6		ppb
Ag	107	665.7	0.05532	ppb
Ag	109	672.4	0.05695	ppb
Cd	111	16.2	0.00508	ppb
Cd	114	47	0.00542	ppb
Sb	121	8846.3	1.03438	ppb
Sb	123	6963.1	1.04194	ppb
Ba	135	80.7	0.0207	ppb
Ba	137	122.3	0.0184	ppb
Ho	165	970819.1		ppb
Tl	205	3607	0.10654	ppb
Pb	208	1462.4	0.0178	ppb
Kr	83	124.5		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Monday, February 08, 2010 17:03:45

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
>	Li	6	204338.9		ppb
+	Be	9	88726.9	97.741	ppb
-	Al	27	891068.7	97.9344	ppb
	P	31	422078.3	980.19348	ppb
	Sc	45	202659.5		ppb
	V-1	51	1121620	102.79857	ppb
	V	51	2091601.1	102.19033	ppb
	Cr	52	888151.1	101.13228	ppb
	Cr	53	147688.2	104.16357	ppb
	Mn	55	1472791.9	100.45594	ppb
	Co	59	1049087.6	103.09285	ppb
	Ni	60	218103	100.88796	ppb
	Cu	63	489279.6	105.69059	ppb
	Cu	65	236013.3	103.04167	ppb
	Zn	66	171754.2	102.3133	ppb
	Zn	67	36886.7	104.11491	ppb
	Zn	68	131547.4	101.17481	ppb
	As	75	182811.4	101.85461	ppb
	Se	77	18574	103.03623	ppb
	Se	82	21827.6	100.64415	ppb
	Mo	95	314501.9	100.1529	ppb
	Mo	97	200453	99.3638	ppb
	Mo	98	523489.4	102.89382	ppb
>	Rh	103	459029.6		ppb
	Ag	107	1071050.3	106.61327	ppb
	Ag	109	1032447.1	107.36829	ppb
	Cd	111	275642.5	102.04659	ppb
+	Cd	114	648278.8	104.86661	ppb
+	Sb	121	756840.5	98.70306	ppb
	Sb	123	588912.5	98.43816	ppb
	Ba	135	246176.9	102.00921	ppb
	Ba	137	432052.1	103.37687	ppb
>	Ho	165	996013.1		ppb
	Tl	205	3542649.4	107.05354	ppb
-	Pb	208	4715234.7	108.42173	ppb
	Kr	83	-15428.8		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: Blank

Sample Date: Tuesday, February 09, 2010 09:09:50

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
	Li	6	233709.2		ppb
-	Al	27	73041.2		ppb
	Sc	45	271564.1		ppb
>	Rh	103	820742.8		ppb
-	Sb	121	7434.4		ppb
	Sb	123	5827.7		ppb
>	Ho	165	1376357.1		ppb
	Kr	83	134.4		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 1

Sample Date: Tuesday, February 09, 2010 09:11:31

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
	Li	6	199199.7		ppb
-	Al	27	20585.6	-5.33738	ppb
	Sc	45	238842.4		ppb
>	Rh	103	526933.3		ppb
-	Sb	121	11634.8	0.66719	ppb
	Sb	123	8951.2	0.65224	ppb
>	Ho	165	1174230.4		ppb
	Kr	83	-8.2		mg/L

elementOne

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 2

Sample Da: Tuesday, February 09, 2010 09:13:13

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
	Li	6	195493.5		ppb
	Al	27	789496.1	98.42164	ppb
	Sc	45	232878.3		ppb
>	Rh	103	503972.9		ppb
	Sb	121	710320.7	91.2328	ppb
	Sb	123	544036.1	90.83721	ppb
>	Ho	165	1142457.7		ppb
	Kr	83	-16794.4		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: Standard 3

Sample Da: Tuesday, February 09, 2010 09:14:55

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
	Li	6	189662.5		ppb
	Al	27	3642459.3	500.32835	ppb
	Sc	45	230005.5		ppb
>	Rh	103	486741.2		ppb
	Sb	121	3825012.3	501.75411	ppb
	Sb	123	2942226.1	501.83325	ppb
>	Ho	165	1126577.2		ppb
	Kr	83	-79454.7		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Da: Tuesday, February 09, 2010 09:16:37

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
	Li	6	221143.2		ppb
	Al	27	8716.2	-6.97268	ppb
	Sc	45	263736.3		ppb
>	Rh	103	580452.1		ppb
	Sb	121	148661.5	15.97678	ppb
	Sb	123	114651.8	16.0078	ppb
>	Ho	165	1311944.5		ppb
	Kr	83	166.6		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 2

Sample Da: Tuesday, February 09, 2010 09:18:19

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
	Li	6	191830.1		ppb
	Al	27	16111.6	-5.80554	ppb
	Sc	45	229634.9		ppb
>	Rh	103	500460.5		ppb
	Sb	121	50818.3	5.88734	ppb
	Sb	123	39375.1	5.92194	ppb
>	Ho	165	1124940.5		ppb
	Kr	83	4.9		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 3

Sample Da: Tuesday, February 09, 2010 09:20:01

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Meas Report Unit
	Li	6	190141.8		ppb
	Al	27	1813600.8	247.20563	ppb
	Sc	45	228759.5		ppb
>	Rh	103	482787.9		ppb
	Sb	121	2116210.6	280.56376	ppb
	Sb	123	1642596	283.15669	ppb
>	Ho	165	1113479.9		ppb
	Kr	83	-39005.2		mg/L

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date: Tuesday, February 09, 2010 09:21:42

