TechLaw
Quality & Integrity

ESAT Region 8

Perkin Elmer Optima 4300 ICP-OE

2010 MDLs and PQLs
Contract: EP-W-06-33

2010		Dissolved MDL u g/L	Tot Rec. MDL u g/L	Practical MDL u g/L	PQL H20 u g/L	PQL Soil mg/Kg	Linear Range mg/L
Ag	Silver	0.319	0.129	2	10.0	1.0	5
Al	Aluminum	2.86	3.34	20	50.0	5.0	100
As	Arsenic	12.8	18.3	20	50.0	5.0	20
B	Boron	8.68	9.69	50	250.0	25.0	100
Ba	Barium	0.223	0.139	2	5.0	0.5	20
Be	Beryllium	0.068	0.061	2	5.0	0.5	10
Ca	Calcium	6.16	5.08	100	250.0	25.0	1000
Cd	Cadmium	0.356	0.34	2	5.0	0.5	20
Co	Cobalt	0.923	0.803	2	5.0	0.5	20
Cr	Chromium	0.262	0.491	2	5.0	0.5	20
Cu	Copper	0.398	0.263	2	2.0	1.0	100
Fe	Iron	17.5	11.4	100	250.0	25.0	500
K	Potassium	36.6	42.9	250	1000.0	100.0	500
Mg	Magnesium	9.2	9.68	100	250.0	25.0	500
Mn	Manganese	0.158	0.081	2	5.0	0.5	40
Mo	Molybdenum	1.4	1.83	2	10.0	1.0	50
Na	Sodium	17.5	18	250	1000.0	100.0	500
Ni	Nickel	0.932	1.57	2	10.0	1.0	100
Pb	Lead	4.1	3.95	5	25.0	2.5	100
Sb	Antimony	6.9	6.71	20	100.0	10.0	20
Se	Selenium	19.1	13.5	20	100.0	10.0	20
SiO2	Silica	64	4.77	250	1000.0	100.0	100
Sr	Strontium	0.243	0.28	2	10.0	1.0	1
Ti	Titanium	0.708	1.19	5	10.0	1.0	10
Tl	Thallium	5.73	5.7	20	50.0	5.0	20
V	Vanadium	3.26	3.01	10	50.0	5.0	25
Zn	Zinc	1.14	1.71	10	20.0	2.0	100

ICP-OE * MDL determined: February 2010
Last Updated: February 2010

TechLaw

ESAT Region 8

Perkin Elmer ELAN DRC-II ICP-MS

2010 MDLs and PQLs
Contract: EP-W-06-33

2010	Dissolved MDL u g/L	Tot Rec. MDL u g/L	Practical MDL u g/L	PQL H20 ug/L	PQL Soil ug/Kg
Ag 107	0.01	0.01	0.10	0.5	50.0
Al 27	1.18	0.53	5.00	20.0	2000.0
As 75	0.05	0.17	0.50	2.0	200.0
Ba 135	0.06	0.06	5.00	10.0	1000.0
Be 9	0.03	0.07	0.10	0.2	20.0
Cd 111	0.03	0.01	0.10	0.2	20.0
Co 59	0.01	0.01	0.10	0.2	20.0
Cr 52	0.10	0.50	0.50	1.0	100.0
Cu 65	0.26	0.03	0.50	1.0	100.0
Mn 55	0.05	0.19	0.20	0.5	50.0
Mo 98	0.01	0.01	0.10	0.2	20.0
Ni 60	0.09	0.04	0.50	1.0	100.0
Pb 208	0.01	0.01	0.10	0.2	20.0
Sb 121	0.02	0.02	0.50	1.0	100.0
Se 82	0.38	0.50	0.50	1.0	100.0
Tl 205	0.01	0.01	0.50	1.0	100.0
Th 232	0.06	0.03	0.50	1.0	100.0
U 238	0.01	0.01	0.10	0.2	20.0
V 51	0.07	1.00	1.00	2.0	200.0
Zn 66	0.25	0.13	2.00	5.0	500.0

ICP-MS * MDL determined: February 2010

Last Updated: February 2010

TechLaw, Inc.
Environmental Services Assistance Team
16194 W. 45th Drive, Golden, CO 80403
303-312-7720

Task Order: 32
TDF: DG-220
LIMS: C101105
DCN #: EP8-5-5601
Contract: EP-W-06-33

Rico-Argentine – Soil Sediment – Nov 2010

Sample Identification
Cross-Reference Information

EPA Sample ID	ESAT LIMS ID
SLSE02	C101105-01
SLSE04	C101105-02
SLSE05	C101105-03
SLSE10	C101105-04
SLSE15	C101105-05
SLSE15D	C101105-06
SLSE18-06	C101105-07
SLSEPP-06	C101105-08
SLSO01-08	C101105-09
SLSO02-06	C101105-10
SLSO13-06	C101105-11

USEPA
DateShipped: 11/18/2010
CarrierName: Hand Delivery
TDF. No: DG-220

CHAIN OF CUSTODY RECORD
Site #: 11172010
Contact Name: Jan Christner
Contact Phone: 720.810.0795

C101105

No: 11-17-10 Christner

Lab: ESAT - Region 8 Laboratory
Lab Phone: 303.312.7708

Lab #	Sample #	Location	Analyses	Matrix	Collection Method	Collected	Sample Time	Numb Cont	Container	Preservative	MS/MSD
	SLPO01-111710	SLPO01	Total Metals	Surface Water	Grab	11/17/2010	11:19	1	1 L poly	none	workorder
	SLPO01-111710	SLPO01	Dissolved Metals	Surface Water	Grab	11/17/2010	11:19	1	1 L poly	none	C101104
	SLPO02-111710	SLPO02	Alkalinity	Surface Water	Grab	11/17/2010	10:48	1	250 mL poly	4 C	
	SLPO02-111710	SLPO02	Total Metals	Surface Water	Grab	11/17/2010	10:48	1	1 L poly	none	
	SLPO02-111710	SLPO02	Dissolved Metals	Surface Water	Grab	11/17/2010	10:48	1	1 L poly	none	
	SLPO03-111710	SLPO03	Alkalinity	Surface Water	Grab	11/17/2010	10:32	1	250 mL poly	4 C	
	SLPO03-111710	SLPO03	Total Metals	Surface Water	Grab	11/17/2010	10:32	1	1 L poly	none	
	SLPO03-111710	SLPO03	Dissolved Metals	Surface Water	Grab	11/17/2010	10:32	1	1 L poly	none	
	SLPO04-111710	SLPO04	Alkalinity	Surface Water	Grab	11/17/2010	10:15	1	250 mL poly	4 C	
	SLPO04-111710	SLPO04	Total Metals	Surface Water	Grab	11/17/2010	10:15	1	1 L poly	none	
	SLPO04-111710	SLPO04	Dissolved Metals	Surface Water	Grab	11/17/2010	10:15	1	1 L poly	none	
	SLPO05-111710	SLPO05	Alkalinity	Surface Water	Grab	11/17/2010	09:16	1	250 mL poly	4 C	
	SLPO05-111710	SLPO05	Total Metals	Surface Water	Grab	11/17/2010	09:16	1	1 L poly	none	
	SLPO05-111710	SLPO05	Dissolved Metals	Surface Water	Grab	11/17/2010	09:16	1	1 L poly	none	
	SLSE02-111710	SLSE02	Metals	Sediment	Grab	11/17/2010	09:35	1	8 oz glass	4 C	
	SLSE04-111710	SLSE04	Metals	Sediment	Grab	11/17/2010	09:41	1	8 oz glass	4 C	
	SLSE05-111710	SLSE05	Metals	Sediment	Grab	11/17/2010	09:45	1	8 oz glass	4 C	
	SLSE10-111610	SLSE10	Metals	Sediment	Grab	11/16/2010	15:30	1	8 oz glass	4 C	
	SLSE15-06-111610	SLSE15-06	Metals	Sediment	Grab	11/16/2010	15:20	1	8 oz glass	4 C	

Special Instructions:

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	[illegible]		[illegible]	11/18/10	14:10						

USEPA
DateShipped: 11/18/2010
CarrierName: Hand Delivery
TDF No: DG-220

CHAIN OF CUSTODY RECORD
Site #: 11172010
Contact Name: Jan Christner
Contact Phone: 720.810.0795

No: 11-17-10 Christner

Lab: ESAT - Region 8 Laboratory
Lab Phone: 303.312.7708

Lab #	Sample #	Location	Analyses	Matrix	Collection Method	Collected	Sample Time	Numb Cont	Container	Preservative	MS/MSD
	SLSE15D-06-111610	SLSE15D	Metals	Sediment	Grab	11/16/2010	15:20	1	8 oz glass	4 C	
	SLSE18-06-111610	SLSE18-06	Metals	Sediment	Grab	11/16/2010	15:00	1	8 oz glass	4 C	
	SLSEPP-06-111610	SLSEPP-06	Metals	Sediment	Grab	11/16/2010	15:05	1	8 oz glass	4 C	
	SLSO01-08-111610	SLSO01-08	Metals	Soil	Grab	11/16/2010	14:45	1	8 oz glass	4 C	
	SLSO02-06-111610	SLSO02-06	Metals	Soil	Grab	11/16/2010	15:25	1	8 oz glass	4 C	
	SLSO13-06-111610	SLSO13-06	Metals	Soil	Grab	11/16/2010	15:10	1	8 oz glass	4 C	
	SLSW01-111710	SLSW01	~~Alkalinity~~	~~Surface Water~~	~~Grab~~	~~11/17/2010~~	~~11:19~~	~~1~~	~~250 mL poly~~	~~4 C~~	Workorder
	SLSW01-111710	SLSW01	Total Metals	Surface Water	Grab	11/17/2010	11:19	1	1 L poly	none	C10110Y
	SLSW01-111710	SLSW01	Dissolved Metals	Surface Water	Grab	11/17/2010	11:19	1	1 L poly	none	
	SLSW02-111710	SLSW02	Alkalinity	Surface Water	Grab	11/17/2010	10:48	1	250 mL poly	4 C	
	SLSW02-111710	SLSW02	Total Metals	Surface Water	Grab	11/17/2010	10:48	1	1 L poly	none	
	SLSW02-111710	SLSW02	Dissolved Metals	Surface Water	Grab	11/17/2010	10:48	1	1 L poly	none	
	SLSW03-111710	SLSW03	Alkalinity	Surface Water	Grab	11/17/2010	10:10	1	250 mL poly	4 C	
	SLSW03-111710	SLSW03	Total Metals	Surface Water	Grab	11/17/2010	10:10	1	1 L poly	none	
	SLSW03-111710	SLSW03	Dissolved Metals	Surface Water	Grab	11/17/2010	10:10	1	1 L poly	none	
	SLSW04-111710	SLSW04	Alkalinity	Surface Water	Grab	11/17/2010	09:50	1	250 mL poly	4 C	
	SLSW04-111710	SLSW04	Total Metals	Surface Water	Grab	11/17/2010	09:50	1	1 L poly	none	
	SLSW04-111710	SLSW04	~~Dissolved Metals~~	~~Surface Water~~	Grab	11/17/2010	09:50	1	1 L poly	none	

Special Instructions:

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	[illegible]		[illegible]	11/18/10	14:10						

ESAT Technical Direction Form

Contract No. EPW06033
EPA Region 8

C101105

Site ID: 08BU
TDF ID: DG-220

Date Issued: 11/16/2010
Date Updated:

Date Closed By:

Name: Rico - Argentine Samples

Details: The Contractor shall analyze several soil and aqueous samples collected by UOS from the Rico-Argentine Superfund Site. The samples are expected to be delivered to the ESAT R8 Laboratory on approximately 11/19/10. The samples are expected to be analyzed for metals and alkalinity as indicated on the COCs and in the analytical information section below.

The OSC for the site is Steve Way.

Analytical

MATRIX

☑ Water ☑ Soils ☐ Vegetation ☐ Biota

WET CHEM

☐ TSS ☐ TDS ☐ DOC ☑ Alk ☐ Chloride ☐ Sulfate ☐ Fluoride ☐ Nitrate ☐ Nitrite
Other

METALS

☑ Dissolved ☑ Total Recoverable ☐ Total ☑ Hardness (Calc)

200.7: ☐ Ag ☑ Al ☐ As ☑ Ba ☐ Be ☐ B ☑ Ca ☐ Cd ☐ Co ☐ Cr ☐ Cu ☑ Fe ☑ K ☑ Mg
☒ Mn ☐ Mo ☑ Na ☐ Ni ☐ Pb ☐ Sb ☐ Se ☐ Sr ☐ Ti ☐ Tl ☐ V ☑ Zn ☐ SiO2

200.8: ☑ Ag ☐ Al ☑ As ☐ Ba ☐ Be ☑ Cd ☑ Co ☑ Cr ☑ Cu ☑ Mn ☐ Mo ☑ Ni ☑ Pb ☐ Sb
☑ Se ☐ Th ☐ Tl ☐ U ☐ V ☐ Zn

7470/7471/747 ☐ Hg

FIBERS

☐ PLM ☐ TEM

Deliverable

ID	*Description*	*Due Date*	*Submission Date*
1	Provide final deliverable package to Task Monitor no later than 30 days after delivery of samples.	12/20/2010	

Levels of Mn too high for ICP-MS →
Reported by ICP-OE.

TechLaw, Inc.
Environmental Services Assistance Team
16194 W. 45th Drive, Golden, CO 80403
303-312-7720

Task Order: 32
Contract: EP-W-06-33
Valid: April 2010 – May 2011

Certificates of Analysis

Valid through May 1, 2010

Perkin Elmer Optima ICP-OE

Perkin Elmer ELAN 6000 ICP-MS

NIPPON NIC MA2000

Perkin Elmer FIMS 100

- Initial Calibration Verification (ICV) Standards
- Laboratory Check Standards (LCS)
- Matrix Spike Solutions
- Interference Check (ICSA / AB) Standards

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

13594
4/6/10

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 863.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Aluminum in 3% (v/v) HNO3**

Catalog Number:	CGAL1-1, CGAL1-2, and CGAL1-5
Lot Number:	**C2-AL04078**
Starting Material:	Al ingot
Starting Material Purity (%):	99.998788
Starting Material Lot No:	C14S012
Matrix:	3% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1003 ± 5 µg/mL

Certified Density: 1.017 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **1003 ± 5 µg/mL**
ICP Assay NIST SRM 3101a Lot Number: 060502

Assay Method #2 **1002 ± 8 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

13596
4/6/10

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Antimony in 1% (v/v) HNO3 / 3% Tartaric Acid**

Catalog Number:	CGSB1-1, CGSB1-2 and CGSB1-5
Lot Number:	**C2-SB02121**
Starting Material:	Sb shot
Starting Material Purity (%):	99.996681
Starting Material Lot No:	R1105SBA1
Matrix:	1% (v/v) HNO3 / 3% Tartaric Acid

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 990 ± 4 µg/mL

Certified Density: 1.021 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **990 ± 4 µg/mL (avg. of 2 runs)**
ICP Assay NIST SRM 3102A Lot Number: 061229

Assay Method #2 **1000 ± 5 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

13597
4/6/10

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Arsenic in 2% (v/v) HNO3**

Catalog Number:	CGAS1-1, CGAS1-2, and CGAS1-5
Lot Number:	**C2-AS02061**
Starting Material:	As pieces
Starting Material Purity (%):	99.999032
Starting Material Lot No:	R1107ASB1
Matrix:	2% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 999 ± 4 µg/mL

Certified Density: 1.011 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **999 ± 4 µg/mL**
ICP Assay NIST SRM 3103a Lot Number: 010713

Assay Method #2 **1001 ± 5 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

13598
8/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Barium in tr. HNO3**

Catalog Number:	CGBA1-1, CGBA1-2, and CGBA1-5
Lot Number:	**C2-BA02050**
Starting Material:	Ba(NO3)2
Starting Material Purity (%):	99.999911
Starting Material Lot No:	W500A
Matrix:	tr. HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1,000 ± 2 µg/mL

Certified Density: 1.000 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **999 ± 4 µg/mL**
ICP Assay NIST SRM 3104a Lot Number: 070222

Assay Method #2 **1,000 ± 2 µg/mL**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13600 ~~13599~~
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Beryllium in 3% (v/v) HNO3**

Catalog Number:	CGBE1-1, CGBE1-2, and CGBE1-5
Lot Number:	**C2-BE01124**
Starting Material:	Be(OOCCH3)2
Starting Material Purity (%):	99.999948
Starting Material Lot No:	0801-1
Matrix:	3% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1003 ± 4 µg/mL

Certified Density: 1.022 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **1003 ± 4 µg/mL**
ICP Assay NIST SRM 3105a Lot Number: 892707

Assay Method #2 **1001 ± 5 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

13599
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Boron in H2O**

Catalog Number:	CGB1-1, CGB1-2, and CGB1-5
Lot Number:	**C2-B02083**
Starting Material:	H3BO3
Starting Material Purity (%):	99.999998
Starting Material Lot No:	OV0133
Matrix:	H2O

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 998 ± 3 µg/mL

Certified Density: 1.000 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **998 ± 3 µg/mL**
ICP Assay NIST SRM 3107 Lot Number: 070514

Assay Method #2 **1,001 ± 5 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

13601
4/6/10

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **10000 µg/mL Bromide (NH4) in H20**

Catalog Number:	CGICBR10-1 and CGICBR10-5
Lot Number:	**A2-BR01066**
Starting Material:	NH4Br
Starting Material Purity (%):	99.998491
Starting Material Lot No:	DI05205EU
Matrix:	H20

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 9993 ± 34 µg/mL

Certified Density: 1.004 g/mL (measured at 20 ± 1°C)

The Certified Value is based upon the most precise method used to analyze this CRM. The following equations are used in the calculation of the certified value and the uncertainty.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instumental measurement, weighing, dilution to volume and the fixed error reported on the NIST SRM certificate of analysis)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **9993 ± 34 µg/mL**
IC Assay NIST SRM 3184 Lot Number: 020701

Assay Method #2 **9976 ± 47 µg/mL**
Volhard NIST SRM 999b Lot Number: 999b

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13502
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Cadmium in 3% (v/v) HNO3**

Catalog Number:	CGCD1-1, CGCD1-2, and CGCD1-5
Lot Number:	**C2-CD02021**
Starting Material:	Cd shot
Starting Material Purity (%):	99.999656
Starting Material Lot No:	R1205CDA1
Matrix:	3% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 998 ± 3 µg/mL

Certified Density: 1.015 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value ($\bar{x}$) = $\frac{\Sigma x_i}{n}$

Uncertainty (±) = $\frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

($\bar{x}$) = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **995 ± 3 µg/mL**
ICP Assay NIST SRM 3108 Lot Number: 060531

Assay Method #2 **998 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13e03
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Calcium in 0.1% (v/v) HNO3**

Catalog Number:	CGCA1-1, CGCA1-2, and CGCA1-5
Lot Number:	**C2-CA03123**
Starting Material:	CaCO3
Starting Material Purity (%):	99.998463
Starting Material Lot No:	C808CAA1
Matrix:	0.1% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 997 ± 3 µg/mL

Certified Density: 1.001 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **993 ± 3 µg/mL**
ICP Assay NIST SRM 3109a Lot Number: 050825

Assay Method #2 **997 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13605
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Chromium (+3) in 2% (v/v) HNO3**

Catalog Number:	CGCR(3)1-1, CGCR(3)1-2, and CGCR(3)1-5
Lot Number:	**C2-CR03027**
Starting Material:	Cr pieces
Starting Material Purity (%):	99.993508
Starting Material Lot No:	R800A
Matrix:	2% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 990 ± 3 µg/mL

Certified Density: 1.013 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **990 ± 3 µg/mL**
ICP Assay NIST SRM 3112a Lot Number: 030730

Assay Method #2 **1000 ± 5 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13606
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM — 1000 µg/mL Cobalt in 3% (v/v) HNO3

Catalog Number:	CGCO1-1, CGCO1-2, and CGCO1-5
Lot Number:	**C2-CO02022**
Starting Material:	Co powder
Starting Material Purity (%):	99.997920
Starting Material Lot No:	PW407COA1
Matrix:	3% (v/v) HNO3

EXPIRES
1-May-2011

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Concentration: 995 ± 3 µg/mL

Certified Density: 1.018 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value ($\bar{x}$) = $\frac{\Sigma x_i}{n}$ — ($\bar{x}$) = mean; x_i = individual results; n = number of measurements

Uncertainty (±) = $\frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$ — Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** — **995 ± 3 µg/mL**
ICP Assay NIST SRM 3113 Lot Number: 00630

Assay Method #2 — **1,004 ± 4 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13807
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 863.01

ACCREDITED Reference Material Producer Certificate 863.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Copper in 3% (v/v) HNO3**

Catalog Number:	CGCU1-1, CGCU1-2, and CGCU1-5
Lot Number:	**C2-CU02116**
Starting Material:	Cu shot
Starting Material Purity (%):	99.999779
Starting Material Lot No:	R508CUA2
Matrix:	3% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 992 ± 3 µg/mL

Certified Density: 1.015 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **994 ± 4 µg/mL**
ICP Assay NIST SRM 3114 Lot Number: 011017

Assay Method #2 **992 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13608
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Gadolinium in 7% (v/v) HNO3**

Catalog Number:	CGGD1-1, CGGD1-2, and CGGD1-5
Lot Number:	**C2-GD01038**
Starting Material:	Gd2O3
Starting Material Purity (%):	99.999400
Starting Material Lot No:	GD-0-5-026
Matrix:	7% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1,001 ± 3 µg/mL

Certified Density: 1.035 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **1,001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #2 **999 ± 3 µg/mL**
ICP Assay NIST SRM 3118a Lot Number: 992004

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13609
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Iron in 2% (v/v) HNO3**

Catalog Number:	CGFE1-1, CGFE1-2, and CGFE1-5
Lot Number:	**C2-FE03104**
Starting Material:	Fe powder
Starting Material Purity (%):	99.997283
Starting Material Lot No:	R1207FEA1
Matrix:	2% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 996 ± 3 µg/mL

Certified Density: 1.011 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty (±) $= \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **993 ± 4 µg/mL**
ICP Assay NIST SRM 3126a Lot Number: 051031

Assay Method #2 **996 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

13611
4/6/10

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Lead in 0.5% (v/v) HNO3**

Catalog Number:	CGPB1-1, CGPB1-2, and CGPB1-5
Lot Number:	**C2-PB03013**
Starting Material:	Pb(NO3)2
Starting Material Purity (%):	99.999554
Starting Material Lot No:	E1007PBA1
Matrix:	0.5% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1004 ± 4 µg/mL

Certified Density: 1.001 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **999 ± 5 µg/mL**
ICP Assay NIST SRM 3128 Lot Number: 030721

Assay Method #2 **1004 ± 4 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13612
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Lithium in 0.1% (v/v) HNO3**

Catalog Number:	CGLI1-1, CGLI1-2, and CGLI1-5
Lot Number:	**C2-LI02113**
Starting Material:	Li2CO3
Starting Material Purity (%):	99.997165
Starting Material Lot No:	1123
Matrix:	0.1% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 997 ± 1 µg/mL

Certified Density: 1.005 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **994 ± 3 µg/mL**
ICP Assay NIST SRM 3129a Lot Number: 000505

Assay Method #2 **997 ± 1 µg/mL**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

136134
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Magnesium in 0.1% (v/v) HNO3**

Catalog Number:	CGMG1-1, CGMG1-2, and CGMG1-5
Lot Number:	**C2-MG03084**
Starting Material:	Mg metal
Starting Material Purity (%):	99.999531
Starting Material Lot No:	00265067003
Matrix:	0.1% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 997 ± 3 µg/mL

Certified Density: 1.002 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **995 ± 3 µg/mL**
ICP Assay NIST SRM 3131a Lot Number: 050302

Assay Method #2 **997 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13615
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Manganese in 3% HNO3 (v/v)**

Catalog Number:	CGMN1-1, CGMN1-2, and CGMN1-5
Lot Number:	**B2-MN02070**
Starting Material:	Mn pieces
Starting Material Purity (%):	99.994492
Starting Material Lot No:	R806MNA1
Matrix:	3% HNO3 (v/v)

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1,005 ± 2 µg/mL

Certified Density: 1.016 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value ($\bar{x}$) = $\frac{\Sigma x_i}{n}$

Uncertainty (±) = $\frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

($\bar{x}$) = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **1,005 ± 2 µg/mL**
ICP Assay NIST SRM 3132 Lot Number: 050429

Assay Method #2 **1,004 ± 2 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

136016
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 863.01 — ACCREDITED Reference Material Producer Certificate 863.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Mercury in 5% (v/v) HNO3**

Catalog Number:	CGHG1-1, CGHG1-2, and CGHG1-5
Lot Number:	**C2-HG02070**
Starting Material:	Hg metal
Starting Material Purity (%):	99.999792
Starting Material Lot No:	R307HGA1
Matrix:	5% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1003 ± 3 µg/mL

Certified Density: 1.027 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **999 ± 5 µg/mL**
ICP Assay NIST SRM 3133 Lot Number: 061204

Assay Method #2 **1003 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13617
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Molybdenum in H2O / tr. NH4OH**

Catalog Number:	CGMO1-1, CGMO1-2, and CGMO1-5
Lot Number:	**C2-MO02032**
Starting Material:	(NH4)6Mo7O24xH2O
Starting Material Purity (%):	99.998755
Starting Material Lot No:	P704MOA1
Matrix:	H2O / tr. NH4OH

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 999 ± 3 µg/mL

Certified Density: 0.999 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **999 ± 3 µg/mL (Avg. of 2 Runs)**
ICP Assay NIST SRM 3134 Lot Number: 891307

Assay Method #2 **1001 ± 5 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

13618
4/6/10

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Nickel in 2% (v/v) HNO3**

Catalog Number:	CGNI1-1, CGNI1-2, and CGNI1-5
Lot Number:	**C2-NI02062**
Starting Material:	Ni pieces
Starting Material Purity (%):	99.999033
Starting Material Lot No:	E25T014
Matrix:	2% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1003 ± 3 µg/mL

Certified Density: 1.012 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **998 ± 3 µg/mL**
ICP Assay NIST SRM 3136 Lot Number: 000612

Assay Method #2 **1003 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 732.901.1900
fax: 732.901.1903
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13620
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM — 1000 µg/mL Potassium in 1% HNO3

Catalog Number:	CGK1-1, CGK1-2, and CGK1-5
Lot Number:	**C2-K03004**
Starting Material:	KNO3
Starting Material Purity (%):	99.996911
Starting Material Lot No:	B19P01
Matrix:	1% HNO3

EXPIRES
1-May-2011

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Concentration: 1006 ± 4 µg/mL

Certified Density: 1.004 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **1006 ± 4 µg/mL**
ICP Assay NIST SRM 3141a Lot Number: 051220

Assay Method #2 **1007 ± 2 µg/mL**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13621
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Selenium(+4) in 2% (v/v) HNO3**

Catalog Number:	CGSE(4)1-1, CGSE(4)1-2, and CGSE(4)1-5
Lot Number:	**C2-SE02010**
Starting Material:	Se shot
Starting Material Purity (%):	99.999239
Starting Material Lot No:	B14A38
Matrix:	2% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 992 ± 4 µg/mL

Certified Density: 1.010 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instumental measurement, weighing, dilution to volume and the fixed error reported on the NIST SRM certificate of analysis)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **992 ± 4 µg/mL (avg. of 2 runs)**
ICP Assay NIST SRM 3149 Lot Number: 992106

Assay Method #2 **1000 ± 5 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13622
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Silica in 1% (v/v) HNO3 / tr. HF**

Catalog Number:	CGSIO1-1, CGSIO1-2, and CGSIO1-5
Lot Number:	**C2-SI02130**
Starting Material:	SiO2
Starting Material Purity (%):	99.999846
Starting Material Lot No:	1015122300.00
Matrix:	1% (v/v) HNO3 / tr. HF

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 999 ± 2 µg/mL

Certified Density: 1.005 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **999 ± 2 µg/mL (Avg. of 2 Runs)**
ICP Assay NIST SRM 3150 Lot Number: 071204

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13623
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Silver in 5% (v/v) HNO3**

Catalog Number:	CGAG1-1, CGAG1-2, and CGAG1-5
Lot Number:	**C2-AG02042**
Starting Material:	Ag shot
Starting Material Purity (%):	99.991024
Starting Material Lot No:	E308AGA1
Matrix:	5% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1001 ± 1 µg/mL

Certified Density: 1.024 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instumental measurement, weighing, dilution to volume and the fixed error reported on the NIST SRM certificate of analysis)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **996 ± 5 µg/mL**
ICP Assay NIST SRM 3151 Lot Number: 992212

Assay Method #2 **1001 ± 1 µg/mL**
Volhard NIST SRM 999b Lot Number: 999b

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1 36-24
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Sodium in 0.1% (v/v) HNO3**

Catalog Number:	CGNA1-1, CGNA1-2, and CGNA1-5
Lot Number:	**C2-NA03074**
Starting Material:	Na2CO3
Starting Material Purity (%):	99.997122
Starting Material Lot No:	C18157
Matrix:	0.1% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1,006 ± 5 µg/mL

Certified Density: 1.001 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **1,006 ± 5 µg/mL**
ICP Assay NIST SRM 3152a Lot Number: 010728

Assay Method #2 **1,008 ± 5 µg/mL**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13626
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Strontium in 0.1% (v/v) HNO3**

Catalog Number:	CGSR1-1, CGSR1-2, and CGSR1-5
Lot Number:	**C2-SR02024**
Starting Material:	SrCO3
Starting Material Purity (%):	99.998364
Starting Material Lot No:	W999A
Matrix:	0.1% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1002 ± 3 µg/mL

Certified Density: 1.000 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **1002 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #2 **1000 ± 5 µg/mL**
ICP Assay NIST SRM 3153a Lot Number: 990906

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

73628
4/4/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Thallium in 0.7% (v/v) HNO3**