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Mean Report Unit
	Li	6	191201.2		ppb
	Al	27	774018	98.16578	ppb
	Sc	45	226357.5		ppb
>	Rh	103	495263.3		ppb
	Sb	121	714748.8	93.6685	ppb
	Sb	123	553954.1	94.38277	ppb
>	Ho	165	1119860.1		ppb
	Kr	83	-16582		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 5

Sample Date: Tuesday, February 09, 2010 09:23:24

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Mean Report Unit
	Li	6	193727.2		ppb
	Al	27	395001.9	46.22927	ppb
	Sc	45	227225.9		ppb
>	Rh	103	494858.7		ppb
	Sb	121	487833	63.76686	ppb
	Sb	123	376479.1	63.97179	ppb
>	Ho	165	1118601.7		ppb
	Kr	83	159		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 6

Sample Date: Tuesday, February 09, 2010 09:25:05

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Mean Report Unit
	Li	6	196237.6		ppb
	Al	27	357069024	53449.864	ppb
	Sc	45	222103.8		ppb
>	Rh	103	453724.9		ppb
	Sb	121	53215	6.47886	ppb
	Sb	123	40716.2	6.42676	ppb
>	Ho	165	1082761.7		ppb
	Kr	83	58		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 7

Sample Date: Tuesday, February 09, 2010 09:26:48

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc.	Mean Report Unit
	Li	6	195525.4		ppb
	Al	27	343207668	52983.051	ppb
	Sc	45	214187.5		ppb
>	Rh	103	439918.6		ppb
	Sb	121	18615.8	1.48689	ppb
	Sb	123	13059.9	1.52163	ppb
>	Ho	165	1075972.8		ppb
	Kr	83	163		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 2

Sample Date: Tuesday, February 09, 2010 09:28:31

Sample Description: Checksample

Concentration Results

Conc. Mean

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: 13882-4 fh

Sample Da: Tuesday, February 09, 2010 09:30:14

Sample De: Gel

Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Meas	Report Unit
	Li	6	220318.3		ppb
	Sc	45	218177.4		ppb
>	Rh	103	529442.1		ppb
<	Sb	121	3557.4	-0.36753	ppb
	Sb	123	2733.9	-0.38324	ppb
>	Ho	165	1219406.5		ppb
	Kr	83	106		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 1

Sample Da: Tuesday, February 09, 2010 09:45:28

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Meas	Report Unit
	Li	6	237099.6		ppb
<	Al	27	7976.5	-7.05053	ppb
	Sc	45	260789.5		ppb
>	Rh	103	575372.7		ppb
<	Sb	121	3602	-0.39242	ppb
	Sb	123	2726.3	-0.41434	ppb
>	Ho	165	1309515.7		ppb
	Kr	83	158.4		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Da: Tuesday, February 09, 2010 09:47:10

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Meas	Report Unit
	Li	6	205780.8		ppb
<	Al	27	765953.7	97.69667	ppb
	Sc	45	224715.5		ppb
>	Rh	103	492267.1		ppb
<	Sb	121	698778.5	90.89326	ppb
	Sb	123	540376.8	91.38219	ppb
>	Ho	165	1128022.3		ppb
	Kr	83	-16726.2		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: Blank

Sample Da: Tuesday, February 09, 2010 09:53:33

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Meas	Report Unit
	Li	6	209918.7		ppb
<	Al	27	6278.8		ppb
	Sc	45	231398		ppb
>	Rh	103	523346.2		ppb
<	Sb	121	16383.8		ppb
	Sb	123	12546.2		ppb
>	Ho	165	1170588.3		ppb
	Kr	83	160.9		mg/L

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 5

Sample Da: Tuesday, February 09, 2010 09:56:57

Sample Description:

Concentration Results

Conc. Meas

PerkinElmer FIMS-100 CVAA Mercury Analyzer

Sample_ID	Date	Time	Mean_Sig	Mean_Rd	Mean_Rt	Units	Alq.	Vol.	Sig 1	Reading-1	Result-1	Sig 2	Reading-2	Result-2
Calib Blank	1/26/2010	12:58:38	0.0002591			µg	4	100	0.0002591					
STD1=.004ug	1/26/2010	13:00:53	0.0010641			µg	4	100	0.0010641					
STD2=.04ug	1/26/2010	13:02:09	0.0125883			µg	4	100	0.0125883					
STD3=.08ug	1/26/2010	13:03:26	0.0227552			µg	4	100	0.0227552					
STD4=.16ug	1/26/2010	13:04:44	0.0478555			µg	4	100	0.0478555					
STD5=.2ug	1/26/2010	13:06:03	0.0625303			µg	4	100	0.0625303					
Reagent Blank	1/26/2010	13:07:52	2.98E-06	9.78E-06	9.75E-06	µg	4	100	1.719E-05	5.621E-05	5.621E-05	-0.0000112	-0.0000367	-0.0000367
0.004ug = DL	1/26/2010	13:09:05	0.0011729	0.0038355	0.0038355	µg	4	100	0.0011729	0.0038355	0.0038355			
0.080ug = STD.2	1/26/2010	13:10:22	0.0231767	0.0757927	0.0757927	µg	4	100	0.0231767	0.0757927	0.0757927			
REAGENT BLANK	1/26/2010	13:11:39	5.299E-05	0.0001733	0.0001733	µg	4	100	5.299E-05	0.0001733	0.0001733			
0.080ug = STD.2	1/26/2010	13:12:56	0.0238421	0.0779686	0.0779686	µg	4	100	0.0238421	0.0779686	0.0779686			
REAGENT BLANK	1/26/2010	13:14:13	4.472E-05	0.0001463	0.0001463	µg	4	100	4.472E-05	0.0001463	0.0001463			
0.004ug = DL	1/26/2010	14:39:14	0.0012324	0.0040302	0.0040302	µg	20	1	0.0012324	0.0040302	0.0040302			
0.080ug = STD.2	1/26/2010	14:40:31	0.0263518	0.086176	0.086176	µg	20	1	0.0263518	0.086176	0.086176			
REAGENT BLANK	1/26/2010	14:41:48	0.0001192	0.0003898	0.0003898	µg	20	1	0.0001192	0.0003898	0.0003898			
13882-1a	1/26/2010	14:57:48	0.0250207	0.081823	4.0911484	µg	4	200	0.0255284	0.0834833	4.1741665	0.024513	0.0801626	4.0081303
13882-2a	1/26/2010	14:59:35	0.0166058	0.0543048	2.7152298	µg	4	200	0.0166666	0.0545033	2.7251666	0.0165451	0.0541059	2.705293
0.004ug = DL	1/26/2010	15:00:50	0.0011255	0.0036805	0.0036805	µg	4	200	0.0011255	0.0036805	0.0036805			
0.080ug = STD.2	1/26/2010	15:02:08	0.0255954	0.0837022	0.0837022	µg	4	200	0.0255954	0.0837022	0.0837022			
REAGENT BLANK	1/26/2010	15:03:25	7.258E-05	0.0002374	0.0002374	µg	4	200	7.258E-05	0.0002374	0.0002374			
13882-2a dup	1/26/2010	15:05:12	0.0171488	0.0560736	2.8036789	µg	4	200	0.0173417	0.0567109	2.8355468	0.0169519	0.0554362	2.7718112
13882-3a	1/26/2010	15:07:03	0.020757	0.0678797	3.3939856	µg	4	200	0.0203587	0.0665773	3.3288648	0.0211553	0.0691821	3.4591065
13882-3a spk	1/26/2010	15:08:52	0.0449362	0.1469508	7.3475417	µg	4	200	0.0446691	0.1460773	7.3038669	0.0452033	0.1478243	7.3912185
13882-4a	1/26/2010	15:10:44	6.758E-05	0.0002209	0.011047	µg	4	200	4.598E-05	0.0001504	0.007519	8.913E-05	0.0002915	0.0145749
13882-4b	1/26/2010	15:21:19	6.274E-05	0.0002052	0.0256466	µg	4	500	4.102E-05	0.0001342	0.0167712	8.445E-05	0.0002782	0.0345221
0.004ug = DL	1/26/2010	15:22:33	0.0012078	0.0039497	0.0039497	µg	4	500	0.0012078	0.0039497	0.0039497			
0.080ug = STD.2	1/26/2010	15:23:51	0.0234876	0.0768093	0.0768093	µg	4	500	0.0234876	0.0768093	0.0768093			
REAGENT BLANK	1/26/2010	15:25:08	6.458E-05	0.0002112	0.0002112	µg	4	500	6.458E-05	0.0002112	0.0002112			
13882-4bh	1/26/2010	15:35:55	-0.0000739	-0.0002417	-0.0160162	µg	4	265	-0.0000703	-0.00023	-0.0152423	-0.0000774	-0.0002534	-0.01679
0.004ug = DL	1/26/2010	15:37:12	0.0011455	0.003746	0.003746	µg	4	265	0.0011455	0.003746	0.003746			
0.080ug = QC STD 3	1/26/2010	15:38:29	0.0237553	0.0776847	0.0776847	µg	4	265	0.0237553	0.0776847	0.0776847			
REAGENT BLANK	1/26/2010	15:39:45	-0.0001951	-0.0006382	-0.0006382	µg	4	265	-0.0001951	-0.0006382	-0.0006382			
Calib Blank	1/27/2010	12:15:15	0.000336			µg			0.000336					
STD1=.004ug	1/27/2010	12:16:30	0.0010489			µg			0.0010489					
STD2=.04ug	1/27/2010	12:17:45	0.0100676			µg			0.0100676					
STD3=.08ug	1/27/2010	12:19:02	0.0198767			µg			0.0198767					
STD4=.16ug	1/27/2010	12:20:20	0.040548			µg			0.040548					
STD5=.2ug	1/27/2010	12:21:40	0.0527728			µg			0.0527728					
0.004ug = DL	1/27/2010	12:24:42	0.000857	0.0036984	0.0036984	µg			0.000857	0.0036984	0.0036984			