Catalog Number:	CGTL1-1, CGTL1-2, and CGTL1-5
Lot Number:	**D2-TL01111**
Starting Material:	TlNO3
Starting Material Purity (%):	99.999671
Starting Material Lot No:	1479
Matrix:	0.7% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1,000 ± 4 µg/mL

Certified Density: 1.003 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **1,000 ± 4 µg/mL (avg. of 2 runs)**
ICP Assay NIST SRM 3158 Lot Number: 993012

Assay Method #2 **1,001 ± 5 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES

195 Lehigh Avenue, Suite 4
Lakewood, New Jersey 08701 · USA
inorganicventures.com

tel: 800.669.6799 · 732.901.1900
fax: 732.901.1903
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Thorium in 4% (v/v) HNO3**

Catalog Number:	CGTH1-1, CGTH1-2, and CGTH1-5
Lot Number:	**B2-TH01073**
Starting Material:	Th(NO3)4x4H2O
Starting Material Purity (%):	99.998809
Starting Material Lot No:	X-25828-7
Matrix:	4% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1,003 ± 3 µg/mL

Certified Density: 1.021 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **1,003 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #2 **1,002 ± 5 µg/mL**
ICP Assay NIST SRM 3159 Lot Number: 992912

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13627
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 863.01

ACCREDITED Reference Material Producer Certificate 863.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Tin in tr. (v/v) HNO3 / tr. (v/v) HF**

Catalog Number:	CGSN1-1, CGSN1-2, and CGSN1-5
Lot Number:	**C2-SN02024**
Starting Material:	Sn Shot
Starting Material Purity (%):	99.991456
Starting Material Lot No:	F27N16
Matrix:	tr. (v/v) HNO3 / tr. (v/v) HF

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 993 ± 4 µg/mL

Certified Density: 0.999 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **993 ± 4 µg/mL (avg. of 2 runs)**
ICP Assay NIST SRM 3161a Lot Number: 070330

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13638 4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Titanium in 2% (v/v) HNO3 / tr. HF**

Catalog Number:	CGTI1-1, CGTI1-2, and CGTI1-5
Lot Number:	**C2-TI02065**
Starting Material:	Ti turnings
Starting Material Purity (%):	99.996450
Starting Material Lot No:	R404TIA1
Matrix:	2% (v/v) HNO3 / tr. HF

EXPIRES 1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 991 ± 4 µg/mL

Certified Density: 1.010 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **991 ± 4 µg/mL (avg. of 2 runs)**
ICP Assay NIST SRM 3162a · Lot Number: 060808

Assay Method #2 **1000 ± 5 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™

300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13630
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM — 1000 µg/mL Uranium in 1.4% (v/v) HNO3

Catalog Number:	CGU1-1, CGU1-2, and CGU1-5
Lot Number:	**C2-U01079**
Starting Material:	UO2(NO3)2.6H2O
Starting Material Purity (%):	99.999942
Starting Material Lot No:	N55947
Matrix:	1.4% (v/v) HNO3

EXPIRES
1-May-2011

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Concentration: 1003 ± 3 µg/mL

Certified Density: 1.006 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value ($\bar{x}$) = $\frac{\Sigma x_i}{n}$

Uncertainty (±) = $\frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

($\bar{x}$) = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

Certified Abundance: The 235U in this standard is depleted. The Certified abundances in Atom % are as follows:

IV's Certified Abundance

Isotope	Atom%
Uranium 238U	99.7 ± 0.1
235U	0.29 ± 0.05

4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **1003 ± 3 µg/mL (avg. of 2 runs)**
ICP Assay NIST SRM 3164 Lot Number: 891509

Assay Method #2 **1000 ± 5 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13631
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Vanadium in 2% (v/v) HNO3**

Catalog Number:	CGV1-1, CGV1-2, and CGV1-5
Lot Number:	**C2-V02057**
Starting Material:	V2O5
Starting Material Purity (%):	99.991399
Starting Material Lot No:	Stractor 46
Matrix:	2% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 996 ± 2 µg/mL

Certified Density: 1.014 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value ($\bar{x}$) = $\frac{\Sigma x_i}{n}$

($\bar{x}$) = mean
x_i = individual results
n = number of measurements

Uncertainty (±) = $\frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **997 ± 4 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #2 **996 ± 2 µg/mL**
ICP Assay NIST SRM 3165 Lot Number: 992706

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13632
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM — 1000 µg/mL Zinc in 2% (v/v) HNO3

Catalog Number:	CGZN1-1, CGZN1-2, and CGZN1-5
Lot Number:	**D2-ZN02061**
Starting Material:	Zn shot
Starting Material Purity (%):	99.999384
Starting Material Lot No:	R1207ZNA1
Matrix:	2% (v/v) HNO3

EXPIRES
1-May-2011

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Concentration: 1,007 ± 3 µg/mL

Certified Density: 1.012 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instumental measurement, weighing, dilution to volume and the fixed error reported on the NIST SRM certificate of analysis)

4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **1,012 ± 3 µg/mL**
ICP Assay NIST SRM 3168a Lot Number: 080123

Assay Method #2 **1,007 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

13595
4/6/10

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **10000 µg/mL Aluminum in 7% v/v HNO3**

Catalog Number:	CGAL10-1, CGAL10-2, and CGAL10-5
Lot Number:	**D2-AL04081**
Starting Material:	Al ingot
Starting Material Purity (%):	99.998843
Starting Material Lot No:	C14S012
Matrix:	7% v/v HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 10,015 ± 26 µg/mL

Certified Density: 1.085 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **9996 ± 4 µg/mL**
ICP Assay NIST SRM 3101a Lot Number: 060502

Assay Method #2 **10,015 ± 26 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13[redacted]604
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 · ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **10000 µg/mL Calcium in 2% (v/v) HNO3**

Catalog Number:	CGCA10-1, CGCA10-2, and CGCA10-5
Lot Number:	**C2-CA03132**
Starting Material:	CaO
Starting Material Purity (%):	99.997483
Starting Material Lot No:	G47339
Matrix:	2% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 10,027 ± 31 µg/mL

Certified Density: 1.040 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **10,027 ± 31 µg/mL**
ICP Assay NIST SRM 3109a Lot Number: 050825

Assay Method #2 **10,048 ± 30 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

13610
4/6/10

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM — 10000 µg/mL Iron in 5% (v/v) HNO3

Catalog Number:	CGFE10-1, CGFE10-2, and CGFE10-5
Lot Number:	**C2-FE03101**
Starting Material:	Fe powder
Starting Material Purity (%):	99.999485
Starting Material Lot No:	R1207FEA1
Matrix:	5% (v/v) HNO3

EXPIRES
1-May-2011

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Concentration: 10,011 ± 20 µg/mL

Certified Density: 1.064 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors
(Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **9994 ± 26 µg/mL**
ICP Assay NIST SRM 3126a Lot Number: 051031

Assay Method #2 **10,011 ± 20 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13613
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **10000 µg/mL Magnesium in 2% (v/v) HNO3**

Catalog Number:	CGMG10-1, CGMG10-2, and CGMG10-5
Lot Number:	**C2-MG03078**
Starting Material:	Mg metal
Starting Material Purity (%):	99.999013
Starting Material Lot No:	00265067003
Matrix:	2% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 10,038 ± 30 µg/mL

Certified Density: 1.053 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **10,007 ± 32 µg/mL**
ICP Assay NIST SRM 3131a Lot Number: 050302

Assay Method #2 **10,038 ± 30 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13619
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **10000 µg/mL Potassium in 2% (v/v) HNO3**

Catalog Number:	CGK10-1, CGK10-2, and CGK10-5
Lot Number:	**C2-K03005**
Starting Material:	KNO3
Starting Material Purity (%):	99.996914
Starting Material Lot No:	B19P01
Matrix:	2% (v/v) HNO3

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 9981 ± 28 µg/mL

Certified Density: 1.024 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **10,006 ± 52 µg/mL**
ICP Assay NIST SRM 3141a Lot Number: 051220

Assay Method #2 **9981 ± 28 µg/mL**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13625
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **10000 µg/mL Sodium in 2% HNO3 (v/v)**

Catalog Number:	CGNA10-1, CGNA10-2, and CGNA10-5
Lot Number:	**B2-NA03063**
Starting Material:	Na2CO3
Starting Material Purity (%):	99.999644
Starting Material Lot No:	C181157
Matrix:	2% HNO3 (v/v)

EXPIRES
1-May-2011

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 9,941 ± 42 µg/mL

Certified Density: 1.034 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 **Assay Method #1** **9,941 ± 42 µg/mL**
ICP Assay NIST SRM 3152a Lot Number: 010728

Assay Method #2 **9,996 ± 12 µg/mL**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

13646
4/10

2.0 **DESCRIPTION OF CRM** Stock Second Source Solution

Catalog No.: QCP-QCS-1

Lot Number: **D2-MEB317042**

Matrix: 5% HNO3(v/v)

EXPIRES
1-May-2011

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

500.00 µg/mL ea:
K, P, Tl,

200.00 µg/mL ea:
As, Hg, Pb,

100.00 µg/mL ea:
Al, B, Ba, Be, Ca, Cd, Ce, Co, Cr3, Cu, Fe, Li, Mg, Mn, Na, Ni, Se, Sr, V, Zn,

25.00 µg/mL ea:
Ag

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	99.9 ± 0.3 µg/mL	Arsenic, As	200.0 ± 0.6 µg/mL	Barium, Ba	100.0 ± 0.1 µg/mL
Beryllium, Be	100.0 ± 0.2 µg/mL	Boron, B	100.0 ± 0.4 µg/mL	Cadmium, Cd	100.0 ± 0.2 µg/mL
Calcium, Ca	100.1 ± 0.3 µg/mL	Cerium, Ce	100.0 ± 0.3 µg/mL	Chromium+3, Cr3	100.1 ± 0.4 µg/mL
Cobalt, Co	100.0 ± 0.2 µg/mL	Copper, Cu	99.9 ± 0.3 µg/mL	Iron, Fe	100.0 ± 0.2 µg/mL
Lead, Pb	200.0 ± 0.8 µg/mL	Lithium, Li	100.0 ± 0.3 µg/mL	Magnesium, Mg	99.6 ± 0.4 µg/mL
Manganese, Mn	100.1 ± 0.2 µg/mL	Mercury, Hg	200.0 ± 0.5 µg/mL	Nickel, Ni	99.6 ± 0.3 µg/mL
Phosphorus, P	500.0 ± 1.5 µg/mL	Potassium, K	500.0 ± 3.0 µg/mL	Selenium, Se	100.0 ± 1.0 µg/mL
Silver, Ag	25.06 ± 0.13 µg/mL	Sodium, Na	99.8 ± 0.4 µg/mL	Strontium, Sr	100.0 ± 0.3 µg/mL
Thallium, Tl	500.0 ± 2.0 µg/mL	Vanadium, V	100.0 ± 0.3 µg/mL	Zinc, Zn	99.7 ± 0.3 µg/mL

Certified Density: 1.037 g/mL (measured at 20 ± 1°C)

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

136872
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** Stock Second Source Solution

Catalog No.: QCP-QCS-2

Lot Number: **D2-MEB324018**

Matrix: tr. HF, 5% HNO3(v/v)

EXPIRES 1-May-2011

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

500.00 µg/mL ea:
SiO2, Sn,

200.00 µg/mL ea:
Sb,

100.00 µg/mL ea:
Mo, Ti

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	200.0 ± 0.5 µg/mL	Molybdenum, Mo	100.1 ± 0.4 µg/mL	Silica, SiO2	500.0 ± 2.4 µg/mL
Tin, Sn	500.0 ± 1.4 µg/mL	Titanium, Ti	100.0 ± 0.3 µg/mL		

Certified Density: 1.024 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instumental measurement, weighing, dilution to volume and the fixed error reported on the NIST SRM certificate of analysis)

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.
· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs a available, the term 'in-house std.' is specified.

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13649
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** Stock Second Source Solution

Catalog No.: QCP-QCS-3

Lot Number: **D2-MEB324067**

Matrix: 7% HNO3(v/v)

EXPIRES
1-May-2011

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

50.00 µg/mL ea:
Se,

10.00 µg/mL ea:
Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr3, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Th, Tl, U, V, Zn

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	10.01 ± 0.02 µg/mL	Antimony, Sb	10.02 ± 0.02 µg/mL	Arsenic, As	10.00 ± 0.03 µg/mL
Barium, Ba	10.00 ± 0.01 µg/mL	Beryllium, Be	10.00 ± 0.02 µg/mL	Cadmium, Cd	10.01 ± 0.02 µg/mL
Calcium, Ca	10.01 ± 0.03 µg/mL	Chromium+3, Cr3	10.00 ± 0.04 µg/mL	Cobalt, Co	10.00 ± 0.04 µg/mL
Copper, Cu	10.00 ± 0.02 µg/mL	Iron, Fe	10.01 ± 0.03 µg/mL	Lead, Pb	10.00 ± 0.02 µg/mL
Magnesium, Mg	10.01 ± 0.03 µg/mL	Manganese, Mn	10.00 ± 0.05 µg/mL	Molybdenum, Mo	10.02 ± 0.04 µg/mL
Nickel, Ni	10.00 ± 0.03 µg/mL	Potassium, K	10.01 ± 0.03 µg/mL	Selenium, Se	49.99 ± 0.13 µg/mL
Silver, Ag	10.00 ± 0.05 µg/mL	Sodium, Na	10.01 ± 0.02 µg/mL	Thallium, Tl	10.00 ± 0.02 µg/mL
Thorium, Th	9.94 ± 0.03 µg/mL	Uranium, U	10.02 ± 0.04 µg/mL	Vanadium, V	10.00 ± 0.03 µg/mL
Zinc, Zn	10.00 ± 0.04 µg/mL				

Certified Density: 1.034 g/mL (measured at 20 ± 1°C)

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

13654
4/6/10

2.0 **DESCRIPTION OF CRM** Custom Second Source Solution

Catalog No.: QCP-QCS-4

Lot Number: **C2-MEB236111**

Matrix: 7% HNO3(v/v)

EXPIRES 1-May-2011

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

5.00 µg/mL ea:
Hg

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Mercury, Hg	4.982 ± 0.012 µg/mL				

Certified Density: 1.034 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors
(Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#	ELEMENT	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	061204	Hg	EDTA	928	928

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 583.01

ACCREDITED Reference Material Producer Certificate 583.02

13662
7/6/10

2.0 **DESCRIPTION OF CRM** Stock Solution

Catalog No.: WW-LFS-1

Lot Number: **B2-MEB236093**

Matrix: 5% HNO3(v/v)

EXPIRES
1-May-2011

1,000.00 µg/mL ea:
K,

600.00 µg/mL ea:
P,

300.00 µg/mL ea:
Fe, Na,

200.00 µg/mL ea:
Al, Ce, Mg, Se, Tl,

100.00 µg/mL ea:
Ca, Pb,

80.00 µg/mL ea:
As,

70.00 µg/mL ea:
Hg,

50.00 µg/mL ea:
Ni,

40.00 µg/mL ea:
Cr3,

30.00 µg/mL ea:
B, Cu, V,

20.00 µg/mL ea:
Ba, Be, Cd, Co, Li, Mn, Sr, Zn,

7.50 µg/mL ea:
Ag

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	199.5 ± 0.5 µg/mL	Arsenic, As	80.0 ± 0.3 µg/mL	Barium, Ba	20.04 ± 0.08 µg/mL
Beryllium, Be	19.96 ± 0.04 µg/mL	Boron, B	30.08 ± 0.11 µg/mL	Cadmium, Cd	20.02 ± 0.05 µg/mL
Calcium, Ca	99.9 ± 0.3 µg/mL	Cerium, Ce	200.0 ± 0.6 µg/mL	Chromium+3, Cr3	39.85 ± 0.15 µg/mL
Cobalt, Co	20.05 ± 0.08 µg/mL	Copper, Cu	29.92 ± 0.11 µg/mL	Iron, Fe	298.6 ± 0.6 µg/mL
Lead, Pb	100.0 ± 0.4 µg/mL	Lithium, Li	20.00 ± 0.08 µg/mL	Magnesium, Mg	199.2 ± 0.8 µg/mL
Manganese, Mn	19.90 ± 0.05 µg/mL	Mercury, Hg	69.9 ± 0.1 µg/mL	Nickel, Ni	49.87 ± 0.14 µg/mL

INORGANIC VENTURES™

300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

13661
4/6/10

2.0 **DESCRIPTION OF CRM** Stock Solution

Catalog No.: WW-LFS-2

Lot Number: **B2-MEB236102**

Matrix: tr. HF, 5% HNO3(v/v)

EXPIRES
1-May-2011

200.00 µg/mL ea:
SiO2,

80.00 µg/mL ea:
Sb,

70.00 µg/mL ea:
Sn,

40.00 µg/mL ea:
Mo,

20.00 µg/mL ea:
Ti

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	80.2 ± 0.2 µg/mL	Molybdenum, Mo	40.05 ± 0.10 µg/mL	Silica, SiO2	199.5 ± 0.4 µg/mL
Tin, Sn	69.9 ± 0.2 µg/mL	Titanium, Ti	20.04 ± 0.04 µg/mL		

Certified Density: 1.022 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 955.01

ACCREDITED Reference Material Producer Certificate 955.02

13643
4/4/10

2.0 DESCRIPTION OF CRM

Stock Solution

Catalog No.: 6020ICS-0A

Lot Number: **C2-MEB307012**

Matrix: 1.4% HNO3(v/v)

EXPIRES
1-May-2011

10,000.00 µg/mL ea:
Chloride,

2,000.00 µg/mL ea:
C,

1,000.00 µg/mL ea:
Al, Ca, Fe, K, Mg, Na, P, S,

20.00 µg/mL ea:
Mo, Ti

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	1,002 ± 3 µg/mL	Calcium, Ca	1,002 ± 3 µg/mL	Carbon, C	2,004 ± 10 µg/mL
Chloride, Chloride	10,020.0 ± 20.0 µg/mL	Iron, Fe	1,002 ± 3 µg/mL	Magnesium, Mg	1,002 ± 3 µg/mL
Molybdenum, Mo	20.04 ± 0.07 µg/mL	Phosphorus, P	1,002 ± 5 µg/mL	Potassium, K	1,002 ± 3 µg/mL
Sodium, Na	1,002 ± 2 µg/mL	Sulfur, S	1,002 ± 5 µg/mL	Titanium, Ti	20.09 ± 0.06 µg/mL

Certified Density: 1.033 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

13645
4/6/10

2.0 DESCRIPTION OF CRM

	Stock Solution
Catalog No.:	6020ICS-0B
Lot Number:	**A2-MEB194156**
Matrix:	2% HNO3(v/v)

EXPIRES 1-May-2011

2.00 µg/mL ea:
Ag, As, Cd, Co, Cr3, Cu, Mn, Ni, Zn

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Arsenic, As	2.002 ± 0.012 µg/mL	Cadmium, Cd	2.004 ± 0.008 µg/mL	Chromium+3, Cr3	2.001 ± 0.004 µg/mL
Cobalt, Co	2.000 ± 0.008 µg/mL	Copper, Cu	1.998 ± 0.006 µg/mL	Manganese, Mn	2.005 ± 0.004 µg/mL
Nickel, Ni	2.004 ± 0.004 µg/mL	Silver, Ag	2.004 ± 0.006 µg/mL	Zinc, Zn	1.998 ± 0.004 µg/mL

Certified Density: 1.009 g/mL (measured at 22° C)

The Certified Value is based upon the most precise method used to analyze this CRM. The following equations are used in the calculation of the certified value and the uncertainty.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 732.901.1900
fax: 732.901.1903
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 863.01

ACCREDITED Reference Material Producer Certificate 863.02

13644
4/6/10

2.0 **DESCRIPTION OF CRM** Stock Solution

Catalog No.: 6020SPK-W

Lot Number: **B2-CICP22006**

Matrix: 5% HNO3(abs)

EXPIRES
1-May-2011

100.00 µg/mL ea:
Fe,

50.00 µg/mL ea:
Ba, Zn,

20.00 µg/mL ea:
Co, Cr3, Cu, Mn, Ni, Sb, V,

10.00 µg/mL ea:
As, Pb,

5.00 µg/mL ea:
Ag, Be, Cd, Se, Tl

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	20.03 ± 0.04 µg/mL	Arsenic, As	10.04 ± 0.03 µg/mL	Barium, Ba	50.15 ± 0.08 µg/mL
Beryllium, Be	4.989 ± 0.010 µg/mL	Cadmium, Cd	5.016 ± 0.015 µg/mL	Chromium+3, Cr3	19.99 ± 0.08 µg/mL
Cobalt, Co	20.01 ± 0.10 µg/mL	Copper, Cu	20.04 ± 0.04 µg/mL	Iron, Fe	99.7 ± 0.2 µg/mL
Lead, Pb	10.04 ± 0.02 µg/mL	Manganese, Mn	20.01 ± 0.04 µg/mL	Nickel, Ni	20.02 ± 0.06 µg/mL
Selenium, Se	5.001 ± 0.020 µg/mL	Silver, Ag	5.015 ± 0.015 µg/mL	Thallium, Tl	5.013 ± 0.010 µg/mL
Vanadium, V	20.01 ± 0.04 µg/mL	Zinc, Zn	50.00 ± 0.18 µg/mL		

Certified Density: 1.040 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

INORGANIC VENTURES™
195 Lehigh Avenue, Suite 4
Lakewood, New Jersey 08701 · USA
inorganicventures.com
tel: 800.669.6799 · 732.901.1900
fax: 732.901.1903
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13642
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34:2000 registered Certified Reference Material (CRM) Manufacturer (Certificate #883-02). The certificate is designed and the data is determined in accordance with ISO Guide 31:2000 (Reference Materials-Contents of Certificates and Labels), ISO Guide 34:2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35-1989 "Certification of Reference Materials - General and Statistical Principals."

2.0 **DESCRIPTION OF CRM** Stock Solution

Catalog No.: 6020SPK-S

Lot Number: **A2-CICP20089**

Matrix: 5% HNO3(abs)

EXPIRES
1-May-2011

50.00 µg/mL each:
Ba, Cr3, Cu, Zn,
30.00 µg/mL each:
V,
25.00 µg/mL each:
Ni,
20.00 µg/mL each:
Co, Pb, Sb,
10.00 µg/mL each:
Ag, As, Cd,
5.00 µg/mL each:
Be, Se, Tl

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	20.07 ± 0.06 µg/mL	Arsenic, As	10.01 ± 0.03 µg/mL	Barium, Ba	50.10 ± 0.09 µg/mL
Beryllium, Be	5.007 ± 0.020 µg/mL	Cadmium, Cd	10.02 ± 0.02 µg/mL	Chromium+3, Cr3	50.11 ± 0.06 µg/mL
Cobalt, Co	20.03 ± 0.09 µg/mL	Copper, Cu	49.88 ± 0.16 µg/mL	Lead, Pb	20.04 ± 0.06 µg/mL
Nickel, Ni	25.00 ± 0.09 µg/mL	Selenium, Se	5.020 ± 0.010 µg/mL	Silver, Ag	10.00 ± 0.03 µg/mL
Thallium, Tl	5.010 ± 0.015 µg/mL	Vanadium, V	29.92 ± 0.09 µg/mL	Zinc, Zn	49.93 ± 0.13 µg/mL

Certified Density: 1.036 g/mL (measured at 22° C)

The Certified Value is based upon the most precise method used to analyze this CRM. The following equations are used in the calculation of the certified value and the uncertainty:

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

INORGANIC VENTURES™

300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

13639
4/6/10

2.0 **DESCRIPTION OF CRM** Stock Solution

Catalog No.: 2007ICS-1

Lot Number: **A2-MEB236039**

Matrix: tr. HF, 2% HNO3(abs)

EXPIRES
1-May-2011

1,000.00 µg/mL ea:
Ti,

500.00 µg/mL ea:
B,

300.00 µg/mL ea:
Mo,

230.00 µg/mL ea:
Si

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Boron, B	499.9 ± 2.1 µg/mL	Molybdenum, Mo	299.9 ± 0.5 µg/mL	Silicon, Si	230.0 ± 0.5 µg/mL
Titanium, Ti	1,000 ± 2 µg/mL				

Certified Density: 1.019 g/mL (measured at 22° C)

The Certified Value is based upon the most precise method used to analyze this CRM. The following equations are used in the calculation of the certified value and the uncertainty.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13640
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** Custom Solution

Catalog No.: 2007ICS-3

Lot Number: **C2-MEB307125**

Matrix: 7% HNO3(v/v)

EXPIRES
1-May-2011

20,000.00 µg/mL ea:
K,

1,000.00 µg/mL ea:
As, Pb, Tl,

500.00 µg/mL ea:
Se,

300.00 µg/mL ea:
Ag, Ba, Cd, Co, Cr3, Cu, Ni, V, Zn,

200.00 µg/mL ea:
Mn,

100.00 µg/mL ea:
Be

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Arsenic, As	1,000 ± 3 µg/mL	Barium, Ba	300.0 ± 0.5 µg/mL	Beryllium, Be	100.2 ± 0.4 µg/mL
Cadmium, Cd	300.0 ± 0.7 µg/mL	Chromium+3, Cr3	300.0 ± 1.1 µg/mL	Cobalt, Co	300.0 ± 1.2 µg/mL
Copper, Cu	300.8 ± 0.6 µg/mL	Lead, Pb	1,000 ± 2 µg/mL	Manganese, Mn	199.3 ± 0.4 µg/mL
Nickel, Ni	300.2 ± 0.8 µg/mL	Potassium, K	20,000.0 ± 50.0 µg/mL	Selenium, Se	500.0 ± 2.0 µg/mL
Silver, Ag	300.0 ± 0.7 µg/mL	Thallium, Tl	1,000 ± 2 µg/mL	Vanadium, V	300.0 ± 0.9 µg/mL
Zinc, Zn	300.2 ± 1.3 µg/mL				

Certified Density: 1.089 g/mL (measured at 22° C)

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

13641
4/6/10

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001:2000 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM

Stock Solution

Catalog No.: 2007ICS-4

Lot Number: **B2-MEB236099**

Matrix: 3% HNO3(v/v)

EXPIRES
1-May-2011

15,000.00 µg/mL ea:
Ca,

12,500.00 µg/mL ea:
Fe,

7,500.00 µg/mL ea:
Mg,

3,000.00 µg/mL ea:
Al,

2,500.00 µg/mL ea:
Na

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	3,001 ± 8 µg/mL	Calcium, Ca	15,000.0 ± 40.0 µg/mL	Iron, Fe	12,500.0 ± 20.0 µg/mL
Magnesium, Mg	7,500.0 ± 30.0 µg/mL	Sodium, Na	2,502 ± 11 µg/mL		

Certified Density: 1.180 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = \frac{2[(\Sigma s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

PERKIN ELMER OPTIMA 4300DV ICP-OE

Project(s): Rico-Argentine Samples Date: 12 / 2 /2010

Work Order(s): C101105 TDF: D6-220 Analyst: S. Walker

Batch Preparation Information

Digest / Prep: (TR) / Total / Diss.

Matrix: Water / (Soil) / Other

Batch ID: 1011118

Data Storage

Data File: X:/Metals Data Files/2010/D6220_1011118-101202.prn

Standard Information

Calibration Std. # 1 = Reagent Blank Solution

ICV: SS-114-040 *(LIMS ID: 0092802)*

Prepped: 11-22-10 By: SW

CRQL Stock: SS-114-043 *(LIMS ID: 0092901)*
Prepped: 9-27-2010 By: SW

CRQL Daily *(LIMS ID: 0092902)*

Prepped: 12-2-10 By: SV

Calibration Std. # 2 = ESAT High, SS-114-039

Prepped: 9-27-10 By: SW

CCV: 1:2 of SS-114-039 *(LIMS ID: 0092805)*

Prepped: 12-2-10 By: SV

ICSA: SS-114-041 **Prepped: 9-27-2010**

ICSAB: SS-114-042 **Prepped: 9-27-2010**

Spike Information

Dissolved Spikes

Sample ID: —

Sample ID: —

Sample vol: 10 mL

PSS2007-219: 100 uL
QCS-3 Exp: 5-1-2011 (LIMS ID: 0092734)

SS-114-044: 100 uL
Salt Spike Prepped 9-30-2010 *(LIMS ID: 0093002)*

Tot. / Tot. Rec. Spikes

Sample ID: C101105-01

Sample Vol: 50 mL

PSS2007-220: 500 uL
WW-LFS1 Exp: 5-1-2011 *(LIMS ID: 0092735)*

PSS2007-221: 500 uL
WW-LFS2 Exp: 5-1-2011 *(LIMS ID: 0092736)*

Comments / Maintenance

Replace Nebulizer? Y / (N) New pump tubing? Y / (N) Replace torch or injector? Y / (N)

Analytes Reported:

Ag, (Al), As, (Ba), Be, B, (Ca), Cd, Co, Cr, (Cu), (Fe), (K), (Mg),

(Mn), Mo, (Na), Ni, Pb, Sb, Se, SiO2, Sr, Ti, Tl, V, (Zn)

Cu & Mn too high to report off ICP-MS ⇒ reported off ICP-OE.

Sequence ID: 1012004

Lims Entry (Date / Init): 12-2-10 SW

TLF-06.01	SOP: QAQ-04.00	Eff. Date: 1/17/2007

ESAT Region 8

Analytical Data Review Form

Analyst / Bench Review – Level I

LIMS: C10105	Project: Rico-Argentine Samples	
TDF: 06-220	Matrix: Soil	Analysis: Total Recoverable Metals

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☐ Yes ☐ No N/A	Corr. Coef. ≥ 0.995	☒ Yes ☐ No	ICV 90% - 110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRI 70% - 130%	☒ Yes ☐ No	Blk. Spike (BS) / LCS (SRM) In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80% - 120%			☒ Yes ☐ No	Laboratory Duplicate Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	MS / MSD Analyzed
☒ Yes ☐ No	ICSAB Spiked Analytes 80% - 120%			☒ Yes ☐ No	Serial Dilution Analyzed
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90% - 110%	☒ Yes ☐ No	Post-Digest Spike Analyzed for Tot. / Tot. Rec.
☒ Yes ☐ No	QA QC Samples Internal Stds. 60% - 125%			☒ Yes ☐ No	Samples Internal Stds. 60% - 125%

Other obvious data quality issues are identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Analyst:		Date: 12-2-10	

Peer Review of Analytical Analysis – Level II

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☐ Yes ☐ No NA	Corr. Coef. ≥ 0.995	☒ Yes ☐ No	ICV 90% - 110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRI 70% - 130%	☒ Yes ☐ No	Blk. Spike (BS) / LCS (SRM) In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80% - 120%			☒ Yes ☐ No	Laboratory Duplicate Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	MS / MSD Analyzed
☒ Yes ☐ No	ICSAB Spiked Analytes 80% - 120%			☒ Yes ☐ No	Serial Dilution Analyzed
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90% - 110%	☒ Yes ☐ No	Post-Digest Spike Analyzed for Tot. / Tot. Rec.
☒ Yes ☐ No	QA QC Samples Internal Stds. 60% - 125%			☒ Yes ☐ No	Samples Internal Stds. 60% - 125%

Other obvious data quality issues are identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Peer Reviewer:		Date: 12/02/10	

PREPARATION BENCH SHEET

1011118

TechLaw, Inc. - ESAT Region 8

12-2-10

Printed: 12/1/2010 10:19:18AM

Matrix: Solid (dry wt basis)

Date Prepared: 11/30/10 08:26 By: SV

Prepared using: ADMIN - 200.2 - TR Metals

Lab Number	Analysis	EPA Tag ID	Initial (g)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C101105-01 A	CP-MS Tot. Rec. Metals-201	lo Tag Prefix-	0.4911	50						SLSE02	
C101105-02 A	CP-MS Tot. Rec. Metals-201	lo Tag Prefix-	0.501	50						SLSE04	
C101105-03 A	CP-MS Tot. Rec. Metals-201	lo Tag Prefix-	0.4975	50						SLSE05	
C101105-04 A	CP-MS Tot. Rec. Metals-201	lo Tag Prefix-	0.5002	50						SLSE10	
C101105-05 A	CP-MS Tot. Rec. Metals-201	lo Tag Prefix-	0.4856	50						SLSE15	
C101105-06 A	CP-MS Tot. Rec. Metals-201	lo Tag Prefix-	0.4834	50						SLSE15D	
C101105-07 A	CP-MS Tot. Rec. Metals-201	lo Tag Prefix-	0.5079	50						SLSE18-06	
C101105-08 A	CP-MS Tot. Rec. Metals-201	lo Tag Prefix-	0.4922	50						SLSEPP-06	
C101105-09 A	CP-MS Tot. Rec. Metals-201	lo Tag Prefix-	0.5117	50						SLSO01-08	
C101105-10 A	CP-MS Tot. Rec. Metals-201	lo Tag Prefix-	0.5153	50						SLSO02-06	
C101105-11 A	CP-MS Tot. Rec. Metals-201	lo Tag Prefix-	0.5017	50						SLSO13-06	
C101105-01 A	CPOE Tot. Rec Metals-201(	lo Tag Prefix-	0.4911	50						SLSE02	
C101105-02 A	CPOE Tot. Rec Metals-201(	lo Tag Prefix-	0.501	50						SLSE04	
C101105-03 A	CPOE Tot. Rec Metals-201(	lo Tag Prefix-	0.4975	50						SLSE05	
C101105-04 A	CPOE Tot. Rec Metals-201(	lo Tag Prefix-	0.5002	50						SLSE10	
C101105-05 A	CPOE Tot. Rec Metals-201(	lo Tag Prefix-	0.4856	50						SLSE15	
C101105-06 A	CPOE Tot. Rec Metals-201(	lo Tag Prefix-	0.4834	50						SLSE15D	
C101105-07 A	CPOE Tot. Rec Metals-201(	lo Tag Prefix-	0.5079	50						SLSE18-06	
C101105-08 A	CPOE Tot. Rec Metals-201(	lo Tag Prefix-	0.4922	50						SLSEPP-06	
C101105-09 A	CPOE Tot. Rec Metals-201(	lo Tag Prefix-	0.5117	50						SLSO01-08	
C101105-10 A	CPOE Tot. Rec Metals-201(	lo Tag Prefix-	0.5153	50						SLSO02-06	
C101105-11 A	CPOE Tot. Rec Metals-201(	lo Tag Prefix-	0.5017	50						SLSO13-06	
1011118-BLK1	QC		0.5	50		0		0		Blank	

PREPARATION BENCH SHEET

1011118

TechLaw, Inc. - ESAT Region 8

Printed: 12/1/2010 10:19:18AM

Matrix: Solid (dry wt basis)

Date Prepared: 11/30/10 08:26 By: SV **Prepared using: ADMIN - 200.2 - TR Metals**

Lab Number	Analysis	EPA Tag ID	Initial (g)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
1011118-BLK2	QC		0.5	50		0		0		Blank	
1011118-DUP1	QC		0.4968	50		0		0	C101105-01	Duplicate	
1011118-DUP2	QC		0.4968	50		0		0	C101105-01	Duplicate	
1011118-MS1	QC		0.5194	50	0092735	500	0092736	500	C101105-01	Matrix Spike	
1011118-MS2	QC		0.5194	50	0092735	500	0092736	500	C101105-01	Matrix Spike	
1011118-MSD1	QC		0.5002	50	0092735	500	0092736	500	C101105-01	Matrix Spike Dup	
1011118-MSD2	QC		0.5002	50	0092735	500	0092736	500	C101105-01	Matrix Spike Dup	
1011118-PS1	QC		0.4911	50	0100114	500		0	C101105-01	Post Spike	
1011118-PS2	QC		0.4911	50	0100114	500		0	C101105-01	Post Spike	
1011118-SRM1	QC		0.2574	50	5120502	257.4		0		Reference	
1011118-SRM2	QC		0.2574	50	5120502	257.4		0		Reference	

ANALYSIS SEQUENCE

1012004

12-6-10

Instrument: ICPOE - PE Optima Sequence Date: 12/02/10 00:00 Printed: 12/2/2010 1:23:15PM

Lab Number	Dilut. Factor	Analysis	STD ID	Sample/Std Name	EPA Tag ID	Source Sple	Comments
1012004-ICV1		QC	0092802	Initial Cal Check		-	
1012004-ICB1		QC		Initial Cal Blank		-	
1012004-CRL1		QC	0092902	MRL Check		-	
1012004-IFA1		QC	0092803	Interference Check A		-	
1012004-IFB1		QC	0092804	Interference Check B		-	
1012004-CCV1		QC	0092805	Calibration Check		-	
1012004-CCB1		QC		Calibration Blank		-	
1011118-BLK1		QC		Blank		-	
C101105-01 A		CPOE Tot. Rec Metals-201(		SLSE02	No Tag Prefix-A		
1011118-DUP1		QC		Duplicate		C101105-01	
1012004-SRD1		QC		Serial Dilution		C101105-01	
1011118-MS1		QC		Matrix Spike		C101105-01	
1011118-MSD1		QC		Matrix Spike Dup		C101105-01	
1011118-PS1		QC		Post Spike		C101105-01	
C101105-02 A		CPOE Tot. Rec Metals-201(		SLSE04	No Tag Prefix-A		
1012004-CCV2		QC	0092805	Calibration Check		-	
1012004-CCB2		QC		Calibration Blank		-	
C101105-03 A		CPOE Tot. Rec Metals-201(		SLSE05	No Tag Prefix-A		
C101105-04 A		CPOE Tot. Rec Metals-201(		SLSE10	No Tag Prefix-A		
C101105-07 A		CPOE Tot. Rec Metals-201(		SLSE18-06	No Tag Prefix-A		
C101105-09 A		CPOE Tot. Rec Metals-201(		SLSO01-08	No Tag Prefix-A		
C101105-10 A		CPOE Tot. Rec Metals-201(		SLSO02-06	No Tag Prefix-A		
1012004-CCV3		QC	0092805	Calibration Check		-	
1012004-CCB3		QC		Calibration Blank		-	
1011118-SRM1		QC		Reference		-	
C101105-05 A		CPOE Tot. Rec Metals-201(		SLSE15	No Tag Prefix-A		
C101105-08 A		CPOE Tot. Rec Metals-201(		SLSEPP-06	No Tag Prefix-A		
C101105-11 A		CPOE Tot. Rec Metals-201(		SLSO13-06	No Tag Prefix-A		
C101105-06 A		CPOE Tot. Rec Metals-201(		SLSE15D	No Tag Prefix-A		
1012004-CCV4		QC	0092805	Calibration Check		-	
1012004-CCB4		QC		Calibration Blank		-	

Analytical Sequence

Method : ESAT_2009_1.1

Seq.	Loc.		Sample ID	Status
1	1		Cal Blank	Applied
2	9		High Std	Applied
3	10	QC	SEQ-ICV	QC Passed
4	1	QC	SEQ-ICB	QC Passed
5	11	QC	SEQ-CRL	QC Failed
6	12	QC	SEQ-IFA	QC Passed
7	13	QC	SEQ-IFB	QC Failed
8	3	QC	SEQ-CCV	QC Passed
9	1	QC	SEQ-CCB	QC Passed
10	26		1011118-BLK1	Analyzed
11	27		1011118-SRM1	Analyzed DNR Rerun @5X
12	28		C101105-01 @5X	Analyzed
13	29		1011118-DUP1 @5X	Analyzed
14	30		SEQ-SRD1 @25X	Analyzed
15	31		1011118-MS1 @5X	Analyzed
16	32		1011118-MSD1 @5X	Analyzed
17	33		1011118-PS1 @5X	Analyzed
18	34		C101105-02 @5X	Analyzed
19	35		Blank	Analyzed
20	3	QC	SEQ-CCV	QC Passed
21	1	QC	SEQ-CCB	QC Passed
22	36		C101105-03 @5X	Analyzed
23	37		C101105-04 @5X	Analyzed
24	38		C101105-05 @5X	Analyzed DNR
25	39		C101105-06 @5X	Analyzed DNR
26	40		C101105-07 @5X	Analyzed
27	41		C101105-08 @5X	Analyzed DNR
28	42		C101105-09 @5X	Analyzed
29	43		C101105-10 @5X	Analyzed
30	44		C101105-11 @5X	Analyzed DNR
31	45		Blank	Analyzed
32	3	QC	SEQ-CCV	QC Passed
33	1	QC	SEQ-CCB	QC Passed
34	46		1011118-SRM1 @5X	Analyzed
35	47		C101105-05 @25X	Analyzed
36	47		C101105-06 @25X	Analyzed DNR
37	48		C101105-06 @25X	Analyzed
38	49		C101105-08 @25X	Analyzed
39	50		C101105-11 @10X	Analyzed
40	51		C101105-06 @50X	Analyzed
41	3	QC	SEQ-CCV	QC Passed
42	1	QC	SEQ-CCB	QC Passed

12.2.10

Sample Information Detail Report
Document Name: DG220_1011118_OETRSoil_101202

File Description
DG-220 Rico Argentine Soils Nov 2010

Parameters Common to All Samples

Batch ID	1011118
Analyst Name	S.VanOvermeiren
Volume Units	mL
Weight Units	g

Parameters That Vary By Sample

Sample No	A/S Location	Sample ID	Remarks
1	26	1011118-BLK1	
2	27	1011118-SRM1	
3	28	C101105-01 @5X	
4	29	1011118-DUP1 @5X	
5	30	SEQ-SRD1 @25X	
6	31	1011118-MS1 @5X	
7	32	1011118-MSD1 @5X	
8	33	1011118-PS1 @5X	
9	34	C101105-02 @5X	
10	35	Blank	
11	36	C101105-03 @5X	
12	37	C101105-04 @5X	
13	38	C101105-05 @5X	
14	39	C101105-06 @5X	
15	40	C101105-07 @5X	
16	41	C101105-08 @5X	
17	42	C101105-09 @5X	
18	43	C101105-10 @5X	
19	44	C101105-11 @5X	
20	45	Blank	
21	46	1011118-SRM1 @5X	
22	47	C101105-05 @25X	
23	48	C101105-06 @25X	
24	49	C101105-08 @25X	
25	50	C101105-11 @10X	
26	51	C101105-06 @50X	

Sample No	Initial Sample Wt.	Sample Prep. Vol.	Aliquot Volume
1	0.5	50	
2	0.2574	50	
3	0.4911	50	2
4	0.4968	50	2
5	0.4911	50	1
6	0.5194	50	2
7	0.5002	50	2
8	0.4911	50	2
9	0.501	50	2
10			
11	0.4975	50	2
12	0.5002	50	2
13	0.4856	50	2
14	0.4834	50	2
15	0.5079	50	2
16	0.4922	50	2
17	0.5117	50	2
18	0.5153	50	2
19	0.5017	50	2
20			
21			
22			2
23			2
24			
25			1
26			1

Sample Information Detail Report
Document Name: DG220_1011118_OETRSoil_101202

Sample No	Diluted To Vol.	Sample Units *	Matrix Check Sample
1		mg/kg	
2		mg/kg	Recovery 4 of 1
3	10	mg/kg	
4	10	mg/kg	Duplicate of 3
5	25	mg/kg	5X Dilution of 3
6	10	mg/kg	Recovery 1 of 3
7	10	mg/kg	Recovery 1 of 3
8	10	mg/kg	Recovery 3 of 3
9	10	mg/kg	
10		ug/L	
11	10	mg/kg	
12	10	mg/kg	
13	10	mg/kg	
14	10	mg/kg	
15	10	mg/kg	
16	10	mg/kg	
17	10	mg/kg	
18	10	mg/kg	
19	10	mg/kg	
20		ug/L	
21		ug/L	
22	10	mg/kg	
23	10	mg/kg	
24		mg/kg	
25	10	mg/kg	
26	50	mg/kg	

==========

Analysis Begun

Start Time: 12/2/2010 8:56:55 AM **Plasma On Time: 12/2/2010 7:59:10 AM**
Logged In Analyst: esat **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N3082602Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\2010\Rico\DG220_1011118_OETRSoil_101202.s
Batch ID: 1011118
Results Data Set: DG220_1011118_101202
Results Library: C:\pe\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Cal Blank **Date Collected: 12/2/2010 8:56:55 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: Cal Blank

Analyte	Back Pressure	Flow
All	113.0 kPa	0.80 L/min

D 12-2-10

Mean Data: Cal Blank

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc Axial	2464295.2	9614.00	0.39%	100.0	%
Sc Radial	293642.1	5122.35	1.74%	100.0	%
Ag 328.068†	-240.9	19.90	8.26%	[0.00]	ug/L
Al 396.153†	15.0	10.36	69.24%	[0.00]	ug/L
As 193.696†	-10.2	0.66	6.51%	[0.00]	ug/L
Ba 233.527†	-15.8	0.81	5.13%	[0.00]	ug/L
Be 313.107†	-115.7	4.80	4.15%	[0.00]	ug/L
B 249.677†	-328.4	0.75	0.23%	[0.00]	ug/L
Ca 317.933†	12.4	1.93	15.54%	[0.00]	ug/L
Cd 214.440†	-9.2	1.91	20.69%	[0.00]	ug/L
Co 228.616†	-39.7	0.25	0.63%	[0.00]	ug/L
Cr 267.716†	6.0	3.74	62.09%	[0.00]	ug/L
Cu 324.752†	822.7	9.98	1.21%	[0.00]	ug/L
Fe 238.204†	12.1	1.17	9.65%	[0.00]	ug/L
K 766.490†	401.2	27.51	6.86%	[0.00]	ug/L
Mg 285.213†	17.5	0.72	4.14%	[0.00]	ug/L
Mn 257.610†	19.1	5.37	28.09%	[0.00]	ug/L
Mo 202.031†	-5.4	0.31	5.81%	[0.00]	ug/L
Na 589.592†	191.9	11.73	6.11%	[0.00]	ug/L
Ni 231.604†	35.2	2.52	7.16%	[0.00]	ug/L
Pb 220.353†	-6.4	2.76	43.01%	[0.00]	ug/L
Sb 206.836†	12.2	1.10	9.02%	[0.00]	ug/L
Se 196.026†	2.3	0.81	35.30%	[0.00]	ug/L
SiO2 251.603†	144.8	6.03	4.16%	[0.00]	ug/L
Sr 421.552†	-26.1	36.11	138.37%	[0.00]	ug/L
Ti 334.940†	32.1	0.81	2.53%	[0.00]	ug/L
Tl 190.801†	-3.6	3.19	88.67%	[0.00]	ug/L
V 290.880†	2099.8	12.77	0.61%	[0.00]	ug/L
Zn 206.200†	-0.3	1.82	680.55%	[0.00]	ug/L

Sequence No.: 2
Sample ID: High Std
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/2/2010 8:59:58 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: High Std

Analyte	Back Pressure	Flow
All	114.0 kPa	0.80 L/min

Mean Data: High Std

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc Axial	2434059.3	18481.11	0.76%	98.77	%
Sc Radial	300955.6	1884.01	0.63%	102.5	%
Ag 328.068†	31471.2	308.56	0.98%	[500]	ug/L
Al 396.153†	116128.5	488.25	0.42%	[25000]	ug/L
As 193.696†	515.1	5.31	1.03%	[5000]	ug/L
Ba 233.527†	12254.0	148.73	1.21%	[1000]	ug/L
Be 313.107†	289035.6	708.03	0.24%	[1000]	ug/L
B 249.677†	67324.9	817.02	1.21%	[10000]	ug/L
Ca 317.933†	73205.7	633.66	0.87%	[25000]	ug/L
Cd 214.440†	3370.9	25.53	0.76%	[1000]	ug/L
Co 228.616†	4419.3	41.75	0.94%	[1000]	ug/L
Cr 267.716†	30352.6	346.94	1.14%	[5000]	ug/L
Cu 324.752†	199888.7	1375.72	0.69%	[2000]	ug/L
Fe 238.204†	3500.8	23.14	0.66%	[25000]	ug/L
K 766.490†	86042.2	251.76	0.29%	[50000]	ug/L
Mg 285.213†	160470.5	774.54	0.48%	[25000]	ug/L
Mn 257.610†	279295.3	3307.14	1.18%	[2000]	ug/L
Mo 202.031†	535.6	3.96	0.74%	[1000]	ug/L
Na 589.592†	135666.1	230.83	0.17%	[25000]	ug/L
Ni 231.604†	8786.3	52.27	0.59%	[5000]	ug/L
Pb 220.353†	2319.9	13.53	0.58%	[5000]	ug/L
Sb 206.836†	1343.4	17.25	1.28%	[5000]	ug/L
Se 196.026†	439.1	7.73	1.76%	[5000]	ug/L
SiO2 251.603†	67830.2	727.02	1.07%	[20000]	ug/L
Sr 421.552†	1621440.6	3114.25	0.19%	[1000]	ug/L
Ti 334.940†	212527.5	2453.45	1.15%	[1000]	ug/L
Tl 190.801†	1290.1	6.13	0.48%	[5000]	ug/L
V 290.880†	56281.6	724.14	1.29%	[2000]	ug/L
Zn 206.200†	5624.8	65.41	1.16%	[5000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	62.94	0.00000	1.000000	
Al 396.153	1	Lin, Calc Int	0.0	4.645	0.00000	1.000000	
As 193.696	1	Lin Thru 0	0.0	0.1030	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	12.25	0.00000	1.000000	
Be 313.107	1	Lin Thru 0	0.0	289.0	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	6.732	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	2.928	0.00000	1.000000	
Cd 214.440	1	Lin Thru 0	0.0	3.371	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	4.419	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	6.071	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	99.94	0.00000	1.000000	
Fe 238.204	1	Lin, Calc Int	0.0	0.1400	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1.721	0.00000	1.000000	
Mg 285.213	1	Lin, Calc Int	0.0	6.419	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	139.6	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	0.5356	0.00000	1.000000	
Na 589.592	1	Lin, Calc Int	0.0	5.427	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	1.757	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	0.4640	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	0.2687	0.00000	1.000000	

Se 196.026	1	Lin Thru 0	0.0	0.0878	0.00000	1.000000
SiO2 251.603	1	Lin, Calc Int	0.0	3.392	0.00000	1.000000
Sr 421.552	1	Lin, Calc Int	0.0	1621	0.00000	1.000000
Ti 334.940	1	Lin Thru 0	0.0	212.5	0.00000	1.000000
Tl 190.801	1	Lin Thru 0	0.0	0.2580	0.00000	1.000000
V 290.880	1	Lin Thru 0	0.0	28.14	0.00000	1.000000
Zn 206.200	1	Lin Thru 0	0.0	1.125	0.00000	1.000000

Sequence No.: 3
Sample ID: SEQ-ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/2/2010 9:03:05 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-ICV

Analyte	Back Pressure	Flow
All	114.0 kPa	0.80 L/min

Mean Data: SEQ-ICV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2514822.3	102.1	%	0.67				0.65%
Sc Radial	308949.8	105.2	%	0.55				0.53%
Ag 328.068†	16009.6	257.9	ug/L	2.71	257.9	ug/L	2.71	1.05%
QC value within limits for Ag 328.068 Recovery = 103.16%								
Al 396.153†	4786.2	1008	ug/L	9.9	1008	ug/L	9.9	0.99%
QC value within limits for Al 396.153 Recovery = 100.82%								
As 193.696†	203.8	1998	ug/L	6.2	1998	ug/L	6.2	0.31%
QC value within limits for As 193.696 Recovery = 99.89%								
Ba 233.527†	12433.1	1013	ug/L	12.7	1013	ug/L	12.7	1.26%
QC value within limits for Ba 233.527 Recovery = 101.27%								
Be 313.107†	287461.4	994.4	ug/L	4.50	994.4	ug/L	4.50	0.45%
QC value within limits for Be 313.107 Recovery = 99.44%								
B 249.677†	7163.0	1064	ug/L	17.1	1064	ug/L	17.1	1.60%
QC value within limits for B 249.677 Recovery = 106.40%								
Ca 317.933†	2892.1	934.2	ug/L	5.07	934.2	ug/L	5.07	0.54%
QC value within limits for Ca 317.933 Recovery = 93.42%								
Cd 214.440†	3428.8	1017	ug/L	5.5	1017	ug/L	5.5	0.54%
QC value within limits for Cd 214.440 Recovery = 101.71%								
Co 228.616†	4484.3	1016	ug/L	8.0	1016	ug/L	8.0	0.79%
QC value within limits for Co 228.616 Recovery = 101.56%								
Cr 267.716†	6058.6	999.1	ug/L	11.47	999.1	ug/L	11.47	1.15%
QC value within limits for Cr 267.716 Recovery = 99.91%								
Cu 324.752†	99255.8	994.8	ug/L	10.70	994.8	ug/L	10.70	1.08%
QC value within limits for Cu 324.752 Recovery = 99.48%								
Fe 238.204†	134.6	947.4	ug/L	20.67	947.4	ug/L	20.67	2.18%
QC value within limits for Fe 238.204 Recovery = 94.74%								
K 766.490†	8704.3	4815	ug/L	34.4	4815	ug/L	34.4	0.71%
QC value within limits for K 766.490 Recovery = 96.30%								
Mg 285.213†	6465.0	997.8	ug/L	3.87	997.8	ug/L	3.87	0.39%
QC value within limits for Mg 285.213 Recovery = 99.78%								
Mn 257.610†	143268.9	1025	ug/L	11.4	1025	ug/L	11.4	1.11%
QC value within limits for Mn 257.610 Recovery = 102.51%								
Mo 202.031†	541.3	1011	ug/L	5.8	1011	ug/L	5.8	0.57%
QC value within limits for Mo 202.031 Recovery = 101.06%								
Na 589.592†	5620.9	953.2	ug/L	2.81	953.2	ug/L	2.81	0.30%
QC value within limits for Na 589.592 Recovery = 95.32%								
Ni 231.604†	1801.0	1027	ug/L	7.5	1027	ug/L	7.5	0.73%
QC value within limits for Ni 231.604 Recovery = 102.68%								
Pb 220.353†	949.6	2039	ug/L	15.2	2039	ug/L	15.2	0.75%
QC value within limits for Pb 220.353 Recovery = 101.97%								
Sb 206.836†	544.4	2020	ug/L	29.6	2020	ug/L	29.6	1.47%
QC value within limits for Sb 206.836 Recovery = 101.02%								
Se 196.026†	86.0	980.8	ug/L	30.09	980.8	ug/L	30.09	3.07%
QC value within limits for Se 196.026 Recovery = 98.08%								
SiO2 251.603†	16939.0	4939	ug/L	47.5	4939	ug/L	47.5	0.96%
QC value within limits for SiO2 251.603 Recovery = 98.77%								
Sr 421.552†	1654892.2	1021	ug/L	2.9	1021	ug/L	2.9	0.28%
QC value within limits for Sr 421.552 Recovery = 102.06%								
Ti 334.940†	214305.1	1008	ug/L	9.9	1008	ug/L	9.9	0.98%
QC value within limits for Ti 334.940 Recovery = 100.84%								
Tl 190.801†	1299.7	5043	ug/L	46.8	5043	ug/L	46.8	0.93%
QC value within limits for Tl 190.801 Recovery = 100.86%								
V 290.880†	27944.3	994.6	ug/L	12.23	994.6	ug/L	12.23	1.23%
QC value within limits for V 290.880 Recovery = 99.46%								

Zn 206.200†	1131.4	998.0 ug/L	8.16	998.0 ug/L	8.16	0.82%

QC value within limits for Zn 206.200 Recovery = 99.80%

All analyte(s) passed QC.

Sequence No.: 4
Sample ID: SEQ-ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/2/2010 9:06:13 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-ICB

Analyte	Back Pressure	Flow
All	119.0 kPa	0.80 L/min

Mean Data: SEQ-ICB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2544794.5	103.3	%	0.51				0.49%
Sc Radial	311150.6	106.0	%	0.78				0.74%
Ag 328.068†	13.9	0.2164	ug/L	0.08400	0.2164	ug/L	0.08400	38.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	14.2	2.489	ug/L	1.5376	2.489	ug/L	1.5376	61.77%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	1.4	13.48	ug/L	16.765	13.48	ug/L	16.765	124.34%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	-0.4	-0.0273	ug/L	0.08709	-0.0273	ug/L	0.08709	319.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	11.4	0.0390	ug/L	0.04338	0.0390	ug/L	0.04338	111.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	274.3	40.74	ug/L	2.284	40.74	ug/L	2.284	5.61%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	-3.3	-1.124	ug/L	2.5013	-1.124	ug/L	2.5013	222.45%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	-1.0	-0.2921	ug/L	0.57451	-0.2921	ug/L	0.57451	196.66%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-0.8	-0.1768	ug/L	0.55449	-0.1768	ug/L	0.55449	313.71%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-1.1	-0.1884	ug/L	0.28857	-0.1884	ug/L	0.28857	153.20%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	9.8	0.0901	ug/L	0.20272	0.0901	ug/L	0.20272	224.91%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	0.0	0.2061	ug/L	18.37085	0.2061	ug/L	18.37085	>999.9%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	-29.5	-17.46	ug/L	18.738	-17.46	ug/L	18.738	107.33%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1.1	0.1848	ug/L	0.69008	0.1848	ug/L	0.69008	373.41%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	16.9	0.1196	ug/L	0.05771	0.1196	ug/L	0.05771	48.24%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	5.3	9.939	ug/L	2.6772	9.939	ug/L	2.6772	26.94%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-44.3	-8.137	ug/L	5.3951	-8.137	ug/L	5.3951	66.31%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-3.2	-1.826	ug/L	0.4443	-1.826	ug/L	0.4443	24.33%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	1.6	3.554	ug/L	6.4808	3.554	ug/L	6.4808	182.37%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	0.7	2.726	ug/L	8.7884	2.726	ug/L	8.7884	322.43%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-2.9	-33.12	ug/L	48.711	-33.12	ug/L	48.711	147.06%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	13.0	3.493	ug/L	6.1787	3.493	ug/L	6.1787	176.91%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	55.8	0.034	ug/L	0.0126	0.034	ug/L	0.0126	36.60%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	127.7	0.601	ug/L	0.0608	0.601	ug/L	0.0608	10.13%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	0.3	1.011	ug/L	16.5596	1.011	ug/L	16.5596	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	-47.7	-1.622	ug/L	0.5222	-1.622	ug/L	0.5222	32.20%
QC value within limits for V 290.880 Recovery = Not calculated								

Zn 206.200†	1.2	1.053 ug/L	0.3390	1.053 ug/L	0.3390	32.18%

QC value within limits for Zn 206.200 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 5
Sample ID: SEQ-CRL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/2/2010 9:09:16 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CRL

Analyte	Back Pressure	Flow
All	114.0 kPa	0.80 L/min

D 12-2-10

Mean Data: SEQ-CRL

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2551317.6	103.5	%	0.27				0.26%
Sc Radial	311526.4	106.1	%	0.31				0.29%
Ag 328.068†	660.8	10.59	ug/L	0.145	10.59	ug/L	0.145	1.37%
QC value within limits for Ag 328.068 Recovery = 105.92%								
Al 396.153†	497.2	106.8	ug/L	2.39	106.8	ug/L	2.39	2.24%
QC value within limits for Al 396.153 Recovery = 106.80%								
As 193.696†	8.1	79.76	ug/L	39.360	79.76	ug/L	39.360	49.35%
QC value greater than the upper limit for As 193.696 Recovery = 159.51%								
Ba 233.527†	124.4	10.10	ug/L	0.096	10.10	ug/L	0.096	0.95%
QC value within limits for Ba 233.527 Recovery = 101.01%								
Be 313.107†	1471.4	5.085	ug/L	0.0430	5.085	ug/L	0.0430	0.85%
QC value within limits for Be 313.107 Recovery = 101.70%								
B 249.677†	1783.6	264.9	ug/L	0.67	264.9	ug/L	0.67	0.25%
QC value within limits for B 249.677 Recovery = 105.97%								
Ca 317.933†	727.9	246.9	ug/L	3.93	246.9	ug/L	3.93	1.59%
QC value within limits for Ca 317.933 Recovery = 98.76%								
Cd 214.440†	35.5	10.55	ug/L	0.706	10.55	ug/L	0.706	6.70%
QC value within limits for Cd 214.440 Recovery = 105.50%								
Co 228.616†	42.6	9.665	ug/L	0.6835	9.665	ug/L	0.6835	7.07%
QC value within limits for Co 228.616 Recovery = 96.65%								
Cr 267.716†	55.3	9.161	ug/L	0.0487	9.161	ug/L	0.0487	0.53%
QC value within limits for Cr 267.716 Recovery = 91.61%								
Cu 324.752†	968.4	9.722	ug/L	0.3708	9.722	ug/L	0.3708	3.81%
QC value within limits for Cu 324.752 Recovery = 97.22%								
Fe 238.204†	13.6	96.00	ug/L	12.486	96.00	ug/L	12.486	13.01%
QC value within limits for Fe 238.204 Recovery = 96.00%								
K 766.490†	1762.2	1021	ug/L	10.8	1021	ug/L	10.8	1.06%
QC value within limits for K 766.490 Recovery = 102.06%								
Mg 285.213†	6606.4	1029	ug/L	5.3	1029	ug/L	5.3	0.51%
QC value within limits for Mg 285.213 Recovery = 102.89%								
Mn 257.610†	1433.0	10.22	ug/L	0.049	10.22	ug/L	0.049	0.48%
QC value within limits for Mn 257.610 Recovery = 102.20%								
Mo 202.031†	7.4	13.77	ug/L	2.429	13.77	ug/L	2.429	17.64%
QC value greater than the upper limit for Mo 202.031 Recovery = 137.71%								
Na 589.592†	5637.0	1036	ug/L	6.3	1036	ug/L	6.3	0.61%
QC value within limits for Na 589.592 Recovery = 103.64%								
Ni 231.604†	13.6	7.801	ug/L	0.4009	7.801	ug/L	0.4009	5.14%
QC value within limits for Ni 231.604 Recovery = 78.01%								
Pb 220.353†	16.3	34.89	ug/L	3.971	34.89	ug/L	3.971	11.38%
QC value within limits for Pb 220.353 Recovery = 116.30%								
Sb 206.836†	13.3	49.41	ug/L	12.558	49.41	ug/L	12.558	25.42%
QC value within limits for Sb 206.836 Recovery = 98.82%								
Se 196.026†	7.6	86.15	ug/L	23.077	86.15	ug/L	23.077	26.79%
QC value within limits for Se 196.026 Recovery = 86.15%								
SiO2 251.603†	832.2	244.5	ug/L	2.72	244.5	ug/L	2.72	1.11%
QC value within limits for SiO2 251.603 Recovery = 97.79%								
Sr 421.552†	16867.5	10.40	ug/L	0.038	10.40	ug/L	0.038	0.36%
QC value within limits for Sr 421.552 Recovery = 104.03%								
Ti 334.940†	10823.0	50.93	ug/L	0.193	50.93	ug/L	0.193	0.38%
QC value within limits for Ti 334.940 Recovery = 101.85%								
Tl 190.801†	13.1	51.48	ug/L	8.030	51.48	ug/L	8.030	15.60%
QC value within limits for Tl 190.801 Recovery = 102.96%								
V 290.880†	1381.7	49.04	ug/L	0.112	49.04	ug/L	0.112	0.23%
QC value within limits for V 290.880 Recovery = 98.08%								

Element not Reported

Element not Reported

Zn 206.200†	57.7	51.05 ug/L	1.757	51.05 ug/L	1.757	3.44%

QC value within limits for Zn 206.200 Recovery = 102.09%

QC Failed. Continue with analysis.