0.080ug = STD.2	1/27/2010	12:26:39	0.0203329	0.0785774	0.0785774	µg			0.0203329	0.0785774	0.0785774			
0.080ug = QC STD 3	1/27/2010	12:29:59	0.0215896	0.083434	0.083434	µg			0.0215896	0.083434	0.083434			
13882-1b	1/27/2010	12:33:02	0.0181104	0.0699887	87.485878	µg	0.4	500	0.0177984	0.0687829	85.978629	0.0184225	0.0711945	88.993126
13882-2b	1/27/2010	12:34:48	0.0234501	0.090624	113.28006	µg	0.4	500	0.0239549	0.0925749	115.71868	0.0229453	0.0886731	110.84143
13882-2b dup	1/27/2010	12:36:35	0.0221834	0.085729	107.16123	µg	0.4	500	0.0219994	0.0850176	106.272	0.0223675	0.0864404	108.05046
13882-1bh	1/27/2010	12:42:02	0.0142447	0.0550492	51.608582	µg	0.4	375	0.0144478	0.0558342	52.344557	0.0140415	0.0542641	50.872608
13882-2bh	1/27/2010	12:43:53	0.0179075	0.0692043	54.498356	µg	0.4	315	0.0184532	0.0713131	56.159083	0.0173618	0.0670954	52.837629
13882-2bh dup	1/27/2010	12:45:45	0.0182557	0.0705502	55.558303	µg	0.4	315	0.0184965	0.0714807	56.291072	0.018015	0.0696197	54.825534
13882-3bh	1/27/2010	12:47:34	0.0299865	0.1158845	55.045114	µg	0.8	380	0.0301311	0.1164429	55.310399	0.029842	0.115326	54.77983
13882-3bh spk	1/27/2010	12:49:20	0.0508128	0.1963687	93.275138	µg	0.8	380	0.050715	0.1959906	93.095532	0.0509107	0.1967468	93.454744
0.004ug = DL	1/27/2010	12:51:48	0.0009702	0.0037495	0.0037495	µg	0.8	380	0.0009702	0.0037495	0.0037495			
0.080ug = STD.2	1/27/2010	12:53:05	0.0195007	0.0753612	0.0753612	µg	0.8	380	0.0195007	0.0753612	0.0753612			
REAGENT BLANK	1/27/2010	12:54:22	-0.0000897	-0.0003469	-0.0003469	µg	0.8	380	-0.0000897	-0.0003469	-0.0003469			
Calib Blank	1/27/2010	13:53:54	0.0002796			µg	4	200	0.0002796					
STD1=.004ug	1/27/2010	13:55:09	0.0009288			µg	4	200	0.0009288					
STD2=.04ug	1/27/2010	13:56:25	0.0104765			µg	4	200	0.0104765					
STD3=.08ug	1/27/2010	13:57:42	0.0195968			µg	4	200	0.0195968					
STD4=.16ug	1/27/2010	13:59:00	0.0402704			µg	4	200	0.0402704					
STD5=.2ug	1/27/2010	14:00:19	0.0484598			µg	4	200	0.0484598					
Reagent Blank	1/27/2010	14:10:55	0.0001025	0.0004161	0.0004161	µg	4	200	0.0001046	0.0004246	0.0004246	0.0001004	0.0004076	0.0004076
0.004ug = DL	1/27/2010	14:12:09	0.0010339	0.0041972	0.0041972	µg	4	200	0.0010339	0.0041972	0.0041972			
0.080ug = STD.2	1/27/2010	14:13:26	0.0197311	0.0801038	0.0801038	µg	4	200	0.0197311	0.0801038	0.0801038			
REAGENT BLANK	1/27/2010	14:14:43	-0.0000324	-0.0001315	-0.0001315	µg	4	200	-0.0000324	-0.0001315	-0.0001315			
0.080ug = STD.2	1/27/2010	14:16:00	0.0193523	0.078566	0.078566	µg	4	200	0.0193523	0.078566	0.078566			
0.080ug = QC STD 3	1/27/2010	14:17:20	0.0203629	0.0826691	0.0826691	µg	4	200	0.0203629	0.0826691	0.0826691			
REAGENT BLANK	1/27/2010	14:18:37	-0.0000138	-0.0000562	-0.0000562	µg	4	200	-0.0000138	-0.0000562	-0.0000562			
0.004ug = DL	1/27/2010	14:59:44	0.0009996	0.0040582	0.0040582	µg	4	200	0.0009996	0.0040582	0.0040582			
0.080ug = STD.2	1/27/2010	15:01:01	0.0188628	0.0765788	0.0765788	µg	4	200	0.0188628	0.0765788	0.0765788			
REAGENT BLANK	1/27/2010	15:02:18	4.63E-06	1.881E-05	1.881E-05	µg	4	200	4.63E-06	1.881E-05	1.881E-05			
13882-1c	1/27/2010	15:14:39	0.0133988	0.0544002	5.440017	µg	4	400	0.0131807	0.0535108	5.3510826	0.0136188	0.0552895	5.5289513
13882-2c	1/27/2010	15:16:27	0.0196952	0.0799582	7.9958156	µg	4	400	0.0198079	0.0804158	8.0415812	0.0195825	0.0795005	7.9500501
13882-2c dup	1/27/2010	15:18:15	0.0190145	0.0771945	7.7194527	µg	4	400	0.0185859	0.0795144	7.9514445	0.018443	0.0748746	7.487461
0.004ug = DL	1/27/2010	15:21:19	0.0009352	0.0037968	0.0037968	µg	4	400	0.0009352	0.0037968	0.0037968			
0.080ug = STD.2	1/27/2010	15:22:36	0.0190597	0.0773781	0.0773781	µg	4	400	0.0190597	0.0773781	0.0773781			
REAGENT BLANK	1/27/2010	15:23:53	-0.0000308	-0.000125	-0.000125	µg	4	400	-0.0000308	-0.000125	-0.000125			
13882-4c	1/27/2010	15:27:31	-0.0000537	-0.0002182	-0.0218245	µg	4	400	-0.0000667	-0.0002708	-0.0270803	-0.0000408	-0.0001656	-0.0165887
0.004ug = DL	1/27/2010	15:28:47	0.0009611	0.0039019	0.0039019	µg	4	400	0.0009611	0.0039019	0.0039019			
0.080ug = QC STD 3</														