Sequence No.: 6
Sample ID: SEQ-IFA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 12
Date Collected: 12/2/2010 9:12:21 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-IFA

Analyte	Back Pressure	Flow
All	114.0 kPa	0.80 L/min

Mean Data: SEQ-IFA

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2354146.4	95.53	%	0.803				0.84%
Sc Radial	298579.1	101.7	%	0.35				0.34%
Ag 328.068†	-528.3	7.236	ug/L	0.1988	7.236	ug/L	0.1988	2.75%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	292227.6	62840	ug/L	386.5	62840	ug/L	386.5	0.62%
QC value within limits for Al 396.153 Recovery = 104.73%								
As 193.696†	-12.2	-6.243	ug/L	32.7984	-6.243	ug/L	32.7984	525.40%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	23.3	-3.465	ug/L	0.0912	-3.465	ug/L	0.0912	2.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-13.6	-0.8031	ug/L	0.05541	-0.8031	ug/L	0.05541	6.90%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	-715.6	-106.3	ug/L	4.57	-106.3	ug/L	4.57	4.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	874881.0	298700	ug/L	1846.2	298700	ug/L	1846.2	0.62%
QC value within limits for Ca 317.933 Recovery = 99.58%								
Cd 214.440†	-3.2	-0.4700	ug/L	0.79257	-0.4700	ug/L	0.79257	168.61%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	24.1	2.059	ug/L	0.5889	2.059	ug/L	0.5889	28.60%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-21.5	2.846	ug/L	0.0883	2.846	ug/L	0.0883	3.10%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	18.8	0.3768	ug/L	0.37105	0.3768	ug/L	0.37105	98.47%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	33930.2	242300	ug/L	483.2	242300	ug/L	483.2	0.20%
QC value within limits for Fe 238.204 Recovery = 96.91%								
K 766.490†	-2.1	-106.0	ug/L	13.55	-106.0	ug/L	13.55	12.79%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	943935.8	147100	ug/L	574.8	147100	ug/L	574.8	0.39%
QC value within limits for Mg 285.213 Recovery = 98.06%								
Mn 257.610†	559.7	1.448	ug/L	0.1770	1.448	ug/L	0.1770	12.23%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	2.9	6.050	ug/L	5.1556	6.050	ug/L	5.1556	85.21%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	284672.7	52330	ug/L	479.1	52330	ug/L	479.1	0.92%
QC value within limits for Na 589.592 Recovery = 104.66%								
Ni 231.604†	35.7	4.889	ug/L	3.0095	4.889	ug/L	3.0095	61.56%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	-21.0	-9.263	ug/L	10.2669	-9.263	ug/L	10.2669	110.84%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	16.7	54.00	ug/L	18.748	54.00	ug/L	18.748	34.72%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-3.7	-3.919	ug/L	21.7750	-3.919	ug/L	21.7750	555.60%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	-71.9	61.06	ug/L	1.984	61.06	ug/L	1.984	3.25%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	4626.7	2.853	ug/L	0.0407	2.853	ug/L	0.0407	1.43%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	57.0	0.268	ug/L	0.0053	0.268	ug/L	0.0053	1.98%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	1.9	-4.492	ug/L	13.6127	-4.492	ug/L	13.6127	303.05%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	804.9	-2.681	ug/L	1.9165	-2.681	ug/L	1.9165	71.48%
QC value within limits for V 290.880 Recovery = Not calculated								

Zn 206.200†	4.8	3.321 ug/L	2.2933	3.321 ug/L	2.2933	69.06%

QC value within limits for Zn 206.200 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: SEQ-IFB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/2/2010 9:16:04 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-IFB

Analyte	Back Pressure	Flow
All	114.0 kPa	0.80 L/min

12-2-10

Mean Data: SEQ-IFB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2357141.7	95.65	%	0.969				1.01%
Sc Radial	299939.0	102.1	%	0.97				0.95%
Ag 328.068†	19088.9	321.1	ug/L	2.72	321.1	ug/L	2.72	0.85%
QC value within limits for Ag 328.068 Recovery = 107.04%								
Al 396.153†	293409.0	63100	ug/L	820.1	63100	ug/L	820.1	1.30%
QC value within limits for Al 396.153 Recovery = 105.17%								
As 193.696†	94.4	1032	ug/L	18.9	1032	ug/L	18.9	1.83%
QC value within limits for As 193.696 Recovery = 103.17%								
Ba 233.527†	3658.1	291.7	ug/L	3.75	291.7	ug/L	3.75	1.29%
QC value within limits for Ba 233.527 Recovery = 97.25%								
Be 313.107†	28208.2	96.74	ug/L	0.860	96.74	ug/L	0.860	0.89%
QC value within limits for Be 313.107 Recovery = 96.74%								
B 249.677†	2667.9	396.3	ug/L	4.99	396.3	ug/L	4.99	1.26%
QC value less than the lower limit for B 249.677 Recovery = 79.25%								
Ca 317.933†	874874.6	298700	ug/L	3643.8	298700	ug/L	3643.8	1.22%
QC value within limits for Ca 317.933 Recovery = 99.57%								
Cd 214.440†	971.3	288.6	ug/L	2.24	288.6	ug/L	2.24	0.78%
QC value within limits for Cd 214.440 Recovery = 96.20%								
Co 228.616†	1303.3	291.9	ug/L	3.39	291.9	ug/L	3.39	1.16%
QC value within limits for Co 228.616 Recovery = 97.31%								
Cr 267.716†	1747.1	295.1	ug/L	4.33	295.1	ug/L	4.33	1.47%
QC value within limits for Cr 267.716 Recovery = 98.38%								
Cu 324.752†	30939.1	310.5	ug/L	2.90	310.5	ug/L	2.90	0.94%
QC value within limits for Cu 324.752 Recovery = 103.50%								
Fe 238.204†	33850.5	241700	ug/L	931.9	241700	ug/L	931.9	0.39%
QC value within limits for Fe 238.204 Recovery = 96.67%								
K 766.490†	35910.4	20620	ug/L	124.8	20620	ug/L	124.8	0.61%
QC value within limits for K 766.490 Recovery = 103.11%								
Mg 285.213†	949074.1	147900	ug/L	1814.0	147900	ug/L	1814.0	1.23%
QC value within limits for Mg 285.213 Recovery = 98.59%								
Mn 257.610†	27965.1	197.3	ug/L	1.64	197.3	ug/L	1.64	0.83%
QC value within limits for Mn 257.610 Recovery = 98.64%								
Mo 202.031†	154.1	288.9	ug/L	12.65	288.9	ug/L	12.65	4.38%
QC value within limits for Mo 202.031 Recovery = 96.30%								
Na 589.592†	284914.7	52330	ug/L	747.5	52330	ug/L	747.5	1.43%
QC value within limits for Na 589.592 Recovery = 104.65%								
Ni 231.604†	524.5	284.3	ug/L	3.10	284.3	ug/L	3.10	1.09%
QC value within limits for Ni 231.604 Recovery = 94.76%								
Pb 220.353†	440.1	979.0	ug/L	21.74	979.0	ug/L	21.74	2.22%
QC value within limits for Pb 220.353 Recovery = 97.90%								
Sb 206.836†	255.3	937.6	ug/L	70.86	937.6	ug/L	70.86	7.56%
QC value within limits for Sb 206.836 Recovery = 93.76%								
Se 196.026†	42.2	523.4	ug/L	102.11	523.4	ug/L	102.11	19.51%
QC value within limits for Se 196.026 Recovery = 104.69%								
SiO2 251.603†	1691.2	521.2	ug/L	7.46	521.2	ug/L	7.46	1.43%
QC value within limits for SiO2 251.603 Recovery = 104.23%								
Sr 421.552†	1664476.9	1027	ug/L	1.9	1027	ug/L	1.9	0.19%
QC value within limits for Sr 421.552 Recovery = 102.65%								
Ti 334.940†	220002.3	1035	ug/L	9.6	1035	ug/L	9.6	0.93%
QC value within limits for Ti 334.940 Recovery = 103.52%								
Tl 190.801†	255.4	976.7	ug/L	22.59	976.7	ug/L	22.59	2.31%
QC value within limits for Tl 190.801 Recovery = 97.67%								
V 290.880†	9336.7	298.9	ug/L	3.89	298.9	ug/L	3.89	1.30%
QC value within limits for V 290.880 Recovery = 99.63%								

Element Not Reported

Zn 206.200†	316.9	275.8 ug/L	2.45	275.8 ug/L	2.45	0.89%

QC value within limits for Zn 206.200 Recovery = 91.95%

QC Failed. Continue with analysis.

Sequence No.: 8
Sample ID: SEQ-CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/2/2010 9:19:49 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCV

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: SEQ-CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2475564.0	100.5	%	2.39				2.38%
Sc Radial	315646.1	107.5	%	0.31				0.29%
Ag 328.068†	16470.5	265.7	ug/L	7.61	265.7	ug/L	7.61	2.86%
QC value within limits for Ag 328.068 Recovery = 106.30%								
Al 396.153†	58292.3	12550	ug/L	63.0	12550	ug/L	63.0	0.50%
QC value within limits for Al 396.153 Recovery = 100.36%								
As 193.696†	264.1	2595	ug/L	48.3	2595	ug/L	48.3	1.86%
QC value within limits for As 193.696 Recovery = 103.81%								
Ba 233.527†	6385.1	518.1	ug/L	14.04	518.1	ug/L	14.04	2.71%
QC value within limits for Ba 233.527 Recovery = 103.63%								
Be 313.107†	151785.5	524.9	ug/L	14.70	524.9	ug/L	14.70	2.80%
QC value within limits for Be 313.107 Recovery = 104.98%								
B 249.677†	35086.1	5211	ug/L	123.5	5211	ug/L	123.5	2.37%
QC value within limits for B 249.677 Recovery = 104.23%								
Ca 317.933†	36851.0	12520	ug/L	96.4	12520	ug/L	96.4	0.77%
QC value within limits for Ca 317.933 Recovery = 100.17%								
Cd 214.440†	1744.2	517.4	ug/L	13.12	517.4	ug/L	13.12	2.53%
QC value within limits for Cd 214.440 Recovery = 103.49%								
Co 228.616†	2297.7	520.5	ug/L	13.67	520.5	ug/L	13.67	2.63%
QC value within limits for Co 228.616 Recovery = 104.10%								
Cr 267.716†	15751.8	2596	ug/L	63.9	2596	ug/L	63.9	2.46%
QC value within limits for Cr 267.716 Recovery = 103.84%								
Cu 324.752†	104577.6	1048	ug/L	27.3	1048	ug/L	27.3	2.61%
QC value within limits for Cu 324.752 Recovery = 104.80%								
Fe 238.204†	1778.3	12670	ug/L	150.1	12670	ug/L	150.1	1.18%
QC value within limits for Fe 238.204 Recovery = 101.36%								
K 766.490†	43066.2	24870	ug/L	115.8	24870	ug/L	115.8	0.47%
QC value within limits for K 766.490 Recovery = 99.46%								
Mg 285.213†	81052.3	12620	ug/L	52.3	12620	ug/L	52.3	0.41%
QC value within limits for Mg 285.213 Recovery = 100.93%								
Mn 257.610†	147043.1	1052	ug/L	25.8	1052	ug/L	25.8	2.45%
QC value within limits for Mn 257.610 Recovery = 105.19%								
Mo 202.031†	273.6	509.8	ug/L	13.12	509.8	ug/L	13.12	2.57%
QC value within limits for Mo 202.031 Recovery = 101.96%								
Na 589.592†	68381.1	12490	ug/L	57.8	12490	ug/L	57.8	0.46%
QC value within limits for Na 589.592 Recovery = 99.88%								
Ni 231.604†	4571.9	2603	ug/L	67.0	2603	ug/L	67.0	2.57%
QC value within limits for Ni 231.604 Recovery = 104.12%								
Pb 220.353†	1215.8	2613	ug/L	67.2	2613	ug/L	67.2	2.57%
QC value within limits for Pb 220.353 Recovery = 104.52%								
Sb 206.836†	688.4	2528	ug/L	73.3	2528	ug/L	73.3	2.90%
QC value within limits for Sb 206.836 Recovery = 101.14%								
Se 196.026†	229.9	2622	ug/L	65.3	2622	ug/L	65.3	2.49%
QC value within limits for Se 196.026 Recovery = 104.89%								
SiO2 251.603†	35294.9	10390	ug/L	260.3	10390	ug/L	260.3	2.51%
QC value within limits for SiO2 251.603 Recovery = 103.90%								
Sr 421.552†	863293.4	532.4	ug/L	14.28	532.4	ug/L	14.28	2.68%
QC value within limits for Sr 421.552 Recovery = 106.48%								
Ti 334.940†	111021.3	522.4	ug/L	13.78	522.4	ug/L	13.78	2.64%
QC value within limits for Ti 334.940 Recovery = 104.48%								
Tl 190.801†	668.6	2595	ug/L	78.6	2595	ug/L	78.6	3.03%
QC value within limits for Tl 190.801 Recovery = 103.80%								
V 290.880†	29199.5	1036	ug/L	27.5	1036	ug/L	27.5	2.66%
QC value within limits for V 290.880 Recovery = 103.62%								

Zn 206.200†	2913.0	2583 ug/L	69.0	2583 ug/L	69.0	2.67%

QC value within limits for Zn 206.200 Recovery = 103.34%

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: SEQ-CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/2/2010 9:22:56 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCB

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: SEQ-CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2553817.6	103.6	%	0.33				0.32%
Sc Radial	312503.5	106.4	%	0.27				0.25%
Ag 328.068†	22.9	0.3631	ug/L	0.18741	0.3631	ug/L	0.18741	51.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	17.0	3.221	ug/L	1.6572	3.221	ug/L	1.6572	51.45%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	2.5	24.51	ug/L	7.473	24.51	ug/L	7.473	30.49%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	-0.9	-0.0952	ug/L	0.14314	-0.0952	ug/L	0.14314	150.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	17.1	0.0579	ug/L	0.04581	0.0579	ug/L	0.04581	79.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	313.9	46.62	ug/L	3.708	46.62	ug/L	3.708	7.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	-4.2	-1.616	ug/L	1.4046	-1.616	ug/L	1.4046	86.94%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	-0.0	-0.0128	ug/L	0.75636	-0.0128	ug/L	0.75636	>999.9%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-0.1	-0.0305	ug/L	0.59971	-0.0305	ug/L	0.59971	>999.9%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	0.8	0.1385	ug/L	0.09200	0.1385	ug/L	0.09200	66.41%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	21.5	0.2140	ug/L	0.09987	0.2140	ug/L	0.09987	46.67%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	4.1	29.26	ug/L	13.916	29.26	ug/L	13.916	47.56%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	-2.1	-1.994	ug/L	15.7965	-1.994	ug/L	15.7965	792.15%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	7.8	1.183	ug/L	0.4575	1.183	ug/L	0.4575	38.68%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	2.5	0.0130	ug/L	0.07684	0.0130	ug/L	0.07684	592.98%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	4.8	8.973	ug/L	1.1635	8.973	ug/L	1.1635	12.97%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-36.2	-6.997	ug/L	2.0222	-6.997	ug/L	2.0222	28.90%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-1.3	-0.7441	ug/L	0.69112	-0.7441	ug/L	0.69112	92.88%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	2.1	4.519	ug/L	5.3823	4.519	ug/L	5.3823	119.10%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	10.8	40.34	ug/L	5.029	40.34	ug/L	5.029	12.47%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-0.4	-4.492	ug/L	14.5061	-4.492	ug/L	14.5061	322.90%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	1.4	0.3048	ug/L	0.36123	0.3048	ug/L	0.36123	118.53%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	49.0	0.030	ug/L	0.0105	0.030	ug/L	0.0105	34.85%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	62.9	0.296	ug/L	0.0244	0.296	ug/L	0.0244	8.25%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	-2.5	-9.635	ug/L	3.7250	-9.635	ug/L	3.7250	38.66%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	-59.0	-2.053	ug/L	0.3911	-2.053	ug/L	0.3911	19.05%
QC value within limits for V 290.880 Recovery = Not calculated								

Zn 206.200†	1.0	0.855 ug/L	0.4370	0.855 ug/L	0.4370	51.14%

QC value within limits for Zn 206.200 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 10
Sample ID: 1011118-BLK1
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.5 g
Dilution:

Autosampler Location: 26
Date Collected: 12/2/2010 9:26:02 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 1011118-BLK1

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: 1011118-BLK1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2556840.3	103.8	%	0.53				0.51%
Sc Radial	306475.6	104.4	%	0.70				0.67%
Ag 328.068†	44.0	0.6929	ug/L	0.21111	0.0693	mg/kg	0.02111	30.47%
Al 396.153†	24.5	5.136	ug/L	1.5963	0.5136	mg/kg	0.15963	31.08%
As 193.696†	1.0	9.182	ug/L	16.7372	0.9182	mg/kg	1.67372	182.28%
Ba 233.527†	0.0	0.0019	ug/L	0.07719	0.0002	mg/kg	0.00772	>999.9%
Be 313.107†	-9.1	-0.0316	ug/L	0.01990	-0.0032	mg/kg	0.00199	62.91%
B 249.677†	155.0	23.02	ug/L	1.081	2.302	mg/kg	0.1081	4.70%
Ca 317.933†	13.9	4.758	ug/L	1.9506	0.4758	mg/kg	0.19506	41.00%
Cd 214.440†	-0.5	-0.1456	ug/L	0.66687	-0.0146	mg/kg	0.06669	457.95%
Co 228.616†	2.8	0.6276	ug/L	0.98414	0.0628	mg/kg	0.09841	156.80%
Cr 267.716†	0.4	0.0685	ug/L	0.53793	0.0068	mg/kg	0.05379	785.41%
Cu 324.752†	45.8	0.4528	ug/L	0.25688	0.0453	mg/kg	0.02569	56.72%
Fe 238.204†	2.8	20.26	ug/L	16.936	2.026	mg/kg	1.6936	83.60%
K 766.490†	5.8	3.031	ug/L	10.8665	0.3031	mg/kg	1.08665	358.54%
Mg 285.213†	3.9	0.6163	ug/L	0.55140	0.0616	mg/kg	0.05514	89.47%
Mn 257.610†	121.2	0.8690	ug/L	0.00404	0.0869	mg/kg	0.00040	0.47%
Mo 202.031†	1.2	2.187	ug/L	2.3046	0.2187	mg/kg	0.23046	105.40%
Na 589.592†	12.0	2.259	ug/L	2.9778	0.2259	mg/kg	0.29778	131.84%
Ni 231.604†	-4.3	-2.454	ug/L	0.8010	-0.2454	mg/kg	0.08010	32.64%
Pb 220.353†	-0.2	-0.3881	ug/L	12.91950	-0.0388	mg/kg	1.29195	>999.9%
Sb 206.836†	2.5	9.262	ug/L	5.4552	0.9262	mg/kg	0.54552	58.90%
Se 196.026†	-2.7	-30.95	ug/L	20.104	-3.095	mg/kg	2.0104	64.95%
SiO2 251.603†	-54.8	-16.39	ug/L	1.347	-1.639	mg/kg	0.1347	8.22%
Sr 421.552†	50.9	0.031	ug/L	0.0127	0.003	mg/kg	0.0013	40.46%
Ti 334.940†	40.0	0.188	ug/L	0.0192	0.019	mg/kg	0.0019	10.21%
Tl 190.801†	-0.9	-3.611	ug/L	5.0177	-0.361	mg/kg	0.5018	138.96%
V 290.880†	-56.2	-1.976	ug/L	0.9421	-0.198	mg/kg	0.0942	47.68%
Zn 206.200†	2.6	2.311	ug/L	0.6336	0.231	mg/kg	0.0634	27.41%

Sequence No.: 11
Sample ID: 1011118-SRM1
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.2574 g
Dilution:

Autosampler Location: 27
Date Collected: 12/2/2010 9:29:04 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 1011118-SRM1

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: 1011118-SRM1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2263375.1	91.85	%	0.286				0.31%
Sc Radial	292517.2	99.62	%	0.371				0.37%
Ag 328.068†	5981.1	103.0	ug/L	0.70	20.02	mg/kg	0.136	0.68%
Al 396.153†	7714.7	1443	ug/L	4.1	280.3	mg/kg	0.79	0.28%
As 193.696†	432.8	4219	ug/L	96.6	819.6	mg/kg	18.76	2.29%
Ba 233.527†	292.4	13.57	ug/L	0.202	2.635	mg/kg	0.0393	1.49%
Be 313.107†	26263.2	89.25	ug/L	0.271	17.34	mg/kg	0.053	0.30%
B 249.677†	-700.8	-104.1	ug/L	1.25	-20.22	mg/kg	0.243	1.20%
Ca 317.933†	2569538.9	877400	ug/L	2783.0	170400	mg/kg	540.6	0.32%
Cd 214.440†	627.5	188.4	ug/L	1.19	36.60	mg/kg	0.231	0.63%
Co 228.616†	2803.1	635.9	ug/L	3.64	123.5	mg/kg	0.71	0.57%
Cr 267.716†	2869.1	485.8	ug/L	4.91	94.37	mg/kg	0.955	1.01%
Cu 324.752†	3331985.5	33340	ug/L	78.4	6476	mg/kg	15.2	0.24%
Fe 238.204†	12411.2	88510	ug/L	495.7	17190	mg/kg	96.3	0.56%
K 766.490†	495.7	154.6	ug/L	14.70	30.03	mg/kg	2.856	9.51%
Mg 285.213†	3223256.1	502100	ug/L	1197.3	97540	mg/kg	232.6	0.24%
Mn 257.610†	138261.1	980.0	ug/L	5.96	190.4	mg/kg	1.16	0.61%
Mo 202.031†	103.0	173.8	ug/L	4.32	33.77	mg/kg	0.839	2.49%
Na 589.592†	907.6	-71.79	ug/L	3.674	-13.94	mg/kg	0.714	5.12%
Ni 231.604†	469.0	252.8	ug/L	2.45	49.12	mg/kg	0.476	0.97%
Pb 220.353†	485.7	1072	ug/L	19.8	208.2	mg/kg	3.84	1.85%
Sb 206.836†	318.6	1172	ug/L	10.8	227.6	mg/kg	2.11	0.93%
Se 196.026†	24.0	231.3	ug/L	28.22	44.93	mg/kg	5.482	12.20%
SiO2 251.603†	57391.3	17080	ug/L	136.1	3318	mg/kg	26.4	0.80%
Sr 421.552†	443491.0	273.5	ug/L	0.58	53.13	mg/kg	0.113	0.21%
Ti 334.940†	18770.8	88.32	ug/L	1.083	17.16	mg/kg	0.210	1.23%
Tl 190.801†	25.9	67.48	ug/L	15.276	13.11	mg/kg	2.967	22.64%
V 290.880†	9565.9	322.2	ug/L	2.89	62.60	mg/kg	0.562	0.90%
Zn 206.200†	722.6	630.9	ug/L	3.94	122.5	mg/kg	0.77	0.63%

Matrix Recovery Check: 1011118-SRM1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	1550	1443	4.056	ug/L	93.1
Ca 317.933	920000	877400	2783.018	ug/L	95.4
Fe 238.204	105000	88510	495.704	ug/L	84.3
K 766.490	515.0	154.6	14.704	ug/L	29.6
Mg 285.213	565000	502100	1197.332	ug/L	88.9
Na 589.592	466.3	-71.79	3.674	ug/L	-16.0
Ag 328.068	105.2	103.0	0.699	ug/L	97.9
As 193.696	4659	4219	96.597	ug/L	90.5
Ba 233.527	26.50	13.57	0.202	ug/L	51.2
Be 313.107	93.97	89.25	0.271	ug/L	95.0
Cd 214.440	207.9	188.4	1.191	ug/L	90.7
Co 228.616	700.6	635.9	3.636	ug/L	90.8
Cr 267.716	482.6	485.8	4.914	ug/L	100.7
Cu 324.752	33400	33340	78.358	ug/L	99.8
Mn 257.610	1006	980.0	5.957	ug/L	97.4
Ni 231.604	281.5	252.8	2.450	ug/L	89.9
Pb 220.353	1120	1072	19.777	ug/L	95.7
Sb 206.836	1074	1172	10.847	ug/L	109.1
Se 196.026	154.0	231.3	28.224	ug/L	141.8
Tl 190.801	186.9	67.48	15.276	ug/L	37.3

V 290.880	327.0	322.2	2.895	ug/L	98.5
Zn 206.200	877.3	630.9	3.945	ug/L	71.8

Sequence No.: 12
Sample ID: C101105-01 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.4911 g
Dilution: 5X