PerkinElmer FIMS-100 CVAA Mercury Analyzer

Sample_ID	Date	Time	Mean_Sig	Mean_Rd	Mean_Rt	Units	Aiq.	Vol.	Sig 1	Reading-1	Result-1	Sig 2	Reading-2	Result-2
Calib Blank	1/29/2010	11:15:08	0.0001707			µg			0.0001707					
STD1=.004ug	1/29/2010	11:16:23	0.0010937			µg			0.0010937					
STD2=.04ug	1/29/2010	11:17:40	0.010373			µg			0.010373					
STD3=.08ug	1/29/2010	11:18:57	0.0194778			µg			0.0194778					
STD4=.18ug	1/29/2010	11:20:15	0.0405059			µg			0.0405059					
STD5=.2ug	1/29/2010	11:21:34	0.0486339			µg			0.0486339					
0.004ug = DL	1/29/2010	11:25:50	0.0010222	0.0041363	0.0041363	µg			0.0010222	0.0041363	0.0041363			
0.080ug = STD.2	1/29/2010	11:31:01	0.0205006	0.0829541	0.0829541	µg			0.0205006	0.0829541	0.0829541			
0.080ug = QC STD 3	1/29/2010	11:32:21	0.0197108	0.079758	0.079758	µg			0.0197108	0.079758	0.079758			
0.004ug = DL	1/29/2010	12:43:27	0.0010695	0.0043274	0.0043274	µg	1	670	0.0010695	0.0043274	0.0043274			
0.080ug = STD.2	1/29/2010	12:44:44	0.0192198	0.0777714	0.0777714	µg	1	670	0.0192198	0.0777714	0.0777714			
REAGENT BLANK	1/29/2010	12:46:01	7.637E-05	0.0003091	0.0003091	µg	1	670	7.637E-05	0.0003091	0.0003091			
13882-3b	1/29/2010	12:51:24	0.0125309	0.0507054	31.890857	µg	0.8	500	0.0124864	0.050525	31.578152	0.0125755	0.0508857	31.803561
13882-3b spk	1/29/2010	12:53:13	0.0328988	0.1331221	83.201302	µg	0.8	500	0.0327834	0.1326553	82.909581	0.0330141	0.1335888	83.493022
0.004ug = DL	1/29/2010	13:05:26	0.0010147	0.0041059	0.0041059	µg	0.9	1	0.0010147	0.0041059	0.0041059			
0.080ug = STD.2	1/29/2010	13:06:43	0.019512	0.0789537	0.0789537	µg	0.9	1	0.019512	0.0789537	0.0789537			
REAGENT BLANK	1/29/2010	13:08:00	0.0000532	0.0002153	0.0002153	µg	0.9	1	0.0000532	0.0002153	0.0002153			
0.004ug = DL	1/29/2010	13:17:04	0.0010076	0.0040772	0.0040772	µg	0.9	1	0.0010076	0.0040772	0.0040772			
0.080ug = STD.2	1/29/2010	13:18:21	0.0189154	0.0765395	0.0765395	µg	0.9	1	0.0189154	0.0765395	0.0765395			
0.080ug = QC STD 3	1/29/2010	13:19:40	0.0193453	0.0782791	0.0782791	µg	0.9	1	0.0193453	0.0782791	0.0782791			
REAGENT BLANK	1/29/2010	13:20:57	-0.0000475	-0.0001924	-0.0001924	µg	0.9	1	-0.0000475	-0.0001924	-0.0001924			
13882-3c	1/29/2010	13:29:57	0.0168554	0.0682038	34.101899	µg	0.8	400	0.0168478	0.0681733	34.086685	0.0188629	0.0682343	34.117133
13882-3c spk	1/29/2010	13:31:47	0.0359388	0.1454233	72.711829	µg	0.8	400	0.0360682	0.145947	72.973489	0.0358094	0.1448995	72.44977
0.004ug = DL	1/29/2010	13:40:13	0.0010485	0.0042425	0.0042425	µg	0.9	1	0.0010485	0.0042425	0.0042425			
0.080ug = QC STD 3	1/29/2010	13:41:30	0.0187436	0.0758444	0.0758444	µg	0.9	1	0.0187436	0.0758444	0.0758444			
REAGENT BLANK	1/29/2010	13:42:47	-0.0000026	-0.0000106	-0.0000106	µg	0.9	1	-0.0000026	-0.0000106	-0.0000106			
Calib Blank	2/2/2010	12:13:25	0.0001834			µg	0.2	1	0.0001834					
STD1=.004ug	2/2/2010	12:14:39	0.0012845			µg	0.2	1	0.0012845					
STD2=.04ug	2/2/2010	12:15:53	0.0125641			µg	0.2	1	0.0125641					
STD3=.08ug	2/2/2010	12:17:09	0.024736			µg	0.2	1	0.024736					
STD4=.18ug	2/2/2010	12:18:25	0.0472913			µg	0.2	1	0.0472913					
STD5=.2ug	2/2/2010	12:19:44	0.0604518			µg	0.2	1	0.0604518					
Reagent Blank	2/2/2010	12:21:29	1.092E-05	3.631E-05	3.631E-05	µg	0.2	1	-0.0000015	-0.0000005	-0.0000005	2.336E-05	7.764E-05	7.764E-05
0.004ug = DL	2/2/2010	12:22:42	0.00121	0.0040216	0.0040216	µg	0.2	1	0.00121	0.0040216	0.0040216			
0.080ug = STD.2	2/2/2010	12:23:58	0.0258296	0.0858505	0.0858505	µg	0.2	1	0.0258296	0.0858505	0.0858505			
0.080ug = QC STD 3	2/2/2010	12:27:55	0.0241296	0.0802	0.0802	µg	0.2	1	0.0241296	0.0802	0.0802			
REAGENT BLANK	2/2/2010	12:29:12	6.231E-05	0.0002071	0.0002071	µg	0.2	1	6.231E-05	0.0002071	0.0002071			
13882-1fh	2/2/2010	12:32:48	0.0002086	0.0006934	0.017334	µg	4	100	0.0002169	0.0007208	0.0180192	0.0002004	0.000666	0.0166488
13882-2fh	2/2/2010	12:34:39	0.0003903	0.0012973	0.0324315	µg	4	100	0.0003583	0.0011908	0.0297894	0.0004223	0.0014037	0.0350935
13882-2fh dup	2/2/2010	12:38:24	0.0004256	0.0014146	0.0353658	µg	4	100	0.0004414	0.0014869	0.0366736	0.0004099	0.0013623	0.0340581
13882-3fh	2/2/2010	12:38:06	0.0001875	0.0006233	0.0155817	µg	4	100	0.0001707	0.0005873	0.0141824	0.0002044	0.0006792	0.0169811
13882-3fh spk	2/2/2010	12:39:50	0.0206982	0.0687886	1.719714	µg	4	100	0.0201944	0.0671208	1.6780199	0.021198	0.0704583	1.7614082
0.004ug = DL	2/2/2010	12:48:00	0.0011055	0.0036744	0.0036744	µg	0.2	1	0.0011055	0.0036744	0.0036744			
0.080ug = STD.2	2/2/2010	12:49:16	0.0254491	0.0845858	0.0845858	µg	0.2	1	0.0254491	0.0845858	0.0845858			
REAGENT BLANK	2/2/2010	12:50:32	-0.0000191	-0.0000637	-0.0000637	µg	0.2	1	-0.0000191	-0.0000637	-0.0000637			