Autosampler Location: 28
Date Collected: 12/2/2010 9:32:47 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: C101105-01 @5X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: C101105-01 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2348350.2	95.30	%	0.349				0.37%
Sc Radial	301842.1	102.8	%	0.19				0.18%
Ag 328.068†	-7.5	1.249	ug/L	0.2348	0.6360	mg/kg	0.11950	18.79%
Al 396.153†	2949.1	466.8	ug/L	5.81	237.6	mg/kg	2.96	1.25%
As 193.696†	11.7	101.3	ug/L	8.15	51.56	mg/kg	4.151	8.05%
Ba 233.527†	781.8	59.30	ug/L	0.624	30.19	mg/kg	0.318	1.05%
Be 313.107†	2085.1	6.404	ug/L	0.1175	3.260	mg/kg	0.0598	1.83%
B 249.677†	-352.5	-52.36	ug/L	0.933	-26.66	mg/kg	0.475	1.78%
Ca 317.933†	1711839.0	584600	ug/L	3555.4	297600	mg/kg	1809.9	0.61%
Cd 214.440†	210.3	62.45	ug/L	0.457	31.79	mg/kg	0.233	0.73%
Co 228.616†	10.2	3.651	ug/L	0.5636	1.859	mg/kg	0.2869	15.44%
Cr 267.716†	-6.1	1.870	ug/L	0.2020	0.9520	mg/kg	0.10281	10.80%
Cu 324.752†	8490.3	83.85	ug/L	1.208	42.68	mg/kg	0.615	1.44%
Fe 238.204†	610.6	4339	ug/L	58.3	2209	mg/kg	29.7	1.34%
K 766.490†	1111.3	642.8	ug/L	15.36	327.2	mg/kg	7.82	2.39%
Mg 285.213†	29938.3	4643	ug/L	22.1	2363	mg/kg	11.2	0.48%
Mn 257.610†	370083.1	2650	ug/L	2.6	1349	mg/kg	1.3	0.10%
Mo 202.031†	0.0	-8.945	ug/L	6.6181	-4.554	mg/kg	3.3690	73.99%
Na 589.592†	5426.1	968.3	ug/L	5.31	492.9	mg/kg	2.70	0.55%
Ni 231.604†	16.1	4.834	ug/L	0.4848	2.461	mg/kg	0.2468	10.03%
Pb 220.353†	9.5	43.03	ug/L	12.029	21.90	mg/kg	6.123	27.95%
Sb 206.836†	-2.0	-8.990	ug/L	9.9822	-4.576	mg/kg	5.0816	111.04%
Se 196.026†	26.1	257.4	ug/L	48.65	131.0	mg/kg	24.77	18.90%
SiO2 251.603†	14676.6	4385	ug/L	45.9	2232	mg/kg	23.4	1.05%
Sr 421.552†	Saturated2							
Ti 334.940†	1253.8	5.899	ug/L	0.0985	3.003	mg/kg	0.0501	1.67%
Tl 190.801†	0.2	-17.18	ug/L	12.239	-8.744	mg/kg	6.2303	71.25%
V 290.880†	230.3	-2.705	ug/L	0.4426	-1.377	mg/kg	0.2253	16.36%
Zn 206.200†	15649.7	13920	ug/L	308.2	7085	mg/kg	156.9	2.21%

Sequence No.: 13
Sample ID: 1011118-DUP1 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.4968 g
Dilution: 5X

Autosampler Location: 29
Date Collected: 12/2/2010 9:36:58 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 1011118-DUP1 @5X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: 1011118-DUP1 @5X

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2368054.2	96.09	%	0.170				0.18%
Sc Radial	301994.3	102.8	%	0.15				0.14%
Ag 328.068†	1.4	1.519	ug/L	0.1111	0.7644	mg/kg	0.05593	7.32%
Al 396.153†	3169.2	492.9	ug/L	11.14	248.1	mg/kg	5.61	2.26%
As 193.696†	11.8	100.5	ug/L	29.64	50.60	mg/kg	14.913	29.47%
Ba 233.527†	855.4	64.77	ug/L	0.346	32.59	mg/kg	0.174	0.53%
Be 313.107†	2225.8	6.790	ug/L	0.1098	3.417	mg/kg	0.0553	1.62%
B 249.677†	-390.3	-57.98	ug/L	0.072	-29.18	mg/kg	0.036	0.12%
Ca 317.933†	1925551.4	657600	ug/L	7570.1	330900	mg/kg	3809.4	1.15%
Cd 214.440†	235.8	70.04	ug/L	0.767	35.24	mg/kg	0.386	1.09%
Co 228.616†	17.7	5.495	ug/L	1.3163	2.765	mg/kg	0.6624	23.95%
Cr 267.716†	-6.5	2.141	ug/L	0.7068	1.077	mg/kg	0.3557	33.01%
Cu 324.752†	8963.9	88.43	ug/L	0.122	44.50	mg/kg	0.061	0.14%
Fe 238.204†	654.9	4652	ug/L	24.3	2341	mg/kg	12.2	0.52%
K 766.490†	1121.8	647.5	ug/L	9.78	325.8	mg/kg	4.92	1.51%
Mg 285.213†	32599.9	5055	ug/L	20.2	2544	mg/kg	10.2	0.40%
Mn 257.610†	418280.3	2995	ug/L	3.1	1507	mg/kg	1.6	0.10%
Mo 202.031†	1.7	-6.899	ug/L	2.7300	-3.472	mg/kg	1.3738	39.57%
Na 589.592†	5906.1	1053	ug/L	2.4	530.1	mg/kg	1.20	0.23%
Ni 231.604†	17.2	4.948	ug/L	1.6110	2.490	mg/kg	0.8107	32.56%
Pb 220.353†	12.3	51.91	ug/L	3.801	26.12	mg/kg	1.913	7.32%
Sb 206.836†	1.1	2.480	ug/L	12.1354	1.248	mg/kg	6.1068	489.42%
Se 196.026†	18.4	164.5	ug/L	40.84	82.78	mg/kg	20.550	24.83%
SiO2 251.603†	16107.5	4813	ug/L	34.7	2422	mg/kg	17.5	0.72%
Sr 421.552†	Saturated2							
Ti 334.940†	1299.9	6.116	ug/L	0.1081	3.078	mg/kg	0.0544	1.77%
Tl 190.801†	-0.7	-22.84	ug/L	18.844	-11.49	mg/kg	9.483	82.50%
V 290.880†	188.6	-5.453	ug/L	0.6376	-2.744	mg/kg	0.3209	11.69%
Zn 206.200†	17557.4	15610	ug/L	145.8	7858	mg/kg	73.4	0.93%

Duplicate Check: 1011118-DUP1 @5X

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Sc Radial	102.8	102.8	0.148	%	0.1
Al 396.153	466.8	492.9	11.141	ug/L	5.5
Ca 317.933	584600	657600	7570.133	ug/L	11.8
Fe 238.204	4339	4652	24.301	ug/L	7.0
K 766.490	642.8	647.5	9.778	ug/L	0.7
Mg 285.213	4643	5055	20.208	ug/L	8.5
Na 589.592	968.3	1053	2.393	ug/L	8.4
Sc Axial	95.30	96.09	0.170	%	0.8
Ag 328.068	1.249	1.519	0.111	ug/L	19.5
As 193.696	101.3	100.5	29.635	ug/L	0.7
Ba 233.527	59.30	64.77	0.346	ug/L	8.8
Be 313.107	6.404	6.790	0.110	ug/L	5.9
B 249.677	-52.36	-57.98	0.072	ug/L	-10.2
Cd 214.440	62.45	70.04	0.767	ug/L	11.4
Co 228.616	3.651	5.495	1.316	ug/L	40.3
Cr 267.716	1.870	2.141	0.707	ug/L	13.5
Cu 324.752	83.85	88.43	0.122	ug/L	5.3
Mn 257.610	2650	2995	3.105	ug/L	12.2
Mo 202.031	-8.945	-6.899	2.730	ug/L	-25.8
Ni 231.604	4.834	4.948	1.611	ug/L	2.3

Pb 220.353	43.03	51.91	3.801	ug/L	18.7
Sb 206.836	-8.990	2.480	12.135	ug/L	-352.3
Se 196.026	257.4	164.5	40.837	ug/L	44.0
SiO2 251.603	4385	4813	34.679	ug/L	9.3
Sr 421.552			0.000	ug/L	Not calculated
Ti 334.940	5.899	6.116	0.108	ug/L	3.6
Tl 190.801	-17.18	-22.84	18.844	ug/L	-28.3
V 290.880	-2.705	-5.453	0.638	ug/L	-67.4
Zn 206.200	13920	15610	145.846	ug/L	11.5

Sequence No.: 14
Sample ID: SEQ-SRD1 @25X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.4911 g
Dilution: 25X

Autosampler Location: 30
Date Collected: 12/2/2010 9:41:09 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: SEQ-SRD1 @25X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: SEQ-SRD1 @25X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2479888.2	100.6	%	0.46				0.46%
Sc Radial	307823.3	104.8	%	0.71				0.68%
Ag 328.068†	1.5	1.525	ug/L	0.1605	3.881	mg/kg	0.4086	10.53%
Al 396.153†	698.7	132.4	ug/L	12.17	337.1	mg/kg	30.98	9.19%
As 193.696†	4.3	38.75	ug/L	11.221	98.64	mg/kg	28.561	28.95%
Ba 233.527†	158.0	11.34	ug/L	0.170	28.87	mg/kg	0.433	1.50%
Be 313.107†	436.9	1.307	ug/L	0.0201	3.327	mg/kg	0.0512	1.54%
B 249.677†	-199.5	-29.63	ug/L	0.250	-75.41	mg/kg	0.637	0.84%
Ca 317.933†	342290.8	116900	ug/L	1249.1	297500	mg/kg	3179.3	1.07%
Cd 214.440†	42.2	12.52	ug/L	0.530	31.86	mg/kg	1.348	4.23%
Co 228.616†	2.3	0.8197	ug/L	0.42557	2.086	mg/kg	1.0832	51.92%
Cr 267.716†	-7.8	-0.2750	ug/L	0.19449	-0.6999	mg/kg	0.49503	70.73%
Cu 324.752†	1669.8	16.93	ug/L	0.228	43.09	mg/kg	0.580	1.35%
Fe 238.204†	124.4	880.4	ug/L	18.31	2241	mg/kg	46.6	2.08%
K 766.490†	209.6	55.19	ug/L	15.101	140.5	mg/kg	38.44	27.36%
Mg 285.213†	5931.9	919.2	ug/L	5.22	2340	mg/kg	13.3	0.57%
Mn 257.610†	76098.8	544.7	ug/L	0.98	1386	mg/kg	2.5	0.18%
Mo 202.031†	5.6	9.539	ug/L	3.1727	24.28	mg/kg	8.075	33.26%
Na 589.592†	1038.5	173.2	ug/L	2.67	440.9	mg/kg	6.80	1.54%
Ni 231.604†	-2.1	-1.600	ug/L	1.9566	-4.073	mg/kg	4.9801	122.27%
Pb 220.353†	-2.1	-2.498	ug/L	4.5377	-6.359	mg/kg	11.5499	181.63%
Sb 206.836†	-1.8	-10.51	ug/L	10.541	-26.76	mg/kg	26.830	100.25%
Se 196.026†	11.3	123.9	ug/L	36.81	315.4	mg/kg	93.69	29.70%
SiO2 251.603†	2923.1	853.8	ug/L	6.94	2173	mg/kg	17.7	0.81%
Sr 421.552†	1373771.1	847.3	ug/L	1.31	2157	mg/kg	3.3	0.16%
Ti 334.940†	196.1	0.923	ug/L	0.0222	2.349	mg/kg	0.0564	2.40%
Tl 190.801†	-2.6	-15.58	ug/L	2.005	-39.66	mg/kg	5.103	12.87%
V 290.880†	33.3	-2.553	ug/L	0.3539	-6.497	mg/kg	0.9008	13.86%
Zn 206.200†	3365.8	2992	ug/L	22.1	7614	mg/kg	56.2	0.74%

Dilution Check: SEQ-SRD1 @25X

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Sc Radial	20.56	104.8	0.713	%	409.9
Al 396.153	93.35	132.4	12.171	ug/L	41.9
Ca 317.933	116900	116900	1249.065	ug/L	0.0
Fe 238.204	867.7	880.4	18.308	ug/L	1.5
K 766.490	128.6	55.19	15.101	ug/L	57.1
Mg 285.213	928.5	919.2	5.221	ug/L	1.0
Na 589.592	193.7	173.2	2.671	ug/L	10.5
Sc Axial	19.06	100.6	0.459	%	428.0
Ag 328.068	0.2499	1.525	0.161	ug/L	510.1
As 193.696	20.26	38.75	11.221	ug/L	91.3
Ba 233.527	11.86	11.34	0.170	ug/L	4.4
Be 313.107	1.281	1.307	0.020	ug/L	2.1
B 249.677	-10.47	-29.63	0.250	ug/L	-182.9
Cd 214.440	12.49	12.52	0.530	ug/L	0.2
Co 228.616	0.7302	0.8197	0.426	ug/L	12.3
Cr 267.716	0.3740	-0.2750	0.194	ug/L	173.5
Cu 324.752	16.77	16.93	0.228	ug/L	0.9
Mn 257.610	529.9	544.7	0.981	ug/L	2.8
Mo 202.031	-1.789	9.539	3.173	ug/L	-633.2
Ni 231.604	0.9668	-1.600	1.957	ug/L	265.5

Pb 220.353	8.606	-2.498	4.538	ug/L	129.0
Sb 206.836	-1.798	-10.51	10.541	ug/L	-484.8
Se 196.026	51.47	123.9	36.809	ug/L	140.8
SiO2 251.603	876.9	853.8	6.942	ug/L	2.6
Sr 421.552		847.3	1.314	ug/L	Not calculated
Ti 334.940	1.180	0.923	0.022	ug/L	21.8
Tl 190.801	-3.435	-15.58	2.005	ug/L	-353.5
V 290.880	-0.541	-2.553	0.354	ug/L	-371.8
Zn 206.200	2784	2992	22.066	ug/L	7.5

Sequence No.: 15
Sample ID: 1011118-MS1 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.5194 g
Dilution: 5X

Autosampler Location: 31
Date Collected: 12/2/2010 9:44:15 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 1011118-MS1 @5X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: 1011118-MS1 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2359234.9	95.74	%	0.100				0.10%
Sc Radial	304662.8	103.8	%	0.88				0.85%
Ag 328.068†	908.9	16.22	ug/L	0.283	7.805	mg/kg	0.1362	1.75%
Al 396.153†	5121.3	910.9	ug/L	22.18	438.5	mg/kg	10.68	2.44%
As 193.696†	29.7	276.8	ug/L	53.42	133.3	mg/kg	25.71	19.30%
Ba 233.527†	1371.4	106.7	ug/L	0.44	51.36	mg/kg	0.212	0.41%
Be 313.107†	13060.7	44.27	ug/L	0.223	21.31	mg/kg	0.107	0.50%
B 249.677†	-24.7	-3.667	ug/L	0.8499	-1.765	mg/kg	0.4091	23.18%
Ca 317.933†	1919438.3	655500	ug/L	6949.6	315500	mg/kg	3345.0	1.06%
Saturated within auto integration window (code 4)								
Cd 214.440†	343.4	101.9	ug/L	0.53	49.07	mg/kg	0.256	0.52%
Co 228.616†	180.6	42.42	ug/L	0.782	20.42	mg/kg	0.376	1.84%
Cr 267.716†	441.7	76.00	ug/L	0.642	36.58	mg/kg	0.309	0.85%
Cu 324.752†	15051.8	149.5	ug/L	0.68	71.95	mg/kg	0.326	0.45%
Fe 238.204†	852.3	6060	ug/L	76.1	2917	mg/kg	36.6	1.26%
K 766.490†	4755.0	2752	ug/L	14.4	1325	mg/kg	6.9	0.52%
Mg 285.213†	36159.6	5609	ug/L	54.1	2700	mg/kg	26.1	0.97%
Mn 257.610†	435701.3	3119	ug/L	5.5	1501	mg/kg	2.7	0.18%
Mo 202.031†	38.3	61.44	ug/L	8.728	29.57	mg/kg	4.201	14.21%
Na 589.592†	9657.2	1738	ug/L	14.2	836.5	mg/kg	6.86	0.82%
Ni 231.604†	183.2	99.45	ug/L	1.542	47.87	mg/kg	0.742	1.55%
Pb 220.353†	105.5	252.1	ug/L	15.44	121.4	mg/kg	7.43	6.13%
Sb 206.836†	34.8	127.2	ug/L	8.08	61.22	mg/kg	3.891	6.36%
Se 196.026†	50.4	529.2	ug/L	80.44	254.7	mg/kg	38.72	15.20%
SiO2 251.603†	20724.3	6174	ug/L	64.6	2972	mg/kg	31.1	1.05%
Sr 421.552†	Saturated2							
Ti 334.940†	8797.3	41.39	ug/L	0.061	19.92	mg/kg	0.029	0.15%
Tl 190.801†	77.2	278.9	ug/L	50.45	134.2	mg/kg	24.28	18.09%
V 290.880†	1830.5	52.82	ug/L	0.417	25.42	mg/kg	0.201	0.79%
Zn 206.200†	18014.2	16020	ug/L	219.1	7711	mg/kg	105.4	1.37%

Matrix Recovery Check: 1011118-MS1 @5X

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	2467	910.9	22.185	ug/L	22.2
Ca 317.933	585600	655500	6949.594	ug/L	7089.1
Fe 238.204	7339	6060	76.066	ug/L	57.4
K 766.490	10640	2752	14.380	ug/L	21.1
Mg 285.213	6643	5609	54.128	ug/L	48.3
Na 589.592	3968	1738	14.242	ug/L	25.7
Ag 328.068	76.25	16.22	0.283	ug/L	20.0
As 193.696	901.3	276.8	53.419	ug/L	21.9
Ba 233.527	259.3	106.7	0.440	ug/L	23.7
Be 313.107	206.4	44.27	0.223	ug/L	18.9
B 249.677	247.6	-3.667	0.850	ug/L	16.2
Cd 214.440	262.5	101.9	0.532	ug/L	19.7
Co 228.616	203.7	42.42	0.782	ug/L	19.4
Cr 267.716	401.9	76.00	0.642	ug/L	18.5
Cu 324.752	383.9	149.5	0.677	ug/L	21.9
Mn 257.610	2850	3119	5.544	ug/L	234.9
Mo 202.031	391.1	61.44	8.728	ug/L	17.6
Ni 231.604	504.8	99.45	1.542	ug/L	18.9
Pb 220.353	1043	252.1	15.443	ug/L	20.9

Sb 206.836	791.0	127.2	8.085	ug/L	17.0
Se 196.026	2257	529.2	80.437	ug/L	13.6
SiO2 251.603	6385	6174	64.570	ug/L	89.5
Ti 334.940	205.9	41.39	0.061	ug/L	17.7
Tl 190.801	1983	278.9	50.454	ug/L	14.8
V 290.880	297.3	52.82	0.417	ug/L	18.5
Zn 206.200	14120	16020	219.056	ug/L	1051.1

Sequence No.: 16
Sample ID: 1011118-MSD1 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.5002 g
Dilution: 5X

Autosampler Location: 32
Date Collected: 12/2/2010 9:48:21 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 1011118-MSD1 @5X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: 1011118-MSD1 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2366512.4	96.03	%	0.694				0.72%
Sc Radial	303416.3	103.3	%	0.14				0.13%
Ag 328.068†	889.3	15.92	ug/L	0.211	7.959	mg/kg	0.1055	1.33%
Al 396.153†	5088.3	903.7	ug/L	4.87	451.7	mg/kg	2.44	0.54%
As 193.696†	27.3	252.6	ug/L	26.42	126.3	mg/kg	13.21	10.46%
Ba 233.527†	1319.6	102.5	ug/L	0.97	51.22	mg/kg	0.485	0.95%
Be 313.107†	12943.8	43.86	ug/L	0.461	21.92	mg/kg	0.231	1.05%
B 249.677†	-15.9	-2.362	ug/L	0.6412	-1.181	mg/kg	0.3205	27.14%
Ca 317.933†	1921461.7	656200	ug/L	4269.6	328000	mg/kg	2133.9	0.65%
Cd 214.440†	359.8	106.8	ug/L	0.50	53.39	mg/kg	0.248	0.46%
Co 228.616†	183.0	42.96	ug/L	1.216	21.47	mg/kg	0.608	2.83%
Cr 267.716†	440.2	75.92	ug/L	0.625	37.94	mg/kg	0.312	0.82%
Cu 324.752†	15824.7	157.2	ug/L	1.73	78.58	mg/kg	0.865	1.10%
Fe 238.204†	740.0	5258	ug/L	39.1	2628	mg/kg	19.6	0.74%
K 766.490†	4664.7	2698	ug/L	35.9	1349	mg/kg	18.0	1.33%
Mg 285.213†	34931.9	5417	ug/L	12.8	2708	mg/kg	6.4	0.24%
Mn 257.610†	397032.2	2842	ug/L	2.8	1421	mg/kg	1.4	0.10%
Mo 202.031†	39.6	63.71	ug/L	1.281	31.84	mg/kg	0.640	2.01%
Na 589.592†	9356.2	1683	ug/L	5.3	841.0	mg/kg	2.67	0.32%
Ni 231.604†	179.0	97.10	ug/L	1.356	48.53	mg/kg	0.678	1.40%
Pb 220.353†	102.3	245.2	ug/L	11.47	122.6	mg/kg	5.73	4.68%
Sb 206.836†	43.8	160.7	ug/L	15.91	80.32	mg/kg	7.951	9.90%
Se 196.026†	47.8	500.2	ug/L	105.37	250.0	mg/kg	52.66	21.06%
SiO2 251.603†	19298.5	5754	ug/L	80.4	2876	mg/kg	40.2	1.40%
Sr 421.552†	Saturated2							
Ti 334.940†	8774.6	41.29	ug/L	0.540	20.64	mg/kg	0.270	1.31%
Tl 190.801†	79.2	287.0	ug/L	9.95	143.4	mg/kg	4.97	3.47%
V 290.880†	1825.3	52.73	ug/L	1.002	26.36	mg/kg	0.501	1.90%
Zn 206.200†	18352.5	16320	ug/L	251.4	8157	mg/kg	125.7	1.54%

Matrix Recovery Check: 1011118-MSD1 @5X

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	2467	903.7	4.874	ug/L	21.8
Ca 317.933	585600	656200	4269.597	ug/L	7158.2
Fe 238.204	7339	5258	39.123	ug/L	30.7
K 766.490	10640	2698	35.937	ug/L	20.6
Mg 285.213	6643	5417	12.814	ug/L	38.7
Na 589.592	3968	1683	5.338	ug/L	23.8
Ag 328.068	76.25	15.92	0.211	ug/L	19.6
As 193.696	901.3	252.6	26.423	ug/L	18.9
Ba 233.527	259.3	102.5	0.970	ug/L	21.6
Be 313.107	206.4	43.86	0.461	ug/L	18.7
B 249.677	247.6	-2.362	0.641	ug/L	16.7
Cd 214.440	262.5	106.8	0.495	ug/L	22.2
Co 228.616	203.7	42.96	1.216	ug/L	19.7
Cr 267.716	401.9	75.92	0.625	ug/L	18.5
Cu 324.752	383.9	157.2	1.731	ug/L	24.5
Mn 257.610	2850	2842	2.845	ug/L	96.4
Mo 202.031	391.1	63.71	1.281	ug/L	18.2
Ni 231.604	504.8	97.10	1.356	ug/L	18.5
Pb 220.353	1043	245.2	11.472	ug/L	20.2
Sb 206.836	791.0	160.7	15.909	ug/L	21.2

Se 196.026	2257	500.2	105.371	ug/L	12.1
SiO2 251.603	6385	5754	80.372	ug/L	68.4
Ti 334.940	205.9	41.29	0.540	ug/L	17.7
Tl 190.801	1983	287.0	9.951	ug/L	15.2
V 290.880	297.3	52.73	1.002	ug/L	18.5
Zn 206.200	14120	16320	251.444	ug/L	1201.5

Sequence No.: 17
Sample ID: 1011118-PS1 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.4911 g
Dilution: 5X

Autosampler Location: 33
Date Collected: 12/2/2010 9:52:33 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 1011118-PS1 @5X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: 1011118-PS1 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2369183.2	96.14	%	0.356				0.37%
Sc Radial	306502.8	104.4	%	0.81				0.78%
Ag 328.068†	1336.0	22.75	ug/L	0.184	11.58	mg/kg	0.093	0.81%
Al 396.153†	12995.2	2631	ug/L	20.7	1339	mg/kg	10.6	0.79%
As 193.696†	6.6	54.99	ug/L	20.636	27.99	mg/kg	10.505	37.53%
Ba 233.527†	1011.6	78.04	ug/L	1.087	39.73	mg/kg	0.553	1.39%
Be 313.107†	7906.7	26.55	ug/L	0.337	13.52	mg/kg	0.171	1.27%
B 249.677†	-394.1	-58.53	ug/L	1.060	-29.80	mg/kg	0.539	1.81%
Ca 317.933†	1686492.2	575900	ug/L	6543.7	293200	mg/kg	3331.2	1.14%
Cd 214.440†	270.5	80.32	ug/L	0.638	40.89	mg/kg	0.325	0.79%
Co 228.616†	100.8	24.12	ug/L	0.307	12.28	mg/kg	0.156	1.27%
Cr 267.716†	110.5	21.10	ug/L	0.297	10.74	mg/kg	0.151	1.41%
Cu 324.752†	10497.4	104.0	ug/L	0.98	52.92	mg/kg	0.499	0.94%
Fe 238.204†	875.8	6231	ug/L	62.6	3172	mg/kg	31.9	1.00%
K 766.490†	4840.9	2805	ug/L	41.4	1428	mg/kg	21.1	1.47%
Mg 285.213†	42876.9	6659	ug/L	56.7	3390	mg/kg	28.9	0.85%
Mn 257.610†	364797.3	2612	ug/L	1.8	1330	mg/kg	0.9	0.07%
Mo 202.031†	13.6	16.50	ug/L	6.724	8.399	mg/kg	3.4231	40.76%
Na 589.592†	17369.4	3166	ug/L	29.0	1612	mg/kg	14.8	0.92%
Ni 231.604†	52.3	25.44	ug/L	1.125	12.95	mg/kg	0.573	4.42%
Pb 220.353†	21.4	68.35	ug/L	4.654	34.80	mg/kg	2.369	6.81%
Sb 206.836†	1.7	4.897	ug/L	7.1730	2.493	mg/kg	3.6515	146.47%
Se 196.026†	25.2	247.9	ug/L	34.12	126.2	mg/kg	17.37	13.76%
SiO2 251.603†	14806.7	4420	ug/L	69.6	2250	mg/kg	35.4	1.58%
Sr 421.552†	Saturated2							
Ti 334.940†	1229.4	5.785	ug/L	0.0800	2.945	mg/kg	0.0407	1.38%
Tl 190.801†	4.8	0.547	ug/L	13.1022	0.278	mg/kg	6.6698	>999.9%
V 290.880†	772.8	16.54	ug/L	0.783	8.422	mg/kg	0.3986	4.73%
Zn 206.200†	15505.2	13790	ug/L	236.2	7020	mg/kg	120.2	1.71%

Matrix Recovery Check: 1011118-PS1 @5X

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	10570	2631	20.728	ug/L	21.4
Ca 317.933	594700	575900	6543.726	ug/L	-85.7
Fe 238.204	14440	6231	62.623	ug/L	18.7
K 766.490	10740	2805	41.361	ug/L	21.4
Mg 285.213	14740	6659	56.718	ug/L	20.0
Na 589.592	11070	3166	29.000	ug/L	21.8
Ag 328.068	101.2	22.75	0.184	ug/L	21.5
As 193.696	201.3	54.99	20.636	ug/L	-46.3
Ba 233.527	159.3	78.04	1.087	ug/L	18.7
Be 313.107	106.4	26.55	0.337	ug/L	20.1
Cd 214.440	162.5	80.32	0.638	ug/L	17.9
Co 228.616	103.7	24.12	0.307	ug/L	20.5
Cr 267.716	101.9	21.10	0.297	ug/L	19.2
Cu 324.752	183.9	104.0	0.981	ug/L	20.1
Mn 257.610	2750	2612	1.823	ug/L	-37.9
Mo 202.031	91.06	16.50	6.724	ug/L	25.4
Ni 231.604	104.8	25.44	1.125	ug/L	20.6
Pb 220.353	143.0	68.35	4.654	ug/L	25.3
Sb 206.836	91.01	4.897	7.173	ug/L	13.9
Se 196.026	757.4	247.9	34.124	ug/L	-1.9

SiO2 251.603	9385	4420	69.626	ug/L	0.7
Tl 190.801	82.82	0.547	13.102	ug/L	17.7
V 290.880	97.29	16.54	0.783	ug/L	19.2
Zn 206.200	14020	13790	236.154	ug/L	-128.7

Sequence No.: 18
Sample ID: C101105-02 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.501 g
Dilution: 5X

Autosampler Location: 34
Date Collected: 12/2/2010 9:56:46 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: C101105-02 @5X

Analyte	Back Pressure	Flow
All	116.0 kPa	0.80 L/min

Mean Data: C101105-02 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2473096.0	100.4	%	0.13				0.13%
Sc Radial	314867.8	107.2	%	0.70				0.65%
Ag 328.068†	717.9	19.81	ug/L	0.265	9.885	mg/kg	0.1323	1.34%
Al 396.153†	70777.2	15200	ug/L	64.7	7587	mg/kg	32.3	0.43%
As 193.696†	32.2	342.3	ug/L	5.64	170.8	mg/kg	2.81	1.65%
Ba 233.527†	2671.8	213.5	ug/L	1.17	106.5	mg/kg	0.58	0.55%
Be 313.107†	1261.2	3.802	ug/L	0.0277	1.897	mg/kg	0.0138	0.73%
B 249.677†	-361.1	-53.63	ug/L	0.957	-26.76	mg/kg	0.478	1.79%
Ca 317.933†	704986.2	240700	ug/L	2727.2	120100	mg/kg	1360.9	1.13%
Cd 214.440†	104.8	31.06	ug/L	0.933	15.50	mg/kg	0.466	3.01%
Co 228.616†	106.2	23.06	ug/L	0.597	11.51	mg/kg	0.298	2.59%
Cr 267.716†	86.7	15.99	ug/L	0.128	7.981	mg/kg	0.0639	0.80%
Cu 324.752†	18486.6	186.1	ug/L	0.42	92.85	mg/kg	0.211	0.23%
Fe 238.204†	12683.1	90550	ug/L	747.6	45180	mg/kg	373.1	0.83%
K 766.490†	4540.4	2474	ug/L	14.1	1234	mg/kg	7.0	0.57%
Mg 285.213†	82242.7	12820	ug/L	49.1	6395	mg/kg	24.5	0.38%
Mn 257.610†	542251.6	3882	ug/L	2.2	1937	mg/kg	1.1	0.06%
Mo 202.031†	12.9	25.15	ug/L	5.046	12.55	mg/kg	2.518	20.07%
Na 589.592†	5745.1	986.1	ug/L	5.87	492.1	mg/kg	2.93	0.59%
Ni 231.604†	59.4	28.95	ug/L	1.677	14.45	mg/kg	0.837	5.79%
Pb 220.353†	306.2	670.4	ug/L	12.56	334.5	mg/kg	6.27	1.87%
Sb 206.836†	5.6	7.203	ug/L	7.0876	3.594	mg/kg	3.5367	98.40%
Se 196.026†	4.7	66.89	ug/L	71.879	33.38	mg/kg	35.868	107.46%
SiO2 251.603†	44941.8	13230	ug/L	115.8	6602	mg/kg	57.8	0.87%
Sr 421.552†	3527810.7	2176	ug/L	20.4	1086	mg/kg	10.2	0.94%
Ti 334.940†	34889.4	164.2	ug/L	1.31	81.92	mg/kg	0.654	0.80%
Tl 190.801†	-5.1	-38.97	ug/L	10.029	-19.44	mg/kg	5.005	25.74%
V 290.880†	956.2	15.21	ug/L	0.500	7.591	mg/kg	0.2496	3.29%
Zn 206.200†	3530.9	3135	ug/L	10.8	1564	mg/kg	5.4	0.35%

Sequence No.: 19
Sample ID: Blank
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 35
Date Collected: 12/2/2010 10:00:36 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Blank

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: Blank

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2543173.0	103.2	%	0.22				0.22%
Sc Radial	315381.5	107.4	%	1.05				0.97%
Ag 328.068†	12.5	0.1982	ug/L	0.11300	0.1982	ug/L	0.11300	57.02%
Al 396.153†	39.0	8.275	ug/L	1.8429	8.275	ug/L	1.8429	22.27%
As 193.696†	0.7	6.485	ug/L	4.6725	6.485	ug/L	4.6725	72.05%
Ba 233.527†	-0.3	-0.0282	ug/L	0.01790	-0.0282	ug/L	0.01790	63.58%
Be 313.107†	-3.2	-0.0112	ug/L	0.02141	-0.0112	ug/L	0.02141	190.51%
B 249.677†	49.0	7.284	ug/L	0.2615	7.284	ug/L	0.2615	3.59%
Ca 317.933†	20.0	6.773	ug/L	1.4968	6.773	ug/L	1.4968	22.10%
Cd 214.440†	0.6	0.1695	ug/L	0.69388	0.1695	ug/L	0.69388	409.28%
Co 228.616†	2.1	0.4644	ug/L	0.99981	0.4644	ug/L	0.99981	215.28%
Cr 267.716†	-1.3	-0.2102	ug/L	0.40367	-0.2102	ug/L	0.40367	192.07%
Cu 324.752†	43.4	0.4345	ug/L	0.05852	0.4345	ug/L	0.05852	13.47%
Fe 238.204†	3.7	26.20	ug/L	9.941	26.20	ug/L	9.941	37.95%
K 766.490†	15.2	9.241	ug/L	19.3594	9.241	ug/L	19.3594	209.49%
Mg 285.213†	1.1	0.1582	ug/L	0.15436	0.1582	ug/L	0.15436	97.57%
Mn 257.610†	3.2	0.0216	ug/L	0.03228	0.0216	ug/L	0.03228	149.34%
Mo 202.031†	0.6	1.101	ug/L	1.5103	1.101	ug/L	1.5103	137.20%
Na 589.592†	10.6	1.901	ug/L	3.6462	1.901	ug/L	3.6462	191.82%
Ni 231.604†	-3.4	-1.955	ug/L	1.0130	-1.955	ug/L	1.0130	51.82%
Pb 220.353†	1.7	3.640	ug/L	5.2834	3.640	ug/L	5.2834	145.14%
Sb 206.836†	1.5	5.707	ug/L	5.4306	5.707	ug/L	5.4306	95.16%
Se 196.026†	0.1	1.583	ug/L	19.5488	1.583	ug/L	19.5488	>999.9%
SiO2 251.603†	349.9	103.1	ug/L	2.09	103.1	ug/L	2.09	2.03%
Sr 421.552†	35.7	0.022	ug/L	0.0121	0.022	ug/L	0.0121	54.89%
Ti 334.940†	7.6	0.036	ug/L	0.0245	0.036	ug/L	0.0245	68.78%
Tl 190.801†	-4.1	-15.81	ug/L	4.856	-15.81	ug/L	4.856	30.71%
V 290.880†	-41.8	-1.484	ug/L	0.1978	-1.484	ug/L	0.1978	13.33%
Zn 206.200†	2.3	2.007	ug/L	1.1874	2.007	ug/L	1.1874	59.17%

Sequence No.: 20
Sample ID: SEQ-CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/2/2010 10:03:41 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCV

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: SEQ-CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2540992.6	103.1	%	0.65				0.63%
Sc Radial	315741.1	107.5	%	1.25				1.17%
Ag 328.068†	15828.4	255.5	ug/L	1.48	255.5	ug/L	1.48	0.58%
QC value within limits for Ag 328.068 Recovery = 102.19%								
Al 396.153†	58096.3	12500	ug/L	142.9	12500	ug/L	142.9	1.14%
QC value within limits for Al 396.153 Recovery = 100.02%								
As 193.696†	259.6	2551	ug/L	15.8	2551	ug/L	15.8	0.62%
QC value within limits for As 193.696 Recovery = 102.02%								
Ba 233.527†	6195.6	502.7	ug/L	5.43	502.7	ug/L	5.43	1.08%
QC value within limits for Ba 233.527 Recovery = 100.55%								
Be 313.107†	146991.1	508.3	ug/L	0.87	508.3	ug/L	0.87	0.17%
QC value within limits for Be 313.107 Recovery = 101.67%								
B 249.677†	33825.7	5024	ug/L	44.6	5024	ug/L	44.6	0.89%
QC value within limits for B 249.677 Recovery = 100.48%								
Ca 317.933†	36811.6	12510	ug/L	93.1	12510	ug/L	93.1	0.74%
QC value within limits for Ca 317.933 Recovery = 100.08%								
Cd 214.440†	1702.6	505.1	ug/L	3.78	505.1	ug/L	3.78	0.75%
QC value within limits for Cd 214.440 Recovery = 101.01%								
Co 228.616†	2233.2	505.9	ug/L	4.62	505.9	ug/L	4.62	0.91%
QC value within limits for Co 228.616 Recovery = 101.18%								
Cr 267.716†	15121.0	2492	ug/L	41.9	2492	ug/L	41.9	1.68%
QC value within limits for Cr 267.716 Recovery = 99.68%								
Cu 324.752†	100935.0	1012	ug/L	6.4	1012	ug/L	6.4	0.63%
QC value within limits for Cu 324.752 Recovery = 101.15%								
Fe 238.204†	1775.9	12650	ug/L	179.3	12650	ug/L	179.3	1.42%
QC value within limits for Fe 238.204 Recovery = 101.23%								
K 766.490†	43178.1	24940	ug/L	222.0	24940	ug/L	222.0	0.89%
QC value within limits for K 766.490 Recovery = 99.74%								
Mg 285.213†	80673.8	12560	ug/L	130.1	12560	ug/L	130.1	1.04%
QC value within limits for Mg 285.213 Recovery = 100.46%								
Mn 257.610†	142323.4	1018	ug/L	10.1	1018	ug/L	10.1	0.99%
QC value within limits for Mn 257.610 Recovery = 101.81%								
Mo 202.031†	266.1	495.8	ug/L	1.83	495.8	ug/L	1.83	0.37%
QC value within limits for Mo 202.031 Recovery = 99.15%								
Na 589.592†	68417.8	12490	ug/L	122.3	12490	ug/L	122.3	0.98%
QC value within limits for Na 589.592 Recovery = 99.96%								
Ni 231.604†	4425.8	2520	ug/L	17.8	2520	ug/L	17.8	0.71%
QC value within limits for Ni 231.604 Recovery = 100.80%								
Pb 220.353†	1184.2	2545	ug/L	20.9	2545	ug/L	20.9	0.82%
QC value within limits for Pb 220.353 Recovery = 101.81%								
Sb 206.836†	662.4	2433	ug/L	23.1	2433	ug/L	23.1	0.95%
QC value within limits for Sb 206.836 Recovery = 97.31%								
Se 196.026†	231.9	2645	ug/L	85.7	2645	ug/L	85.7	3.24%
QC value within limits for Se 196.026 Recovery = 105.78%								
SiO2 251.603†	34129.0	10050	ug/L	53.0	10050	ug/L	53.0	0.53%
QC value within limits for SiO2 251.603 Recovery = 100.47%								
Sr 421.552†	838769.2	517.3	ug/L	0.58	517.3	ug/L	0.58	0.11%
QC value within limits for Sr 421.552 Recovery = 103.46%								
Ti 334.940†	106695.2	502.0	ug/L	0.61	502.0	ug/L	0.61	0.12%
QC value within limits for Ti 334.940 Recovery = 100.41%								
Tl 190.801†	655.1	2542	ug/L	26.3	2542	ug/L	26.3	1.03%
QC value within limits for Tl 190.801 Recovery = 101.70%								
V 290.880†	28060.0	995.6	ug/L	6.80	995.6	ug/L	6.80	0.68%
QC value within limits for V 290.880 Recovery = 99.56%								

Zn 206.200†	2857.4	2534 ug/L	22.3	2534 ug/L	22.3	0.88%

QC value within limits for Zn 206.200 Recovery = 101.36%

All analyte(s) passed QC.

Sequence No.: 21 **Autosampler Location: 1**
Sample ID: SEQ-CCB **Date Collected: 12/2/2010 10:06:48 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: SEQ-CCB

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: SEQ-CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2545010.7	103.3	%	0.46				0.44%
Sc Radial	314010.7	106.9	%	1.85				1.73%
Ag 328.068†	29.7	0.4687	ug/L	0.11470	0.4687	ug/L	0.11470	24.47%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	36.0	7.417	ug/L	2.8167	7.417	ug/L	2.8167	37.98%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	1.1	10.31	ug/L	16.908	10.31	ug/L	16.908	163.95%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	0.1	-0.0038	ug/L	0.06472	-0.0038	ug/L	0.06472	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	9.7	0.0328	ug/L	0.04360	0.0328	ug/L	0.04360	132.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	293.5	43.59	ug/L	3.944	43.59	ug/L	3.944	9.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	10.8	3.620	ug/L	2.4250	3.620	ug/L	2.4250	66.98%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	-0.7	-0.2183	ug/L	0.42886	-0.2183	ug/L	0.42886	196.41%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	0.3	0.0632	ug/L	0.79032	0.0632	ug/L	0.79032	>999.9%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	2.5	0.4104	ug/L	0.41482	0.4104	ug/L	0.41482	101.08%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	63.6	0.6323	ug/L	0.24095	0.6323	ug/L	0.24095	38.11%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	3.2	22.91	ug/L	12.274	22.91	ug/L	12.274	53.58%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	27.3	15.23	ug/L	3.273	15.23	ug/L	3.273	21.48%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	12.3	1.906	ug/L	0.5964	1.906	ug/L	0.5964	31.30%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	14.2	0.0990	ug/L	0.05490	0.0990	ug/L	0.05490	55.45%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	3.6	6.669	ug/L	1.6684	6.669	ug/L	1.6684	25.02%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-4.5	-0.9482	ug/L	6.89181	-0.9482	ug/L	6.89181	726.85%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-4.3	-2.450	ug/L	1.2014	-2.450	ug/L	1.2014	49.03%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	3.3	7.142	ug/L	0.5874	7.142	ug/L	0.5874	8.23%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	7.5	27.92	ug/L	12.614	27.92	ug/L	12.614	45.18%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-2.1	-23.74	ug/L	7.532	-23.74	ug/L	7.532	31.72%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	6.8	1.828	ug/L	2.1660	1.828	ug/L	2.1660	118.49%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	50.2	0.031	ug/L	0.0073	0.031	ug/L	0.0073	23.58%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	61.9	0.291	ug/L	0.0563	0.291	ug/L	0.0563	19.34%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	-2.6	-10.21	ug/L	9.221	-10.21	ug/L	9.221	90.30%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	-47.6	-1.649	ug/L	0.2487	-1.649	ug/L	0.2487	15.09%
QC value within limits for V 290.880 Recovery = Not calculated								

Zn 206.200†	2.2	1.954 ug/L	1.4929	1.954 ug/L	1.4929	76.41%

QC value within limits for Zn 206.200 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 22
Sample ID: C101105-03 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.4975 g
Dilution: 5X

Autosampler Location: 36
Date Collected: 12/2/2010 10:09:51 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: C101105-03 @5X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: C101105-03 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2569235.6	104.3	%	0.65				0.62%
Sc Radial	319460.2	108.8	%	1.11				1.02%
Ag 328.068†	93.2	3.143	ug/L	0.1047	1.580	mg/kg	0.0526	3.33%
Al 396.153†	51187.9	11010	ug/L	91.3	5534	mg/kg	45.9	0.83%
As 193.696†	1.9	33.69	ug/L	14.935	16.93	mg/kg	7.505	44.32%
Ba 233.527†	2468.0	200.7	ug/L	1.33	100.9	mg/kg	0.67	0.66%
Be 313.107†	526.9	1.755	ug/L	0.0473	0.8821	mg/kg	0.02379	2.70%
B 249.677†	73.2	10.87	ug/L	0.566	5.461	mg/kg	0.2842	5.20%
Ca 317.933†	30013.0	10240	ug/L	101.0	5146	mg/kg	50.8	0.99%
Cd 214.440†	103.2	30.63	ug/L	0.490	15.39	mg/kg	0.246	1.60%
Co 228.616†	241.0	54.21	ug/L	1.128	27.24	mg/kg	0.567	2.08%
Cr 267.716†	81.4	13.43	ug/L	0.175	6.750	mg/kg	0.0881	1.30%
Cu 324.752†	34596.3	346.5	ug/L	3.53	174.1	mg/kg	1.77	1.02%
Fe 238.204†	3579.5	25560	ug/L	270.5	12840	mg/kg	135.9	1.06%
K 766.490†	2374.9	1389	ug/L	17.3	697.9	mg/kg	8.69	1.25%
Mg 285.213†	41032.3	6395	ug/L	49.6	3214	mg/kg	24.9	0.77%
Mn 257.610†	120420.3	862.2	ug/L	9.85	433.2	mg/kg	4.95	1.14%
Mo 202.031†	21.4	40.52	ug/L	1.077	20.36	mg/kg	0.541	2.66%
Na 589.592†	845.9	140.1	ug/L	1.78	70.41	mg/kg	0.895	1.27%
Ni 231.604†	64.2	35.48	ug/L	0.496	17.83	mg/kg	0.249	1.40%
Pb 220.353†	92.2	200.0	ug/L	3.48	100.5	mg/kg	1.75	1.74%
Sb 206.836†	6.9	22.35	ug/L	4.181	11.23	mg/kg	2.101	18.71%
Se 196.026†	-1.6	-14.32	ug/L	71.958	-7.197	mg/kg	36.1596	502.42%
SiO2 251.603†	36186.6	10670	ug/L	129.2	5362	mg/kg	64.9	1.21%
Sr 421.552†	209368.2	129.1	ug/L	0.11	64.89	mg/kg	0.057	0.09%
Ti 334.940†	17926.5	84.35	ug/L	1.461	42.39	mg/kg	0.734	1.73%
Tl 190.801†	-4.0	-20.00	ug/L	6.842	-10.05	mg/kg	3.438	34.21%
V 290.880†	981.2	31.30	ug/L	0.680	15.73	mg/kg	0.342	2.17%
Zn 206.200†	2986.9	2654	ug/L	19.3	1334	mg/kg	9.7	0.73%

Sequence No.: 23
Sample ID: C101105-04 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.5002 g
Dilution: 5X

Autosampler Location: 37
Date Collected: 12/2/2010 10:12:57 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: C101105-04 @5X

Analyte	Back Pressure	Flow
All	114.0 kPa	0.80 L/min

Mean Data: C101105-04 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2443981.5	99.18	%	0.219				0.22%
Sc Radial	307981.4	104.9	%	1.40				1.34%
Ag 328.068†	929.1	17.72	ug/L	0.335	8.857	mg/kg	0.1672	1.89%
Al 396.153†	81663.7	17550	ug/L	304.9	8772	mg/kg	152.4	1.74%
As 193.696†	4.0	116.1	ug/L	24.79	58.00	mg/kg	12.389	21.36%
Ba 233.527†	2858.5	228.3	ug/L	1.38	114.1	mg/kg	0.69	0.60%
Be 313.107†	6121.1	20.61	ug/L	0.111	10.30	mg/kg	0.056	0.54%
B 249.677†	-415.8	-61.75	ug/L	0.622	-30.86	mg/kg	0.311	1.01%
Ca 317.933†	486911.7	166200	ug/L	1044.9	83090	mg/kg	522.2	0.63%
Saturated within auto integration window (code 4)								
Cd 214.440†	365.8	108.3	ug/L	0.20	54.14	mg/kg	0.099	0.18%
Co 228.616†	189.8	39.88	ug/L	0.796	19.93	mg/kg	0.398	2.00%
Cr 267.716†	58.6	-12.61	ug/L	0.355	-6.301	mg/kg	0.1776	2.82%
Cu 324.752†	114961.2	1152	ug/L	2.5	575.8	mg/kg	1.27	0.22%
Fe 238.204†	25677.4	183300	ug/L	4073.8	91630	mg/kg	2036.1	2.22%
K 766.490†	3521.6	1906	ug/L	36.0	952.5	mg/kg	18.01	1.89%
Mg 285.213†	41512.9	6466	ug/L	129.8	3232	mg/kg	64.9	2.01%
Mn 257.610†	6068137.6	43450	ug/L	77.1	21720	mg/kg	38.5	0.18%
Mo 202.031†	26.4	55.54	ug/L	3.729	27.76	mg/kg	1.864	6.71%
Na 589.592†	1318.6	184.1	ug/L	3.45	92.02	mg/kg	1.722	1.87%
Ni 231.604†	81.7	36.70	ug/L	1.079	18.34	mg/kg	0.539	2.94%
Pb 220.353†	550.2	1195	ug/L	7.5	597.2	mg/kg	3.74	0.63%
Sb 206.836†	10.0	24.13	ug/L	18.218	12.06	mg/kg	9.105	75.50%
Se 196.026†	5.2	64.51	ug/L	18.529	32.24	mg/kg	9.261	28.72%
SiO2 251.603†	86137.7	25360	ug/L	239.0	12670	mg/kg	119.5	0.94%
Sr 421.552†	1684675.1	1039	ug/L	1.2	519.3	mg/kg	0.59	0.11%
Ti 334.940†	18549.2	87.28	ug/L	1.391	43.62	mg/kg	0.695	1.59%
Tl 190.801†	0.2	-77.44	ug/L	11.502	-38.71	mg/kg	5.749	14.85%
V 290.880†	1187.4	11.98	ug/L	1.760	5.990	mg/kg	0.8798	14.69%
Zn 206.200†	14916.9	13250	ug/L	56.7	6623	mg/kg	28.3	0.43%

Sequence No.: 24
Sample ID: C101105-05 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.4856 g
Dilution: 5X

Autosampler Location: 38
Date Collected: 12/2/2010 10:16:41 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: C101105-05 @5X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: C101105-05 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2453215.2	99.55	%	0.360				0.36%
Sc Radial	307528.3	104.7	%	1.04				0.99%
Ag 328.068†	2724.9	36.65	ug/L	0.656	18.87	mg/kg	0.338	1.79%
Al 396.153†	151401.6	32580	ug/L	322.8	16770	mg/kg	166.2	0.99%
As 193.696†	-20.9	-11.15	ug/L	67.059	-5.740	mg/kg	34.5239	601.43%
Ba 233.527†	7647.4	613.5	ug/L	9.05	315.9	mg/kg	4.66	1.47%
Be 313.107†	11212.9	37.96	ug/L	0.399	19.54	mg/kg	0.206	1.05%
B 249.677†	-735.7	-109.3	ug/L	1.80	-56.25	mg/kg	0.928	1.65%
Ca 317.933†	87818.6	29860	ug/L	571.0	15370	mg/kg	293.9	1.91%
Cd 214.440†	3086.0	915.1	ug/L	4.54	471.1	mg/kg	2.34	0.50%
Co 228.616†	1572.4	349.1	ug/L	0.74	179.7	mg/kg	0.38	0.21%
Cr 267.716†	91.1	-59.70	ug/L	1.668	-30.74	mg/kg	0.859	2.79%
Cu 324.752†	661412.8	6627	ug/L	23.3	3412	mg/kg	12.0	0.35%
Fe 238.204†	47945.3	342300	ug/L	5468.0	176200	mg/kg	2815.1	1.60%
K 766.490†	1555.5	784.6	ug/L	26.14	403.9	mg/kg	13.46	3.33%
Mg 285.213†	22541.8	3478	ug/L	40.2	1791	mg/kg	20.7	1.16%
Mn 257.610†	18784732.3	134500	ug/L	938.9	69250	mg/kg	483.4	0.70%
Mo 202.031†	224.5	435.4	ug/L	6.07	224.2	mg/kg	3.12	1.39%
Na 589.592†	1960.1	315.6	ug/L	4.89	162.5	mg/kg	2.52	1.55%
Ni 231.604†	490.6	264.0	ug/L	3.12	135.9	mg/kg	1.61	1.18%
Pb 220.353†	272.0	566.3	ug/L	16.12	291.5	mg/kg	8.30	2.85%
Sb 206.836†	38.7	89.85	ug/L	10.480	46.26	mg/kg	5.395	11.66%
Se 196.026†	-26.8	-340.6	ug/L	46.60	-175.3	mg/kg	23.99	13.68%
SiO2 251.603†	428803.3	126300	ug/L	2384.7	65010	mg/kg	1227.7	1.89%
Sr 421.552†	1672902.9	1032	ug/L	2.5	531.2	mg/kg	1.30	0.25%
Ti 334.940†	7875.5	37.06	ug/L	0.137	19.08	mg/kg	0.070	0.37%
Tl 190.801†	9.6	-226.0	ug/L	6.71	-116.3	mg/kg	3.45	2.97%
V 290.880†	1410.4	-13.42	ug/L	0.780	-6.911	mg/kg	0.4015	5.81%
Zn 206.200†	177560.7	157800	ug/L	2061.6	81240	mg/kg	1061.4	1.31%

Sequence No.: 25
Sample ID: C101105-06 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.4834 g
Dilution: 5X

Autosampler Location: 39
Date Collected: 12/2/2010 10:20:37 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: C101105-06 @5X

Analyte	Back Pressure	Flow
All	119.0 kPa	0.80 L/min

Mean Data: C101105-06 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2447574.3	99.32	%	0.752				0.76%
Sc Radial	307409.7	104.7	%	0.12				0.12%
Ag 328.068†	3392.0	40.07	ug/L	0.532	20.73	mg/kg	0.275	1.33%
Al 396.153†	117168.4	25220	ug/L	256.8	13040	mg/kg	132.8	1.02%
As 193.696†	-20.1	-22.48	ug/L	15.823	-11.63	mg/kg	8.183	70.38%
Ba 233.527†	8848.5	712.0	ug/L	4.20	368.2	mg/kg	2.17	0.59%
Be 313.107†	9688.2	32.76	ug/L	0.248	16.94	mg/kg	0.128	0.76%
B 249.677†	-681.1	-101.2	ug/L	2.16	-52.32	mg/kg	1.119	2.14%
Ca 317.933†	90682.0	30830	ug/L	369.6	15950	mg/kg	191.2	1.20%
Cd 214.440†	3134.5	929.6	ug/L	1.40	480.7	mg/kg	0.72	0.15%
Co 228.616†	1856.4	414.8	ug/L	1.93	214.5	mg/kg	1.00	0.46%
Cr 267.716†	113.1	-64.58	ug/L	3.370	-33.40	mg/kg	1.743	5.22%
Cu 324.752†	530658.0	5319	ug/L	14.4	2751	mg/kg	7.5	0.27%
Fe 238.204†	37843.2	270200	ug/L	3028.0	139700	mg/kg	1566.0	1.12%
K 766.490†	2732.3	1376	ug/L	6.7	711.8	mg/kg	3.44	0.48%
Mg 285.213†	20918.2	3205	ug/L	29.8	1658	mg/kg	15.4	0.93%
Mn 257.610†	20610569.2	147600	ug/L	596.3	76330	mg/kg	308.4	0.40%
Mo 202.031†	221.8	429.2	ug/L	3.57	221.9	mg/kg	1.84	0.83%
Na 589.592†	2063.2	352.0	ug/L	3.12	182.0	mg/kg	1.61	0.89%
Ni 231.604†	517.9	282.5	ug/L	2.54	146.1	mg/kg	1.31	0.90%
Pb 220.353†	232.1	471.2	ug/L	12.99	243.7	mg/kg	6.72	2.76%
Sb 206.836†	34.8	79.31	ug/L	37.641	41.02	mg/kg	19.467	47.46%
Se 196.026†	-22.2	-315.7	ug/L	26.39	-163.2	mg/kg	13.65	8.36%
SiO2 251.603†	360540.0	106100	ug/L	955.5	54880	mg/kg	494.2	0.90%
Sr 421.552†	1699618.4	1048	ug/L	1.9	542.1	mg/kg	0.99	0.18%
Ti 334.940†	6520.1	30.68	ug/L	0.204	15.87	mg/kg	0.106	0.67%
Tl 190.801†	9.5	-243.6	ug/L	16.40	-126.0	mg/kg	8.48	6.73%
V 290.880†	1248.4	-12.75	ug/L	0.516	-6.592	mg/kg	0.2666	4.04%
Zn 206.200†	191528.4	170200	ug/L	547.1	88040	mg/kg	282.9	0.32%

Sequence No.: 26
Sample ID: C101105-07 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.5079 g
Dilution: 5X

Autosampler Location: 40
Date Collected: 12/2/2010 10:24:33 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: C101105-07 @5X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: C101105-07 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2453404.2	99.56	%	0.022				0.02%
Sc Radial	308775.6	105.2	%	1.35				1.28%
Ag 328.068†	190.2	26.11	ug/L	0.775	12.85	mg/kg	0.381	2.97%
Al 396.153†	178646.9	38430	ug/L	519.3	18920	mg/kg	255.6	1.35%
As 193.696†	-7.9	77.58	ug/L	27.479	38.19	mg/kg	13.526	35.42%
Ba 233.527†	1853.3	144.6	ug/L	1.29	71.20	mg/kg	0.635	0.89%
Be 313.107†	8727.7	29.55	ug/L	0.360	14.55	mg/kg	0.177	1.22%
B 249.677†	-556.1	-82.60	ug/L	4.557	-40.66	mg/kg	2.243	5.52%
Ca 317.933†	77696.8	26480	ug/L	558.1	13030	mg/kg	274.7	2.11%
Cd 214.440†	978.2	289.9	ug/L	1.17	142.7	mg/kg	0.57	0.40%
Co 228.616†	169.3	30.54	ug/L	0.873	15.03	mg/kg	0.430	2.86%
Cr 267.716†	98.0	13.85	ug/L	0.373	6.816	mg/kg	0.1836	2.69%
Cu 324.752†	689616.0	6905	ug/L	10.4	3399	mg/kg	5.1	0.15%
Fe 238.204†	56076.1	400400	ug/L	7861.5	197100	mg/kg	3869.6	1.96%
K 766.490†	2827.7	1756	ug/L	34.9	864.2	mg/kg	17.16	1.99%
Mg 285.213†	31007.2	4886	ug/L	96.6	2405	mg/kg	47.5	1.98%
Mn 257.610†	1811713.2	12970	ug/L	11.4	6386	mg/kg	5.6	0.09%
Mo 202.031†	41.0	87.68	ug/L	4.657	43.16	mg/kg	2.292	5.31%
Na 589.592†	870.7	69.52	ug/L	3.988	34.22	mg/kg	1.963	5.74%
Ni 231.604†	112.8	46.53	ug/L	1.376	22.90	mg/kg	0.677	2.96%
Pb 220.353†	615.0	1349	ug/L	20.2	664.1	mg/kg	9.94	1.50%
Sb 206.836†	28.6	65.51	ug/L	5.926	32.25	mg/kg	2.917	9.05%
Se 196.026†	-17.7	-114.6	ug/L	28.41	-56.40	mg/kg	13.985	24.80%
SiO2 251.603†	315032.8	92910	ug/L	956.1	45730	mg/kg	470.6	1.03%
Sr 421.552†	989107.4	610.0	ug/L	0.79	300.3	mg/kg	0.39	0.13%
Ti 334.940†	13264.5	62.41	ug/L	0.522	30.72	mg/kg	0.257	0.84%
Tl 190.801†	1.8	-51.03	ug/L	4.783	-25.12	mg/kg	2.354	9.37%
V 290.880†	1632.4	4.270	ug/L	2.3590	2.102	mg/kg	1.1611	55.24%
Zn 206.200†	63913.5	56800	ug/L	1074.2	27960	mg/kg	528.8	1.89%

Sequence No.: 27
Sample ID: C101105-08 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.4922 g
Dilution: 5X

Autosampler Location: 41
Date Collected: 12/2/2010 10:28:15 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: C101105-08 @5X