**AIR LIQUIDE**Scott Specialty Gases
Air Liquide America Specialty Gases LLC**RATA CLASS***Dual-Analyzed Calibration Standard*

1290 COMBERMERE STREET, TROY, MI 48083

Phone: 248-589-2950

Fax: 248-589-2134

CERTIFICATE OF ACCURACY: Interference Free™ Multi-Component EPA Protocol Gas**Assay Laboratory**SCOTT SPECIALTY GASES
1290 COMBERMERE STREET
TROY, MI 48083P.O. No.: 08618-DA02
Project No.: 05-64055-004**Customer**

AIR QUALITY SERVICES

425 MAIN STREET
EVANSVILLE IN 47708**ANALYTICAL INFORMATION**

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM042143

Certification Date: 08Apr2008

Exp. Date: 08Apr2010

Cylinder Pressure***: 1966 PSIG

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ACCURACY**	TRACEABILITY
CARBON DIOXIDE	11.85	%	+/- 1%	Direct NIST and NMI
NITRIC OXIDE	279.5	PPM	+/- 1%	Direct NIST and NMI
SULFUR DIOXIDE *	137.6	PPM	+/- 1%	Direct NIST and NMI
NITROGEN - OXYGEN FREE		BALANCE		

TOTAL OXIDES OF NITROGEN 279.5 PPM Reference Value Only

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

* This Protocol has been certified using corrected NIST SO2 standard values, per EPA guidance dated 7/24/86 and will not correlate with uncorrected Pro

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1675	04Jul2008	K008338	13.93 %	CARBON DIOXIDE
NTRM 1685	01Sep2010	KAL003525	247.1 PPM	NITRIC OXIDE
NTRM 0260	01May2008	ALM000530	254.4 PPM	SULFUR DIOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR/0928821	20Mar2008	FTIR
FTIR/0928821	13Mar2008	FTIR
FTIR/0928821	03Apr2008	FTIR

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

First Triad Analysis**Second Triad Analysis****Calibration Curve****CARBON DIOXIDE**

Date: 31Mar2008 Response Unit:%

Z1=-0.01298 R1=13.76550 T1=11.88332

R2=13.77203 Z2=-0.00749 T2=11.70811

Z3=0.01355 T3=11.77397 R3=13.79458

Avg. Concentration: 11.85 %

Concentration = A + Bx + Cx2 + Dx3 + Ex4

r=9.99999E-1

Constants: A=0.00000E+0

B=8.27310E-1 C=4.87200E-3

D=0.00000E+0 E=0.00000E+0

NITRIC OXIDE

Date: 31Mar2008 Response Unit:PPM

Z1=-0.52252 R1=246.4336 T1=278.7212

R2=246.9783 Z2=-0.16278 T2=278.9040

Z3=-0.02726 T3=278.9252 R3=247.0092

Avg. Concentration: 279.1 PPM

Date: 08Apr2008 Response Unit: PPM

Z1=0.19141 R1=246.4850 T1=279.4884

R2=247.2481 Z2=0.42180 T2=280.1136

Z3=0.72462 T3=280.1534 R3=247.7298

Avg. Concentration: 279.9 PPM

Concentration = A + Bx + Cx2 + Dx3 + Ex4

r=9.99999E-1

Constants: A=0.00000E+0

B=9.88482E-1 C=-3.00000E-6

D=0.00000E+0 E=0.00000E+0

SULFUR DIOXIDE *

Date: 31Mar2008 Response Unit:PPM

Z1=0.00836 R1=254.2408 T1=137.2347

R2=254.3670 Z2=0.07758 T2=137.3122

Z3=0.08249 T3=137.3912 R3=254.3670

Avg. Concentration: 137.3 PPM

Date: 08Apr2008 Response Unit: PPM

Z1=-0.00841 R1=252.8908 T1=137.1790

R2=252.9482 Z2=0.01100 T2=137.1905

Z3=0.01832 T3=137.1911 R3=253.0725

Avg. Concentration: 137.9 PPM

Concentration = A + Bx + Cx2 + Dx3 + Ex4

r=9.99989E-1

Constants: A=0.00000E+0

B=8.91987E-1 C=-3.00000E-6

D=0.00000E+0 E=0.00000E+0

APPROVED BY:

Rob McCrandall

**AIR LIQUIDE**Scott Specialty Gases
Air Liquide America Specialty Gases LLC**RATA CLASS***Dual-Analyzed Calibration Standard*