Analyte	Back Pressure	Flow
All	116.0 kPa	0.80 L/min

Mean Data: C101105-08 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2478921.5	100.6	%	0.45				0.45%
Sc Radial	310895.6	105.9	%	0.42				0.39%
Ag 328.068†	2597.2	34.35	ug/L	0.559	17.45	mg/kg	0.284	1.63%
Al 396.153†	135620.9	29180	ug/L	194.8	14820	mg/kg	99.0	0.67%
As 193.696†	-14.4	23.88	ug/L	28.341	12.13	mg/kg	14.395	118.69%
Ba 233.527†	6504.6	521.9	ug/L	5.54	265.1	mg/kg	2.81	1.06%
Be 313.107†	9225.9	31.21	ug/L	0.263	15.85	mg/kg	0.133	0.84%
B 249.677†	-655.4	-97.35	ug/L	2.870	-49.45	mg/kg	1.458	2.95%
Ca 317.933†	78119.4	26560	ug/L	201.0	13490	mg/kg	102.1	0.76%
Cd 214.440†	2378.6	705.3	ug/L	1.04	358.2	mg/kg	0.53	0.15%
Co 228.616†	1419.4	315.6	ug/L	1.35	160.3	mg/kg	0.69	0.43%
Cr 267.716†	99.8	-49.69	ug/L	1.365	-25.24	mg/kg	0.693	2.75%
Cu 324.752†	602537.9	6037	ug/L	28.3	3066	mg/kg	14.4	0.47%
Fe 238.204†	40606.7	289900	ug/L	1282.6	147300	mg/kg	651.5	0.44%
K 766.490†	1868.0	962.7	ug/L	20.26	489.0	mg/kg	10.29	2.10%
Mg 285.213†	32297.5	5001	ug/L	11.3	2540	mg/kg	5.7	0.23%
Mn 257.610†	16562584.1	118600	ug/L	385.3	60240	mg/kg	195.7	0.32%
Mo 202.031†	185.8	361.0	ug/L	7.53	183.4	mg/kg	3.82	2.09%
Na 589.592†	1984.0	325.0	ug/L	3.18	165.1	mg/kg	1.61	0.98%
Ni 231.604†	385.7	206.4	ug/L	4.05	104.8	mg/kg	2.06	1.96%
Pb 220.353†	338.8	713.0	ug/L	7.03	362.1	mg/kg	3.57	0.99%
Sb 206.836†	30.8	70.95	ug/L	9.043	36.04	mg/kg	4.593	12.74%
Se 196.026†	-23.1	-297.3	ug/L	42.88	-151.0	mg/kg	21.78	14.42%
SiO2 251.603†	347533.7	102300	ug/L	959.7	51980	mg/kg	487.4	0.94%
Sr 421.552†	1321709.3	815.1	ug/L	2.29	414.0	mg/kg	1.16	0.28%
Ti 334.940†	13207.9	62.15	ug/L	0.315	31.57	mg/kg	0.160	0.51%
Tl 190.801†	5.9	-205.2	ug/L	9.20	-104.2	mg/kg	4.67	4.48%
V 290.880†	1267.9	-8.865	ug/L	1.3426	-4.503	mg/kg	0.6819	15.15%
Zn 206.200†	146239.8	130000	ug/L	1464.1	66010	mg/kg	743.7	1.13%

Sequence No.: 28
Sample ID: C101105-09 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.5117 g
Dilution: 5X

Autosampler Location: 42
Date Collected: 12/2/2010 10:32:11 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: C101105-09 @5X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: C101105-09 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2505163.8	101.7	%	0.49				0.48%
Sc Radial	313721.9	106.8	%	1.37				1.28%
Ag 328.068†	1521.2	45.54	ug/L	0.322	22.25	mg/kg	0.157	0.71%
Al 396.153†	20460.3	4409	ug/L	49.2	2154	mg/kg	24.0	1.11%
As 193.696†	-1.3	96.64	ug/L	11.028	47.22	mg/kg	5.388	11.41%
Ba 233.527†	712.2	54.93	ug/L	0.782	26.84	mg/kg	0.382	1.42%
Be 313.107†	380.7	0.9148	ug/L	0.02097	0.4470	mg/kg	0.01024	2.29%
B 249.677†	-374.7	-55.66	ug/L	4.450	-27.19	mg/kg	2.174	8.00%
Ca 317.933†	2251.3	759.9	ug/L	11.72	371.3	mg/kg	5.73	1.54%
Cd 214.440†	49.8	14.40	ug/L	0.170	7.034	mg/kg	0.0833	1.18%
Co 228.616†	92.4	14.17	ug/L	0.290	6.923	mg/kg	0.1419	2.05%
Cr 267.716†	19.1	6.680	ug/L	0.2212	3.264	mg/kg	0.1080	3.31%
Cu 324.752†	113399.1	1137	ug/L	2.4	555.3	mg/kg	1.19	0.21%
Fe 238.204†	49013.8	350000	ug/L	2552.1	171000	mg/kg	1246.9	0.73%
K 766.490†	4158.8	2334	ug/L	34.7	1140	mg/kg	17.0	1.49%
Mg 285.213†	10293.2	1665	ug/L	20.0	813.5	mg/kg	9.75	1.20%
Mn 257.610†	73833.2	529.4	ug/L	4.20	258.7	mg/kg	2.05	0.79%
Mo 202.031†	9.4	27.61	ug/L	3.906	13.49	mg/kg	1.908	14.15%
Na 589.592†	421.6	-6.372	ug/L	1.6875	-3.113	mg/kg	0.8245	26.48%
Ni 231.604†	71.1	22.95	ug/L	1.993	11.22	mg/kg	0.974	8.68%
Pb 220.353†	2061.6	4477	ug/L	19.5	2187	mg/kg	9.5	0.44%
Sb 206.836†	16.0	47.57	ug/L	8.267	23.24	mg/kg	4.039	17.38%
Se 196.026†	-19.0	-113.9	ug/L	38.20	-55.64	mg/kg	18.661	33.54%
SiO2 251.603†	16599.6	4931	ug/L	52.1	2409	mg/kg	25.4	1.06%
Sr 421.552†	56218.7	34.67	ug/L	0.038	16.94	mg/kg	0.019	0.11%
Ti 334.940†	9501.4	44.71	ug/L	0.348	21.84	mg/kg	0.170	0.78%
Tl 190.801†	-0.4	-9.548	ug/L	7.1569	-4.665	mg/kg	3.4966	74.96%
V 290.880†	1327.3	6.510	ug/L	0.3329	3.180	mg/kg	0.1626	5.11%
Zn 206.200†	2130.4	1887	ug/L	6.6	921.9	mg/kg	3.20	0.35%

Sequence No.: 29
Sample ID: C101105-10 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.5153 g
Dilution: 5X

Autosampler Location: 43
Date Collected: 12/2/2010 10:36:16 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: C101105-10 @5X

Analyte	Back Pressure	Flow
All	116.0 kPa	0.80 L/min

Mean Data: C101105-10 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2503986.7	101.6	%	0.26				0.26%
Sc Radial	311182.4	106.0	%	0.35				0.33%
Ag 328.068†	688.3	21.06	ug/L	0.319	10.22	mg/kg	0.155	1.51%
Al 396.153†	35942.3	7738	ug/L	40.4	3754	mg/kg	19.6	0.52%
As 193.696†	-2.4	32.21	ug/L	14.282	15.62	mg/kg	6.929	44.35%
Ba 233.527†	540.0	42.34	ug/L	0.533	20.54	mg/kg	0.259	1.26%
Be 313.107†	89.0	0.1006	ug/L	0.04078	0.0488	mg/kg	0.01979	40.54%
B 249.677†	-197.5	-29.33	ug/L	0.958	-14.23	mg/kg	0.465	3.27%
Ca 317.933†	12210.4	4162	ug/L	58.8	2019	mg/kg	28.5	1.41%
Cd 214.440†	19.9	5.747	ug/L	0.7297	2.788	mg/kg	0.3540	12.70%
Co 228.616†	86.7	16.47	ug/L	1.312	7.992	mg/kg	0.6365	7.96%
Cr 267.716†	99.1	17.63	ug/L	0.193	8.552	mg/kg	0.0936	1.09%
Cu 324.752†	57799.4	579.3	ug/L	0.62	281.1	mg/kg	0.30	0.11%
Fe 238.204†	23385.5	167000	ug/L	1804.6	81020	mg/kg	875.5	1.08%
K 766.490†	2916.2	1656	ug/L	5.8	803.3	mg/kg	2.81	0.35%
Mg 285.213†	32641.5	5113	ug/L	25.7	2481	mg/kg	12.5	0.50%
Mn 257.610†	154543.2	1107	ug/L	1.8	537.0	mg/kg	0.86	0.16%
Mo 202.031†	2.8	9.904	ug/L	3.5244	4.805	mg/kg	1.7099	35.59%
Na 589.592†	173.8	-18.03	ug/L	0.559	-8.747	mg/kg	0.2712	3.10%
Ni 231.604†	69.7	31.32	ug/L	1.580	15.19	mg/kg	0.766	5.04%
Pb 220.353†	1414.9	3065	ug/L	17.3	1487	mg/kg	8.4	0.56%
Sb 206.836†	6.9	18.77	ug/L	2.974	9.105	mg/kg	1.4430	15.85%
Se 196.026†	-10.4	-71.59	ug/L	27.848	-34.73	mg/kg	13.511	38.90%
SiO2 251.603†	23034.7	6811	ug/L	6.7	3304	mg/kg	3.2	0.10%
Sr 421.552†	33095.0	20.41	ug/L	0.038	9.902	mg/kg	0.0183	0.18%
Ti 334.940†	8582.0	40.38	ug/L	0.188	19.59	mg/kg	0.091	0.46%
Tl 190.801†	-0.1	-6.327	ug/L	5.0663	-3.070	mg/kg	2.4579	80.07%
V 290.880†	830.7	9.710	ug/L	0.2339	4.711	mg/kg	0.1135	2.41%
Zn 206.200†	827.2	731.7	ug/L	2.37	355.0	mg/kg	1.15	0.32%

Sequence No.: 30
Sample ID: C101105-11 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt: 0.5017 g
Dilution: 5X

Autosampler Location: 44
Date Collected: 12/2/2010 10:38:56 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: C101105-11 @5X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: C101105-11 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2462625.2	99.93	%	0.124				0.12%
Sc Radial	307643.3	104.8	%	0.35				0.33%
Ag 328.068†	-1087.8	26.73	ug/L	0.175	13.32	mg/kg	0.087	0.65%
Al 396.153†	232491.0	50000	ug/L	192.5	24920	mg/kg	95.9	0.39%
As 193.696†	-14.9	110.4	ug/L	35.62	55.03	mg/kg	17.752	32.26%
Ba 233.527†	1034.5	75.98	ug/L	0.877	37.86	mg/kg	0.437	1.15%
Be 313.107†	6715.8	22.27	ug/L	0.132	11.10	mg/kg	0.066	0.59%
B 249.677†	-908.3	-134.9	ug/L	2.56	-67.23	mg/kg	1.275	1.90%
Ca 317.933†	67031.9	22850	ug/L	204.2	11390	mg/kg	101.8	0.89%
Cd 214.440†	211.4	62.06	ug/L	0.904	30.92	mg/kg	0.451	1.46%
Co 228.616†	125.2	13.75	ug/L	0.077	6.853	mg/kg	0.0382	0.56%
Cr 267.716†	126.4	25.38	ug/L	0.688	12.65	mg/kg	0.343	2.71%
Cu 324.752†	573918.8	5748	ug/L	15.3	2864	mg/kg	7.6	0.27%
Fe 238.204†	103833.6	741500	ug/L	4631.9	369500	mg/kg	2308.1	0.62%
K 766.490†	898.7	690.3	ug/L	18.24	344.0	mg/kg	9.09	2.64%
Mg 285.213†	14442.3	2374	ug/L	7.6	1183	mg/kg	3.8	0.32%
Mn 257.610†	861937.7	6173	ug/L	1.3	3076	mg/kg	0.6	0.02%
Mo 202.031†	76.5	164.0	ug/L	2.68	81.74	mg/kg	1.336	1.63%
Na 589.592†	360.6	-81.45	ug/L	4.240	-40.59	mg/kg	2.113	5.21%
Ni 231.604†	118.2	32.63	ug/L	1.586	16.26	mg/kg	0.790	4.86%
Pb 220.353†	786.7	1758	ug/L	18.4	876.1	mg/kg	9.17	1.05%
Sb 206.836†	42.6	115.0	ug/L	10.66	57.32	mg/kg	5.314	9.27%
Se 196.026†	-33.9	-195.1	ug/L	58.73	-97.24	mg/kg	29.266	30.10%
SiO2 251.603†	352097.7	103900	ug/L	494.7	51770	mg/kg	246.5	0.48%
Sr 421.552†	463745.7	286.0	ug/L	0.65	142.5	mg/kg	0.32	0.23%
Ti 334.940†	9997.5	47.04	ug/L	0.669	23.44	mg/kg	0.333	1.42%
Tl 190.801†	6.6	-19.02	ug/L	8.797	-9.476	mg/kg	4.3835	46.26%
V 290.880†	2523.2	2.163	ug/L	1.4711	1.078	mg/kg	0.7330	68.00%
Zn 206.200†	19013.6	16880	ug/L	64.5	8413	mg/kg	32.1	0.38%

Sequence No.: 31
Sample ID: Blank
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 12/2/2010 10:42:42 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Blank

Analyte	Back Pressure	Flow
All	116.0 kPa	0.80 L/min

Mean Data: Blank

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2552927.4	103.6	%	0.27				0.26%
Sc Radial	310287.9	105.7	%	0.83				0.78%
Ag 328.068†	33.4	0.5322	ug/L	0.08541	0.5322	ug/L	0.08541	16.05%
Al 396.153†	48.4	10.06	ug/L	3.741	10.06	ug/L	3.741	37.18%
As 193.696†	1.2	11.40	ug/L	14.098	11.40	ug/L	14.098	123.63%
Ba 233.527†	0.3	0.0241	ug/L	0.06035	0.0241	ug/L	0.06035	250.23%
Be 313.107†	-3.4	-0.0122	ug/L	0.06034	-0.0122	ug/L	0.06034	493.48%
B 249.677†	84.3	12.53	ug/L	0.303	12.53	ug/L	0.303	2.42%
Ca 317.933†	-2.1	-0.7408	ug/L	2.19597	-0.7408	ug/L	2.19597	296.44%
Cd 214.440†	-0.2	-0.0731	ug/L	0.66214	-0.0731	ug/L	0.66214	905.92%
Co 228.616†	0.2	0.0364	ug/L	0.61552	0.0364	ug/L	0.61552	>999.9%
Cr 267.716†	-0.9	-0.1489	ug/L	0.37549	-0.1489	ug/L	0.37549	252.25%
Cu 324.752†	68.8	0.6896	ug/L	0.17084	0.6896	ug/L	0.17084	24.77%
Fe 238.204†	9.4	67.06	ug/L	20.068	67.06	ug/L	20.068	29.92%
K 766.490†	3.2	3.381	ug/L	12.8197	3.381	ug/L	12.8197	379.15%
Mg 285.213†	-0.4	-0.0534	ug/L	0.43184	-0.0534	ug/L	0.43184	808.45%
Mn 257.610†	77.6	0.5544	ug/L	0.08547	0.5544	ug/L	0.08547	15.42%
Mo 202.031†	1.3	2.445	ug/L	1.2638	2.445	ug/L	1.2638	51.69%
Na 589.592†	3.7	0.7438	ug/L	1.18566	0.7438	ug/L	1.18566	159.40%
Ni 231.604†	-5.2	-2.967	ug/L	1.5939	-2.967	ug/L	1.5939	53.73%
Pb 220.353†	1.1	2.395	ug/L	2.0110	2.395	ug/L	2.0110	83.97%
Sb 206.836†	-2.2	-8.363	ug/L	4.7731	-8.363	ug/L	4.7731	57.07%
Se 196.026†	-1.0	-11.97	ug/L	20.822	-11.97	ug/L	20.822	174.00%
SiO2 251.603†	1358.8	400.5	ug/L	25.15	400.5	ug/L	25.15	6.28%
Sr 421.552†	-35.1	-0.022	ug/L	0.0173	-0.022	ug/L	0.0173	80.09%
Ti 334.940†	2.7	0.013	ug/L	0.0027	0.013	ug/L	0.0027	21.44%
Tl 190.801†	-1.5	-5.882	ug/L	12.2894	-5.882	ug/L	12.2894	208.94%
V 290.880†	-67.5	-2.387	ug/L	0.5812	-2.387	ug/L	0.5812	24.35%
Zn 206.200†	10.2	9.066	ug/L	1.5129	9.066	ug/L	1.5129	16.69%

Sequence No.: 32
Sample ID: SEQ-CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/2/2010 10:45:46 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCV

Analyte	Back Pressure	Flow
All	117.0 kPa	0.80 L/min

Mean Data: SEQ-CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2525184.9	102.5	%	0.45				0.44%
Sc Radial	311237.6	106.0	%	0.11				0.10%
Ag 328.068†	15832.1	255.5	ug/L	2.20	255.5	ug/L	2.20	0.86%
QC value within limits for Ag 328.068 Recovery = 102.20%								
Al 396.153†	58419.9	12570	ug/L	84.0	12570	ug/L	84.0	0.67%
QC value within limits for Al 396.153 Recovery = 100.58%								
As 193.696†	255.5	2511	ug/L	39.8	2511	ug/L	39.8	1.58%
QC value within limits for As 193.696 Recovery = 100.45%								
Ba 233.527†	6155.0	499.5	ug/L	7.64	499.5	ug/L	7.64	1.53%
QC value within limits for Ba 233.527 Recovery = 99.89%								
Be 313.107†	147378.2	509.7	ug/L	0.42	509.7	ug/L	0.42	0.08%
QC value within limits for Be 313.107 Recovery = 101.93%								
B 249.677†	33686.4	5004	ug/L	32.1	5004	ug/L	32.1	0.64%
QC value within limits for B 249.677 Recovery = 100.07%								
Ca 317.933†	36680.7	12470	ug/L	47.0	12470	ug/L	47.0	0.38%
QC value within limits for Ca 317.933 Recovery = 99.72%								
Cd 214.440†	1679.0	498.1	ug/L	3.02	498.1	ug/L	3.02	0.61%
QC value within limits for Cd 214.440 Recovery = 99.62%								
Co 228.616†	2201.4	498.7	ug/L	3.74	498.7	ug/L	3.74	0.75%
QC value within limits for Co 228.616 Recovery = 99.74%								
Cr 267.716†	14985.9	2470	ug/L	27.4	2470	ug/L	27.4	1.11%
QC value within limits for Cr 267.716 Recovery = 98.79%								
Cu 324.752†	101125.9	1013	ug/L	0.7	1013	ug/L	0.7	0.07%
QC value within limits for Cu 324.752 Recovery = 101.34%								
Fe 238.204†	1769.9	12610	ug/L	67.3	12610	ug/L	67.3	0.53%
QC value within limits for Fe 238.204 Recovery = 100.88%								
K 766.490†	43586.9	25170	ug/L	212.1	25170	ug/L	212.1	0.84%
QC value within limits for K 766.490 Recovery = 100.70%								
Mg 285.213†	80962.6	12600	ug/L	71.1	12600	ug/L	71.1	0.56%
QC value within limits for Mg 285.213 Recovery = 100.82%								
Mn 257.610†	141676.9	1013	ug/L	8.8	1013	ug/L	8.8	0.87%
QC value within limits for Mn 257.610 Recovery = 101.35%								
Mo 202.031†	261.7	487.7	ug/L	4.98	487.7	ug/L	4.98	1.02%
QC value within limits for Mo 202.031 Recovery = 97.53%								
Na 589.592†	69165.5	12630	ug/L	86.3	12630	ug/L	86.3	0.68%
QC value within limits for Na 589.592 Recovery = 101.07%								
Ni 231.604†	4360.9	2483	ug/L	13.8	2483	ug/L	13.8	0.55%
QC value within limits for Ni 231.604 Recovery = 99.32%								
Pb 220.353†	1171.0	2517	ug/L	16.6	2517	ug/L	16.6	0.66%
QC value within limits for Pb 220.353 Recovery = 100.67%								
Sb 206.836†	652.8	2397	ug/L	50.3	2397	ug/L	50.3	2.10%
QC value within limits for Sb 206.836 Recovery = 95.90%								
Se 196.026†	222.2	2534	ug/L	26.4	2534	ug/L	26.4	1.04%
QC value within limits for Se 196.026 Recovery = 101.34%								
SiO2 251.603†	34415.1	10130	ug/L	45.4	10130	ug/L	45.4	0.45%
QC value within limits for SiO2 251.603 Recovery = 101.31%								
Sr 421.552†	841711.5	519.1	ug/L	0.44	519.1	ug/L	0.44	0.09%
QC value within limits for Sr 421.552 Recovery = 103.82%								
Ti 334.940†	106429.8	500.8	ug/L	0.41	500.8	ug/L	0.41	0.08%
QC value within limits for Ti 334.940 Recovery = 100.16%								
Tl 190.801†	646.5	2509	ug/L	19.5	2509	ug/L	19.5	0.78%
QC value within limits for Tl 190.801 Recovery = 100.36%								
V 290.880†	27964.5	992.2	ug/L	5.84	992.2	ug/L	5.84	0.59%
QC value within limits for V 290.880 Recovery = 99.22%								

Zn 206.200†	2841.1	2520 ug/L	17.0	2520 ug/L	17.0	0.68%

QC value within limits for Zn 206.200 Recovery = 100.79%

All analyte(s) passed QC.

Sequence No.: 33
Sample ID: SEQ-CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/2/2010 10:48:53 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCB

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: SEQ-CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2519758.4	102.3	%	0.44				0.43%
Sc Radial	309020.5	105.2	%	0.04				0.04%
Ag 328.068†	22.0	0.3500	ug/L	0.07689	0.3500	ug/L	0.07689	21.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	33.2	6.800	ug/L	1.5398	6.800	ug/L	1.5398	22.64%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	1.7	16.30	ug/L	17.486	16.30	ug/L	17.486	107.26%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	-0.4	-0.0456	ug/L	0.13920	-0.0456	ug/L	0.13920	305.12%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	10.0	0.0334	ug/L	0.06119	0.0334	ug/L	0.06119	183.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	297.1	44.13	ug/L	3.882	44.13	ug/L	3.882	8.80%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	4.7	1.473	ug/L	0.9032	1.473	ug/L	0.9032	61.32%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	-1.0	-0.2826	ug/L	0.41922	-0.2826	ug/L	0.41922	148.33%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-1.9	-0.4377	ug/L	0.33371	-0.4377	ug/L	0.33371	76.24%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	0.1	0.0277	ug/L	0.32852	0.0277	ug/L	0.32852	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	90.8	0.9078	ug/L	0.13698	0.9078	ug/L	0.13698	15.09%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	7.3	52.15	ug/L	26.416	52.15	ug/L	26.416	50.65%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	39.4	22.38	ug/L	13.464	22.38	ug/L	13.464	60.16%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	13.8	2.128	ug/L	0.8769	2.128	ug/L	0.8769	41.20%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	26.4	0.1856	ug/L	0.08005	0.1856	ug/L	0.08005	43.13%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	3.5	6.572	ug/L	3.6995	6.572	ug/L	3.6995	56.29%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-25.6	-4.921	ug/L	1.0090	-4.921	ug/L	1.0090	20.50%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-1.7	-0.9544	ug/L	0.74248	-0.9544	ug/L	0.74248	77.80%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	2.9	6.198	ug/L	5.4182	6.198	ug/L	5.4182	87.41%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	9.2	34.33	ug/L	9.883	34.33	ug/L	9.883	28.78%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.4	-15.69	ug/L	15.095	-15.69	ug/L	15.095	96.19%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	226.4	66.64	ug/L	8.767	66.64	ug/L	8.767	13.16%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	74.6	0.046	ug/L	0.0272	0.046	ug/L	0.0272	59.10%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	57.3	0.270	ug/L	0.0365	0.270	ug/L	0.0365	13.55%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	-1.7	-6.614	ug/L	17.5241	-6.614	ug/L	17.5241	264.97%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	-47.4	-1.655	ug/L	0.4214	-1.655	ug/L	0.4214	25.47%
QC value within limits for V 290.880 Recovery = Not calculated								

Zn 206.200†	9.7	8.566 ug/L	1.1098	8.566 ug/L	1.1098	12.96%

QC value within limits for Zn 206.200 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 34
Sample ID: 1011118-SRM1 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 46
Date Collected: 12/2/2010 10:51:56 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1011118-SRM1 @5X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: 1011118-SRM1 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2389816.2	96.98	%	0.894				0.92%
Sc Radial	301214.1	102.6	%	0.17				0.16%
Ag 328.068†	1167.2	20.22	ug/L	0.193	20.22	ug/L	0.193	0.95%
Al 396.153†	1584.2	297.4	ug/L	2.56	297.4	ug/L	2.56	0.86%
As 193.696†	82.6	805.5	ug/L	30.09	805.5	ug/L	30.09	3.73%
Ba 233.527†	59.1	2.771	ug/L	0.1452	2.771	ug/L	0.1452	5.24%
Be 313.107†	5487.8	18.66	ug/L	0.289	18.66	ug/L	0.289	1.55%
B 249.677†	-267.9	-39.80	ug/L	1.559	-39.80	ug/L	1.559	3.92%
Ca 317.933†	510198.0	174200	ug/L	435.3	174200	ug/L	435.3	0.25%
Cd 214.440†	130.8	39.29	ug/L	0.166	39.29	ug/L	0.166	0.42%
Co 228.616†	587.7	133.3	ug/L	2.38	133.3	ug/L	2.38	1.79%
Cr 267.716†	585.6	99.14	ug/L	1.119	99.14	ug/L	1.119	1.13%
Cu 324.752†	638687.3	6390	ug/L	8.3	6390	ug/L	8.3	0.13%
Fe 238.204†	2552.9	18210	ug/L	100.2	18210	ug/L	100.2	0.55%
K 766.490†	94.8	28.36	ug/L	3.858	28.36	ug/L	3.858	13.60%
Mg 285.213†	672652.0	104800	ug/L	256.4	104800	ug/L	256.4	0.24%
Mn 257.610†	28633.3	202.9	ug/L	2.53	202.9	ug/L	2.53	1.24%
Mo 202.031†	26.2	45.18	ug/L	3.212	45.18	ug/L	3.212	7.11%
Na 589.592†	126.5	-25.62	ug/L	2.070	-25.62	ug/L	2.070	8.08%
Ni 231.604†	98.6	53.25	ug/L	1.080	53.25	ug/L	1.080	2.03%
Pb 220.353†	96.7	213.4	ug/L	5.44	213.4	ug/L	5.44	2.55%
Sb 206.836†	60.7	222.9	ug/L	17.97	222.9	ug/L	17.97	8.06%
Se 196.026†	9.6	101.3	ug/L	31.59	101.3	ug/L	31.59	31.19%
SiO2 251.603†	11384.0	3388	ug/L	47.1	3388	ug/L	47.1	1.39%
Sr 421.552†	89873.6	55.43	ug/L	0.260	55.43	ug/L	0.260	0.47%
Ti 334.940†	3668.7	17.26	ug/L	0.857	17.26	ug/L	0.857	4.96%
Tl 190.801†	4.8	11.95	ug/L	16.331	11.95	ug/L	16.331	136.70%
V 290.880†	1924.1	64.96	ug/L	2.325	64.96	ug/L	2.325	3.58%
Zn 206.200†	185.9	163.0	ug/L	0.34	163.0	ug/L	0.34	0.21%

Sequence No.: 35
Sample ID: C101105-05 @25X
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 47
Date Collected: 12/2/2010 10:55:01 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C101105-05 @25X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: C101105-05 @25X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2491701.2	101.1	%	0.43				0.42%
Sc Radial	306885.9	104.5	%	0.48				0.46%
Ag 328.068†	556.8	5.040	ug/L	0.1533	25.20	ug/L	0.767	3.04%
Al 396.153†	29903.5	6437	ug/L	81.0	32180	ug/L	405.1	1.26%
As 193.696†	-3.9	5.726	ug/L	1.4989	28.63	ug/L	7.495	26.18%
Ba 233.527†	1535.4	122.9	ug/L	1.24	614.4	ug/L	6.19	1.01%
Be 313.107†	2294.1	7.751	ug/L	0.0627	38.75	ug/L	0.313	0.81%
B 249.677†	-95.7	-14.22	ug/L	0.235	-71.10	ug/L	1.174	1.65%
Ca 317.933†	17716.4	6019	ug/L	125.9	30090	ug/L	629.5	2.09%
Cd 214.440†	641.7	190.3	ug/L	1.85	951.3	ug/L	9.23	0.97%
Co 228.616†	318.5	70.67	ug/L	0.796	353.3	ug/L	3.98	1.13%
Cr 267.716†	10.0	-20.10	ug/L	0.642	-100.5	ug/L	3.21	3.20%
Cu 324.752†	128125.8	1284	ug/L	2.2	6420	ug/L	10.8	0.17%
Fe 238.204†	9985.8	71290	ug/L	1528.5	356500	ug/L	7642.7	2.14%
K 766.490†	334.0	146.3	ug/L	10.71	731.5	ug/L	53.57	7.32%
Mg 285.213†	4591.2	702.2	ug/L	9.47	3511	ug/L	47.4	1.35%
Mn 257.610†	5353358.4	38330	ug/L	88.9	191700	ug/L	444.3	0.23%
Mo 202.031†	43.8	85.90	ug/L	2.653	429.5	ug/L	13.26	3.09%
Na 589.592†	373.7	62.49	ug/L	6.578	312.4	ug/L	32.89	10.53%
Ni 231.604†	97.8	52.34	ug/L	0.383	261.7	ug/L	1.91	0.73%
Pb 220.353†	54.1	109.9	ug/L	3.48	549.5	ug/L	17.41	3.17%
Sb 206.836†	10.4	27.46	ug/L	5.378	137.3	ug/L	26.89	19.58%
Se 196.026†	-6.5	-89.64	ug/L	14.061	-448.2	ug/L	70.31	15.69%
SiO2 251.603†	88471.1	26040	ug/L	323.5	130200	ug/L	1617.3	1.24%
Sr 421.552†	340703.6	210.1	ug/L	0.17	1051	ug/L	0.8	0.08%
Ti 334.940†	1561.5	7.347	ug/L	0.0914	36.74	ug/L	0.457	1.24%
Tl 190.801†	-1.1	-74.31	ug/L	5.567	-371.6	ug/L	27.84	7.49%
V 290.880†	238.8	-5.795	ug/L	0.4990	-28.98	ug/L	2.495	8.61%
Zn 206.200†	40079.4	35620	ug/L	55.0	178100	ug/L	274.9	0.15%