1290 COMBERMERE STREET, TROY, MI 48083

Phone: 248-589-2950

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CERTIFICATE OF ACCURACY: Interference Free™ Multi-Component EPA Protocol Gas**Assay Laboratory**SCOTT SPECIALTY GASES
1290 COMBERMERE STREET
TROY, MI 48083P.O. No.: 08618-DA02
Project No.: 05-64055-003**Customer**

AIR QUALITY SERVICES

425 MAIN STREET
EVANSVILLE IN 47708**ANALYTICAL INFORMATION**

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM061909

Certification Date: 28Mar2008

Exp. Date: 28Mar2010

Cylinder Pressure***: 1810 PSIG

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ACCURACY**	TRACEABILITY
CARBON DIOXIDE	6.594	%	+/- 1%	Direct NIST and NMI
NITRIC OXIDE	127.1	PPM	+/- 1%	Direct NIST and NMI
SULFUR DIOXIDE *	62.07	PPM	+/- 1%	Direct NIST and NMI
NITROGEN - OXYGEN FREE		BALANCE		
TOTAL OXIDES OF NITROGEN	127.1	PPM		Reference Value Only

*** Do not use when cylinder pressure is below 180 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

* This Protocol has been certified using corrected NIST SO2 standard values, per EPA guidance dated 7/24/96 and will not correlate with uncorrected Prod

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1675	04Jul2008	K008338	13.93 %	CARBON DIOXIDE
NTRM 1685	01Sep2010	KAL003525	247.1 PPM	NITRIC OXIDE
NTRM 1694	15Aug2008	ALM043477	97.81 PPM	SULFUR DIOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR/0928621	20Mar2008	FTIR
FTIR/0928621	13Mar2008	FTIR
FTIR/0928621	08Mar2008	FTIR

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis**Second Triad Analysis****Calibration Curve****CARBON DIOXIDE**

Date: 21Mar2008 Response Unit: %

Z1 = 0.00490 R1 = 13.73195 T1 = 6.52786
R2 = 13.82727 Z2 = 0.00702 T2 = 6.53817
Z3 = 0.01925 T3 = 6.54237 R3 = 13.83197
Avg. Concentration: 8.594 %

Concentration = A + Bx + Cx2 + Dx3 + Ex4

r = 9.99998E-1

Constants: A = 0.00000E+0

B = 6.27310E-1 C = 4.97200E-3

D = 0.00000E+0 E = 0.00000E+0

NITRIC OXIDE

Date: 21Mar2008 Response Unit: PPM

Z1 = -0.37876 R1 = 97.65495 T1 = 126.3157
R2 = 97.71410 Z2 = -0.10038 T2 = 126.4641
Z3 = -0.00279 T3 = 127.0531 R3 = 97.80742
Avg. Concentration: 126.5 PPM

Date: 28Mar2008 Response Unit: PPM

Z1 = -0.23593 R1 = 247.2333 T1 = 127.7405
R2 = 247.4015 Z2 = -0.04889 T2 = 127.9235
Z3 = 0.23465 T3 = 127.7430 R3 = 247.8485
Avg. Concentration: 127.8 PPM

Concentration = A + Bx + Cx2 + Dx3 + Ex4

r = 9.99998E-1

Constants: A = 0.00000E+0

B = 9.37624E-1 C = 4.20000E-5

D = 0.00000E+0 E = 0.00000E+0

SULFUR DIOXIDE *

Date: 21Mar2008 Response Unit: PPM

Z1 = 0.00707 R1 = 98.44417 T1 = 62.72715
R2 = 98.52162 Z2 = 0.01343 T2 = 62.73438
Z3 = 0.02749 T3 = 62.76435 R3 = 98.58279
Avg. Concentration: 62.29 PPM

Date: 28Mar2008 Response Unit: PPM

Z1 = 0.01015 R1 = 98.71935 T1 = 62.24304
R2 = 98.72876 Z2 = 0.02415 T2 = 62.51620
Z3 = 0.03631 T3 = 62.58823 R3 = 98.77257
Avg. Concentration: 61.85 PPM

Concentration = A + Bx + Cx2 + Dx3 + Ex4

r = 9.99981E-1

Constants: A = 0.00000E+0

B = 9.95768E-1 C = 4.00000E-6

D = 0.00000E+0 E = 0.00000E+0

APPROVED BY:

Rob McCrandall

**AIR LIQUIDE**Scott Specialty Gases
Air Liquide America Specialty Gases LLC**RATA CLASS***Dual-Analyzed Calibration Standard*

1290 COMBERMERE STREET, TROY, MI 48083

Phone: 248-689-2950

Fax: 248-689-2134

CERTIFICATE OF ACCURACY: Interference Free TM Multi-Component EPA Protocol GasAssay LaboratorySCOTT SPECIALTY GASES
1290 COMBERMERE STREET
TROY, MI 48083P.O. No.: 08618-DA02
Project No.: 05-64055-001Customer

AIR QUALITY SERVICES

425 MAIN STREET
EVANSVILLE IN 47708**ANALYTICAL INFORMATION**

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM044839 Certification Date: 04Apr2008 Exp. Date: 04Apr2011
Cylinder Pressure***: 2000 PSIGCOMPONENTCARBON DIOXIDE
SULFUR DIOXIDE *
NITROGENCERTIFIED CONCENTRATION (Moles)6.480 %
619.9 PPM
BALANCEANALYTICALACCURACY**+/- 1%
+/- 1%TRACEABILITYDirect NIST and NMI
Direct NIST and NMI

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

* This Protocol has been certified using corrected NIST SO2 standard values, per EPA guidance dated 7/24/98 and will not correlate with uncorrected Pro

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1800	01Mar2009	K027180	17.87 %	CARBON DIOXIDE
NTRM 1862	15May2010	KAL003112	975.0 PPM	SULFUR DIOXIDE

INSTRUMENTATIONINSTRUMENT/MODEL/SERIAL#

FTIR/0928621

FTIR/0928621

DATE LAST CALIBRATED

20Mar2008

03Apr2008

ANALYTICAL PRINCIPLE

FTIR

FTIR

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

CARBON DIOXIDE

Date: 04Apr2008 Response Unit: %

Z1 = -0.00479 R1 = 17.81178 T1 = 6.44727
 R2 = 17.80843 Z2 = -0.00405 T2 = 8.44945
 Z3 = -0.00491 T3 = 6.45411 R3 = 17.77215

Avg. Concentration: 6.480 %

Z1 = 0.00000 R1 = 0.00000 T1 = 0.00000
 R2 = 0.00000 Z2 = 0.00000 T2 = 0.00000
 Z3 = 0.00000 T3 = 0.00000 R3 = 0.00000

Avg. Concentration: 0.000

Concentration = A + Bx + Cx2 + Dx3 + Ex4
 r = 9.99995E-1

Constants: A = 0.00000E+0
 B = 8.01588E-1 C = 4.52000E-3
 D = 0.00000E+0 E = 0.00000E+0

SULFUR DIOXIDE *

Date: 28Mar2008 Response Unit: PPM

Z1 = -0.06204 R1 = 983.2868 T1 = 625.5298
 R2 = 983.8308 Z2 = 0.43332 T2 = 625.8280
 Z3 = 0.53444 T3 = 625.8912 R3 = 984.5884

Avg. Concentration: 620.0 PPM

Date: 04Apr2008 Response Unit: PPM

Z1 = 0.23978 R1 = 978.5885 T1 = 620.3260
 R2 = 978.8545 Z2 = 0.40689 T2 = 621.0034
 Z3 = 0.54801 T3 = 621.4454 R3 = 976.9228

Avg. Concentration: 619.8 PPM

Concentration = A + Bx + Cx2 + Dx3 + Ex4
 r = 9.99993E-1

Constants: A = 0.00000E+0
 B = 1.03004E+0 C = 4.00000E-8
 D = 0.00000E+0 E = 0.00000E+0

APPROVED BY:

Rob McCrandall

**AIR LIQUIDE**Scott Specialty Gases
Air Liquide America Specialty Gases LLC**RATA CLASS***Dual-Analyzed Calibration Standard*

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1290 COMBERMERE STREET
TROY, MI 48083

P.O. No.: 08618-DA02

Project No.: 05-64055-002

Customer

AIR QUALITY SERVICES

425 MAIN STREET
EVANSVILLE IN 47708**ANALYTICAL INFORMATION**

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM033390 Certification Date: 04Apr2008 Exp. Date: 04Apr2011

Cylinder Pressure***: 1959 PSIG

COMPONENTCERTIFIED CONCENTRATION (Moles)ANALYTICALACCURACY**TRACEABILITY

CARBON DIOXIDE

11.96 %

+/- 1%

Direct NIST and NMI

SULFUR DIOXIDE *

1,359 PPM

+/- 1%

Direct NIST and NMI

NITROGEN

BALANCE

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

* This Protocol has been certified using corrected NIST SO2 standard values, per EPA guidance dated 7/24/96 and will not correlate with uncorrected Pro

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1800	01Mar2009	K027180	17.87 %	CARBON DIOXIDE
NTRM 1882	15May2010	KAL003112	975.0 PPM	SULFUR DIOXIDE

INSTRUMENTATIONINSTRUMENT/MODEL/SERIAL#DATE LAST CALIBRATEDANALYTICAL PRINCIPLE

FTIR//0928821

20Mar2008

FTIR

FTIR//0928821

03Apr2008

FTIR

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

CARBON DIOXIDE

Date: 28Mar2008 Response Unit: %

Z1 = -0.01029 R1 = 6.96360 T1 = 11.85344

R2 = 6.98966 Z2 = 0.00556 T2 = 11.90496

Z3 = 0.01148 T3 = 11.94403 R3 = 6.99286

Avg. Concentration: 11.96 %

Date: 04Apr2008 Response Unit: %

Z1 = -0.00480 R1 = 17.77216 T1 = 11.83386

R2 = 17.80843 Z2 = -0.00479 T2 = 11.88153

Z3 = -0.00406 T3 = 11.89781 R3 = 17.81178

Avg. Concentration: 11.92 %

Concentration = A + Bx + Cx2 + Dx3 + Ex4

r = 9.99998E-1

Constants: A = 0.00000E+0

B = 6.01588E-1 C = 4.52000E-3

D = 0.00000E+0 E = 0.00000E+0

SULFUR DIOXIDE *

Date: 28Mar2008 Response Unit: PPM

Z1 = -0.06204 R1 = 983.2968 T1 = 1370.800

R2 = 983.8309 Z2 = 0.43332 T2 = 1371.008

Z3 = 0.53444 T3 = 1371.570 R3 = 984.5584

Avg. Concentration: 1359 PPM

Date: 04Apr2008 Response Unit: PPM

Z1 = 0.23978 R1 = 976.5985 T1 = 1360.599

R2 = 976.8545 Z2 = 0.40689 T2 = 1361.548

Z3 = 0.84801 T3 = 1361.952 R3 = 976.8229

Avg. Concentration: 1359 PPM

Concentration = A + Bx + Cx2 + Dx3 + Ex4

r = 9.99993E-1

Constants: A = 0.00000E+0

B = 1.03004E+0 C = 4.00000E-6

D = 0.00000E+0 E = 0.00000E+0

APPROVED BY:

Rob. McCrandall