Sequence No.: 36
Sample ID: C101105-06 @25X
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 47
Date Collected: 12/2/2010 10:58:45 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C101105-06 @25X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

DNR

Mean Data: C101105-06 @25X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2482255.3	100.7	%	0.68				0.67%
Sc Radial	305980.1	104.2	%	0.82				0.78%
Ag 328.068†	564.2	5.184	ug/L	0.1653	25.92	ug/L	0.826	3.19%
Al 396.153†	30102.7	6480	ug/L	77.4	32400	ug/L	387.1	1.19%
As 193.696†	-3.4	10.87	ug/L	23.250	54.36	ug/L	116.252	213.86%
Ba 233.527†	1531.7	122.6	ug/L	0.50	612.9	ug/L	2.50	0.41%
Be 313.107†	2313.6	7.819	ug/L	0.1972	39.09	ug/L	0.986	2.52%
B 249.677†	-127.5	-18.93	ug/L	0.430	-94.66	ug/L	2.152	2.27%
Ca 317.933†	17696.5	6012	ug/L	127.7	30060	ug/L	638.5	2.12%
Cd 214.440†	639.1	189.5	ug/L	1.12	947.5	ug/L	5.60	0.59%
Co 228.616†	325.0	72.12	ug/L	0.999	360.6	ug/L	4.99	1.39%
Cr 267.716†	8.7	-20.27	ug/L	0.730	-101.4	ug/L	3.65	3.60%
Cu 324.752†	128204.2	1285	ug/L	21.9	6424	ug/L	109.3	1.70%
Fe 238.204†	10006.6	71440	ug/L	1560.1	357200	ug/L	7800.5	2.18%
K 766.490†	340.0	149.2	ug/L	1.18	746.0	ug/L	5.91	0.79%
Mg 285.213†	4563.1	697.9	ug/L	7.36	3489	ug/L	36.8	1.05%
Mn 257.610†	5343127.2	38260	ug/L	39.1	191300	ug/L	195.6	0.10%
Mo 202.031†	43.7	85.69	ug/L	3.419	428.4	ug/L	17.10	3.99%
Na 589.592†	358.1	59.59	ug/L	1.383	298.0	ug/L	6.92	2.32%
Ni 231.604†	100.3	53.77	ug/L	0.628	268.8	ug/L	3.14	1.17%
Pb 220.353†	54.2	110.3	ug/L	4.53	551.3	ug/L	22.63	4.11%
Sb 206.836†	10.2	26.93	ug/L	6.727	134.6	ug/L	33.64	24.98%
Se 196.026†	-8.3	-110.0	ug/L	18.23	-550.1	ug/L	91.16	16.57%
SiO2 251.603†	88133.2	25940	ug/L	444.0	129700	ug/L	2219.8	1.71%
Sr 421.552†	341480.3	210.6	ug/L	0.33	1053	ug/L	1.7	0.16%
Ti 334.940†	1556.3	7.323	ug/L	0.0368	36.61	ug/L	0.184	0.50%
Tl 190.801†	1.7	-63.28	ug/L	7.254	-316.4	ug/L	36.27	11.46%
V 290.880†	232.9	-6.020	ug/L	0.6111	-30.10	ug/L	3.055	10.15%
Zn 206.200†	40176.3	35710	ug/L	837.2	178500	ug/L	4185.9	2.34%

Sequence No.: 37
Sample ID: C101105-06 @25X
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 48
Date Collected: 12/2/2010 11:02:28 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C101105-06 @25X

Analyte	Back Pressure	Flow
All	119.0 kPa	0.80 L/min

Mean Data: C101105-06 @25X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2491738.6	101.1	%	0.41				0.41%
Sc Radial	307093.0	104.6	%	0.43				0.42%
Ag 328.068†	671.0	4.666	ug/L	0.1357	23.33	ug/L	0.678	2.91%
Al 396.153†	23424.9	5046	ug/L	49.6	25230	ug/L	248.0	0.98%
As 193.696†	-4.6	-3.855	ug/L	11.8243	-19.27	ug/L	59.122	306.76%
Ba 233.527†	1772.5	142.3	ug/L	0.50	711.4	ug/L	2.49	0.35%
Be 313.107†	1951.1	6.576	ug/L	0.0199	32.88	ug/L	0.100	0.30%
B 249.677†	-125.1	-18.59	ug/L	0.284	-92.93	ug/L	1.418	1.53%

Ca 317.933†	18246.4	6199	ug/L	128.9	30990	ug/L	644.6	2.08%
Cd 214.440†	648.2	192.2	ug/L	0.41	961.1	ug/L	2.04	0.21%
Co 228.616†	382.8	85.51	ug/L	0.516	427.6	ug/L	2.58	0.60%
Cr 267.716†	10.3	-23.53	ug/L	0.242	-117.7	ug/L	1.21	1.03%
Cu 324.752†	102680.6	1029	ug/L	6.3	5147	ug/L	31.6	0.61%
Fe 238.204†	7850.6	56050	ug/L	796.6	280200	ug/L	3982.9	1.42%
K 766.490†	559.7	249.6	ug/L	16.84	1248	ug/L	84.2	6.75%
Mg 285.213†	4211.8	637.1	ug/L	9.45	3186	ug/L	47.2	1.48%
Mn 257.610†	6127013.1	43870	ug/L	41.1	219400	ug/L	205.6	0.09%
Mo 202.031†	42.4	83.21	ug/L	1.758	416.1	ug/L	8.79	2.11%
Na 589.592†	391.4	70.06	ug/L	4.014	350.3	ug/L	20.07	5.73%
Ni 231.604†	102.6	55.62	ug/L	1.450	278.1	ug/L	7.25	2.61%
Pb 220.353†	50.3	99.26	ug/L	10.126	496.3	ug/L	50.63	10.20%
Sb 206.836†	8.0	19.76	ug/L	13.360	98.78	ug/L	66.798	67.62%
Se 196.026†	-7.7	-111.3	ug/L	27.04	-556.7	ug/L	135.22	24.29%
SiO2 251.603†	71571.9	21050	ug/L	389.3	105200	ug/L	1946.6	1.85%
Sr 421.552†	347889.0	214.6	ug/L	0.37	1073	ug/L	1.8	0.17%
Ti 334.940†	1271.4	5.982	ug/L	0.0182	29.91	ug/L	0.091	0.30%
Tl 190.801†	-0.4	-79.05	ug/L	7.349	-395.3	ug/L	36.75	9.30%
V 290.880†	193.4	-6.275	ug/L	0.5385	-31.37	ug/L	2.693	8.58%
Zn 206.200†	42965.0	38190	ug/L	100.0	190900	ug/L	500.1	0.26%

Sequence No.: 38
Sample ID: C101105-08 @25X
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 12/2/2010 11:06:13 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C101105-08 @25X

Analyte	Back Pressure	Flow
All	123.0 kPa	0.80 L/min

Mean Data: C101105-08 @25X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2486204.6	100.9	%	0.06				0.06%
Sc Radial	305872.7	104.2	%	0.51				0.49%
Ag 328.068†	540.6	5.306	ug/L	0.1634	5.306	ug/L	0.1634	3.08%
Al 396.153†	27053.4	5824	ug/L	77.8	5824	ug/L	77.8	1.34%
As 193.696†	-2.4	13.18	ug/L	21.464	13.18	ug/L	21.464	162.83%
Ba 233.527†	1325.4	106.1	ug/L	0.60	106.1	ug/L	0.60	0.57%
Be 313.107†	1893.9	6.396	ug/L	0.0502	6.396	ug/L	0.0502	0.78%
B 249.677†	-120.6	-17.91	ug/L	0.470	-17.91	ug/L	0.470	2.62%
Ca 317.933†	15705.0	5337	ug/L	51.2	5337	ug/L	51.2	0.96%
Cd 214.440†	499.0	147.9	ug/L	1.97	147.9	ug/L	1.97	1.33%
Co 228.616†	289.5	64.33	ug/L	0.529	64.33	ug/L	0.529	0.82%
Cr 267.716†	10.8	-16.63	ug/L	0.172	-16.63	ug/L	0.172	1.03%
Cu 324.752†	117483.9	1177	ug/L	6.2	1177	ug/L	6.2	0.53%
Fe 238.204†	8378.9	59820	ug/L	554.0	59820	ug/L	554.0	0.93%
K 766.490†	418.2	198.3	ug/L	3.52	198.3	ug/L	3.52	1.77%
Mg 285.213†	6504.9	1002	ug/L	16.4	1002	ug/L	16.4	1.63%
Mn 257.610†	4528601.6	32430	ug/L	15.0	32430	ug/L	15.0	0.05%
Mo 202.031†	35.0	68.75	ug/L	0.879	68.75	ug/L	0.879	1.28%
Na 589.592†	386.8	65.10	ug/L	6.675	65.10	ug/L	6.675	10.25%
Ni 231.604†	77.1	41.04	ug/L	0.253	41.04	ug/L	0.253	0.62%
Pb 220.353†	72.8	151.3	ug/L	1.41	151.3	ug/L	1.41	0.93%
Sb 206.836†	9.5	26.42	ug/L	12.602	26.42	ug/L	12.602	47.69%
Se 196.026†	-4.7	-67.36	ug/L	41.345	-67.36	ug/L	41.345	61.38%
SiO2 251.603†	70165.0	20650	ug/L	231.8	20650	ug/L	231.8	1.12%
Sr 421.552†	268774.8	165.8	ug/L	0.26	165.8	ug/L	0.26	0.16%
Ti 334.940†	2692.8	12.67	ug/L	0.204	12.67	ug/L	0.204	1.61%
Tl 190.801†	1.6	-52.74	ug/L	4.319	-52.74	ug/L	4.319	8.19%
V 290.880†	230.8	-3.794	ug/L	0.2098	-3.794	ug/L	0.2098	5.53%
Zn 206.200†	33081.0	29400	ug/L	97.2	29400	ug/L	97.2	0.33%

Sequence No.: 39
Sample ID: C101105-11 @10X
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution: 10X

Autosampler Location: 50
Date Collected: 12/2/2010 11:09:57 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C101105-11 @10X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: C101105-11 @10X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2479673.4	100.6	%	0.70				0.69%
Sc Radial	306206.0	104.3	%	0.59				0.56%
Ag 328.068†	-481.1	15.11	ug/L	0.322	151.1	ug/L	3.22	2.13%
Al 396.153†	115352.8	24810	ug/L	68.9	248100	ug/L	689.5	0.28%
As 193.696†	-5.8	74.63	ug/L	30.871	746.3	ug/L	308.71	41.36%
Ba 233.527†	514.3	37.65	ug/L	0.289	376.5	ug/L	2.89	0.77%
Be 313.107†	3415.5	11.32	ug/L	0.149	113.2	ug/L	1.49	1.32%
B 249.677†	-437.7	-65.01	ug/L	1.594	-650.1	ug/L	15.94	2.45%
Ca 317.933†	33369.9	11380	ug/L	90.3	113800	ug/L	902.7	0.79%
Cd 214.440†	104.3	30.59	ug/L	0.981	305.9	ug/L	9.81	3.20%
Co 228.616†	54.8	4.850	ug/L	0.7612	48.50	ug/L	7.612	15.70%
Cr 267.716†	63.9	12.91	ug/L	1.220	129.1	ug/L	12.20	9.46%
Cu 324.752†	279890.6	2803	ug/L	6.1	28030	ug/L	61.5	0.22%
Fe 238.204†	53685.8	383400	ug/L	2651.4	3834000	ug/L	26513.8	0.69%
K 766.490†	452.0	344.6	ug/L	29.41	3446	ug/L	294.1	8.53%
Mg 285.213†	7226.9	1190	ug/L	9.8	11900	ug/L	98.4	0.83%
Mn 257.610†	436780.1	3128	ug/L	1.5	31280	ug/L	14.6	0.05%
Mo 202.031†	38.2	82.40	ug/L	3.110	824.0	ug/L	31.10	3.77%
Na 589.592†	181.7	-42.16	ug/L	2.420	-421.6	ug/L	24.20	5.74%
Ni 231.604†	59.6	15.93	ug/L	1.082	159.3	ug/L	10.82	6.79%
Pb 220.353†	394.2	882.2	ug/L	1.54	8822	ug/L	15.4	0.17%
Sb 206.836†	22.6	61.80	ug/L	10.086	618.0	ug/L	100.86	16.32%
Se 196.026†	-20.3	-131.3	ug/L	31.95	-1313	ug/L	319.5	24.34%
SiO2 251.603†	175745.6	51860	ug/L	682.8	518600	ug/L	6828.2	1.32%
Sr 421.552†	232676.4	143.5	ug/L	0.25	1435	ug/L	2.5	0.17%
Ti 334.940†	4906.1	23.08	ug/L	0.065	230.8	ug/L	0.65	0.28%
Tl 190.801†	0.6	-20.05	ug/L	7.369	-200.5	ug/L	73.69	36.75%
V 290.880†	1204.4	-2.355	ug/L	0.8766	-23.55	ug/L	8.766	37.22%
Zn 206.200†	9703.1	8616	ug/L	24.1	86160	ug/L	241.4	0.28%

Sequence No.: 40
Sample ID: C101105-06 @50X
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution: 50X

Autosampler Location: 51
Date Collected: 12/2/2010 11:13:39 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C101105-06 @50X

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: C101105-06 @50X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2486021.1	100.9	%	0.39				0.39%
Sc Radial	303367.9	103.3	%	0.10				0.10%
Ag 328.068†	348.3	2.324	ug/L	0.1025	116.2	ug/L	5.12	4.41%
Al 396.153†	11575.3	2493	ug/L	6.3	124700	ug/L	315.8	0.25%
As 193.696†	-2.1	-0.0681	ug/L	20.49116	-3.406	ug/L	1024.5580	>999.9%
Ba 233.527†	876.2	70.30	ug/L	0.322	3515	ug/L	16.1	0.46%
Be 313.107†	969.7	3.267	ug/L	0.0457	163.3	ug/L	2.29	1.40%
B 249.677†	-66.7	-9.911	ug/L	0.1882	-495.6	ug/L	9.41	1.90%
Ca 317.933†	9049.8	3074	ug/L	10.9	153700	ug/L	543.6	0.35%
Cd 214.440†	320.7	95.09	ug/L	1.507	4755	ug/L	75.4	1.58%
Co 228.616†	187.3	41.82	ug/L	0.955	2091	ug/L	47.8	2.28%
Cr 267.716†	0.5	-13.04	ug/L	0.359	-652.0	ug/L	17.95	2.75%
Cu 324.752†	50935.6	510.7	ug/L	1.03	25530	ug/L	51.3	0.20%
Fe 238.204†	3910.9	27920	ug/L	39.4	1396000	ug/L	1968.2	0.14%
K 766.490†	283.1	125.9	ug/L	8.68	6293	ug/L	434.1	6.90%
Mg 285.213†	2082.5	314.4	ug/L	1.60	15720	ug/L	80.1	0.51%
Mn 257.610†	3180910.3	22780	ug/L	26.1	1139000	ug/L	1306.9	0.11%
Mo 202.031†	21.5	42.23	ug/L	1.433	2112	ug/L	71.7	3.39%
Na 589.592†	173.6	31.20	ug/L	1.671	1560	ug/L	83.5	5.35%
Ni 231.604†	49.0	26.52	ug/L	1.102	1326	ug/L	55.1	4.15%
Pb 220.353†	24.8	48.79	ug/L	3.591	2439	ug/L	179.6	7.36%
Sb 206.836†	6.3	18.72	ug/L	5.411	935.9	ug/L	270.54	28.91%
Se 196.026†	-3.7	-54.56	ug/L	40.917	-2728	ug/L	2045.8	75.00%
SiO2 251.603†	36455.9	10720	ug/L	101.4	536000	ug/L	5067.7	0.95%
Sr 421.552†	171574.0	105.8	ug/L	0.12	5291	ug/L	6.2	0.12%
Ti 334.940†	627.2	2.951	ug/L	0.0476	147.6	ug/L	2.38	1.61%
Tl 190.801†	-3.0	-51.58	ug/L	12.774	-2579	ug/L	638.7	24.77%
V 290.880†	70.6	-4.112	ug/L	0.4745	-205.6	ug/L	23.72	11.54%
Zn 206.200†	21420.8	19040	ug/L	80.8	951900	ug/L	4040.4	0.42%

Sequence No.: 41
Sample ID: SEQ-CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/2/2010 11:16:46 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCV

Analyte	Back Pressure	Flow
All	116.0 kPa	0.80 L/min

Mean Data: SEQ-CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2467281.5	100.1	%	0.20				0.20%
Sc Radial	303519.6	103.4	%	0.75				0.73%
Ag 328.068†	15842.8	255.7	ug/L	4.69	255.7	ug/L	4.69	1.83%
QC value within limits for Ag 328.068 Recovery = 102.26%								
Al 396.153†	58532.1	12600	ug/L	52.7	12600	ug/L	52.7	0.42%
QC value within limits for Al 396.153 Recovery = 100.77%								
As 193.696†	256.1	2517	ug/L	19.8	2517	ug/L	19.8	0.79%
QC value within limits for As 193.696 Recovery = 100.67%								
Ba 233.527†	6109.8	495.8	ug/L	9.72	495.8	ug/L	9.72	1.96%
QC value within limits for Ba 233.527 Recovery = 99.15%								
Be 313.107†	147527.0	510.2	ug/L	0.91	510.2	ug/L	0.91	0.18%
QC value within limits for Be 313.107 Recovery = 102.04%								
B 249.677†	33487.2	4974	ug/L	95.7	4974	ug/L	95.7	1.92%
QC value within limits for B 249.677 Recovery = 99.48%								
Ca 317.933†	36710.8	12480	ug/L	30.1	12480	ug/L	30.1	0.24%
QC value within limits for Ca 317.933 Recovery = 99.81%								
Cd 214.440†	1667.8	494.8	ug/L	1.78	494.8	ug/L	1.78	0.36%
QC value within limits for Cd 214.440 Recovery = 98.95%								
Co 228.616†	2213.5	501.4	ug/L	1.07	501.4	ug/L	1.07	0.21%
QC value within limits for Co 228.616 Recovery = 100.29%								
Cr 267.716†	14888.7	2454	ug/L	56.2	2454	ug/L	56.2	2.29%
QC value within limits for Cr 267.716 Recovery = 98.15%								
Cu 324.752†	100931.6	1011	ug/L	3.7	1011	ug/L	3.7	0.37%
QC value within limits for Cu 324.752 Recovery = 101.14%								
Fe 238.204†	1780.8	12690	ug/L	138.6	12690	ug/L	138.6	1.09%
QC value within limits for Fe 238.204 Recovery = 101.51%								
K 766.490†	43506.1	25130	ug/L	66.9	25130	ug/L	66.9	0.27%
QC value within limits for K 766.490 Recovery = 100.51%								
Mg 285.213†	81114.9	12630	ug/L	39.4	12630	ug/L	39.4	0.31%
QC value within limits for Mg 285.213 Recovery = 101.01%								
Mn 257.610†	141297.9	1011	ug/L	17.5	1011	ug/L	17.5	1.73%
QC value within limits for Mn 257.610 Recovery = 101.07%								
Mo 202.031†	263.0	490.0	ug/L	3.39	490.0	ug/L	3.39	0.69%
QC value within limits for Mo 202.031 Recovery = 97.99%								
Na 589.592†	69056.2	12610	ug/L	33.0	12610	ug/L	33.0	0.26%
QC value within limits for Na 589.592 Recovery = 100.91%								
Ni 231.604†	4343.7	2473	ug/L	7.9	2473	ug/L	7.9	0.32%
QC value within limits for Ni 231.604 Recovery = 98.93%								
Pb 220.353†	1170.7	2516	ug/L	7.8	2516	ug/L	7.8	0.31%
QC value within limits for Pb 220.353 Recovery = 100.65%								
Sb 206.836†	650.1	2387	ug/L	6.0	2387	ug/L	6.0	0.25%
QC value within limits for Sb 206.836 Recovery = 95.49%								
Se 196.026†	222.1	2533	ug/L	50.0	2533	ug/L	50.0	1.97%
QC value within limits for Se 196.026 Recovery = 101.33%								
SiO2 251.603†	34391.2	10120	ug/L	154.2	10120	ug/L	154.2	1.52%
QC value within limits for SiO2 251.603 Recovery = 101.24%								
Sr 421.552†	844390.9	520.8	ug/L	0.78	520.8	ug/L	0.78	0.15%
QC value within limits for Sr 421.552 Recovery = 104.15%								
Ti 334.940†	105994.8	498.7	ug/L	0.82	498.7	ug/L	0.82	0.17%
QC value within limits for Ti 334.940 Recovery = 99.75%								
Tl 190.801†	640.6	2486	ug/L	10.1	2486	ug/L	10.1	0.41%
QC value within limits for Tl 190.801 Recovery = 99.44%								
V 290.880†	27704.7	982.9	ug/L	19.13	982.9	ug/L	19.13	1.95%
QC value within limits for V 290.880 Recovery = 98.29%								

Zn 206.200†	2836.2	2515 ug/L	14.6	2515 ug/L	14.6	0.58%

QC value within limits for Zn 206.200 Recovery = 100.61%

All analyte(s) passed QC.

Sequence No.: 42
Sample ID: SEQ-CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/2/2010 11:19:53 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCB

Analyte	Back Pressure	Flow
All	115.0 kPa	0.80 L/min

Mean Data: SEQ-CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2511082.4	101.9	%	0.47				0.46%
Sc Radial	303470.6	103.3	%	0.74				0.71%
Ag 328.068†	33.3	0.5298	ug/L	0.15915	0.5298	ug/L	0.15915	30.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	27.1	5.482	ug/L	1.7710	5.482	ug/L	1.7710	32.31%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	0.9	8.849	ug/L	22.5499	8.849	ug/L	22.5499	254.84%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	0.7	0.0431	ug/L	0.07569	0.0431	ug/L	0.07569	175.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-7.7	-0.0279	ug/L	0.03928	-0.0279	ug/L	0.03928	140.59%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	295.4	43.87	ug/L	3.835	43.87	ug/L	3.835	8.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	5.4	1.712	ug/L	2.2515	1.712	ug/L	2.2515	131.54%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	0.1	0.0369	ug/L	0.28134	0.0369	ug/L	0.28134	761.76%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-0.8	-0.1740	ug/L	0.39736	-0.1740	ug/L	0.39736	228.34%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-0.2	-0.0297	ug/L	0.51650	-0.0297	ug/L	0.51650	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	92.1	0.9211	ug/L	0.06553	0.9211	ug/L	0.06553	7.11%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	6.5	46.50	ug/L	12.505	46.50	ug/L	12.505	26.89%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	52.9	30.28	ug/L	20.092	30.28	ug/L	20.092	66.36%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	10.0	1.536	ug/L	0.5579	1.536	ug/L	0.5579	36.31%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	42.4	0.2996	ug/L	0.06662	0.2996	ug/L	0.06662	22.24%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	3.5	6.540	ug/L	1.5150	6.540	ug/L	1.5150	23.16%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-8.8	-1.835	ug/L	4.9794	-1.835	ug/L	4.9794	271.32%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-4.0	-2.283	ug/L	0.7434	-2.283	ug/L	0.7434	32.56%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	3.3	7.061	ug/L	7.4259	7.061	ug/L	7.4259	105.17%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	9.6	35.77	ug/L	8.513	35.77	ug/L	8.513	23.80%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-0.9	-10.20	ug/L	46.485	-10.20	ug/L	46.485	455.59%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	253.1	74.54	ug/L	8.706	74.54	ug/L	8.706	11.68%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	40.7	0.025	ug/L	0.0155	0.025	ug/L	0.0155	61.83%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	54.4	0.256	ug/L	0.0157	0.256	ug/L	0.0157	6.15%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	-3.1	-12.04	ug/L	0.866	-12.04	ug/L	0.866	7.20%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	-79.2	-2.784	ug/L	0.2875	-2.784	ug/L	0.2875	10.33%
QC value within limits for V 290.880 Recovery = Not calculated								

Zn 206.200†	8.1	7.220 ug/L	0.8774	7.220 ug/L	0.8774	12.15%

QC value within limits for Zn 206.200 Recovery = Not calculated

All analyte(s) passed QC.

Perkin Elmer DRC-II ICP-MS

Project(s): Rico-Argentite soil sediment Nov 2010 Date: 12 / 02 / 2010

Work Order(s): C101105 TDF: DG-220 Analyst: Scott VanOversmeier

Batch Preparation Information

Digest / Prep.	Matrix	Batch ID
(TR) / Total / Diss.	Water / (Soil) / Other	1011118

Data Storage

Data File: X:/Metals Data Files/ DG-220_1011118_TRA_120210

Standard Information

Calibration Std. #1: SS-114-048
Prepped By: SV Date: 09/30/10

Calibration Std. #2: SS-114-049
Prepped By: SV Date: 09/30/10

Calibration Std. #3: SS-114-050
Prepped By: SV Date: 09/30/10

ICV **LIMS: 0100107**
Prepped By: SV Date: 09/30/10

CRDL: 1:100 of 0100112 **LIMS: 0100113**
Prepped By: SV Date: 12/02/10

CCV **LIMS: 0100108**
Prepped By: SV Date: 09/30/10

ICSA LIMS: 0100109

ICSAB LIMS: 0100110

Spike Information

Dissolved Spikes

Sample ID: —
Sample ID: —
Sample Vol: 10 mL

Spike
LIMS ID: 0100114 100 uL

Total / Total Rec. Spikes

Sample ID: C101105-01
Sample Vol: 50 mL
PSS2007-220: 500 uL
WW-LFS1 Exp: 05-1-2011
PSS2007-221: 500 uL
WW-LFS2 Exp: 05-1-2011

Tune criteria passed? (Yes) / No

Comments / Maintenance New pump tubing? Y / (N) Cleaned cones? Y / (N)

Reportable Analytes

(Ag) (As) Be (Cd) (Co) (Cr) (Cu) Mn Mo (Ni) (Pb) Sb (Se)
Tl V Zn U Th

Fizlodio

- Copper and Manganese too high for report off ICP-MS → Reported by ICAOE.

Sequence ID: 1012005

Lims Entry (Date / Init): 12/02/10 SV

2 of 2

TLF-06.01	SOP: QAQ-04.00	Eff. Date: 1/17/2007

ESAT Region 8

Analytical Data Review Form

Analyst / Bench Review – Level I

LIMS: C101105	Project: Rio-Argentine soil Nov 2010	
TDF: DG220	Matrix: soil	Analysis: Total Recoverable metals

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☒ Yes ☐ No	Corr. Coef. ≥ 0.995	☒ Yes ☐ No	ICV 90% - 110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRI 70% - 130%	☒ Yes ☐ No	Blk. Spike (BS) / LCS (SRM) In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80% - 120%			☒ Yes ☐ No	Laboratory Duplicate Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	MS / MSD Analyzed
☒ Yes ☐ No	ICSAB Spiked Analytes 80% - 120%			☒ Yes ☐ No	Serial Dilution Analyzed
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90% - 110%	☒ Yes ☐ No	Post-Digest Spike Analyzed for Tot. / Tot. Rec.
☒ Yes ☐ No	QA QC Samples Internal Stds. 60% - 125%			☒ Yes ☐ No	Samples Internal Stds. 60% - 125%

Other obvious data quality issues are identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Analyst:		Date: 12/02/10	

Peer Review of Analytical Analysis – Level II

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☒ Yes ☐ No	Corr. Coef. ≥ 0.995	☒ Yes ☐ No	ICV 90% - 110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRI 70% - 130%	☒ Yes ☐ No	Blk. Spike (BS) / LCS (SRM) In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80% - 120%			☒ Yes ☐ No	Laboratory Duplicate Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	MS / MSD Analyzed
☒ Yes ☐ No	ICSAB Spiked Analytes 80% - 120%			☒ Yes ☐ No	Serial Dilution Analyzed
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90% - 110%	☒ Yes ☐ No	Post-Digest Spike Analyzed for Tot. / Tot. Rec.
☒ Yes ☐ No	QA QC Samples Internal Stds. 60% - 125%			☒ Yes ☐ No	Samples Internal Stds. 60% - 125%

Other obvious data quality issues are identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Peer Reviewer:		Date: 12/2/2010	

PREPARATION BENCH SHEET

1011118

TechLaw, Inc. - ESAT Region 8

12/12/10

Printed: 12/1/2010 10:19:32AM

Matrix: Solid (dry wt basis)

Date Prepared: 11/30/10 08:26 By: SV **Prepared using: ADMIN - 200.2 - TR Metals**

Lab Number	Analysis	EPA Tag ID	Initial (g)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C101105-01 A	CP-MS Tot. Rec. Metals-201	Io Tag Prefix-	0.4911	50						SLSE02	
C101105-02 A	CP-MS Tot. Rec. Metals-201	Io Tag Prefix-	0.501	50						SLSE04	
C101105-03 A	CP-MS Tot. Rec. Metals-201	Io Tag Prefix-	0.4975	50						SLSE05	
C101105-04 A	CP-MS Tot. Rec. Metals-201	Io Tag Prefix-	0.5002	50						SLSE10	
C101105-05 A	CP-MS Tot. Rec. Metals-201	Io Tag Prefix-	0.4856	50						SLSE15	
C101105-06 A	CP-MS Tot. Rec. Metals-201	Io Tag Prefix-	0.4834	50						SLSE15D	
C101105-07 A	CP-MS Tot. Rec. Metals-201	Io Tag Prefix-	0.5079	50						SLSE18-06	
C101105-08 A	CP-MS Tot. Rec. Metals-201	Io Tag Prefix-	0.4922	50						SLSEPP-06	
C101105-09 A	CP-MS Tot. Rec. Metals-201	Io Tag Prefix-	0.5117	50						SLSO01-08	
C101105-10 A	CP-MS Tot. Rec. Metals-201	Io Tag Prefix-	0.5153	50						SLSO02-06	
C101105-11 A	CP-MS Tot. Rec. Metals-201	Io Tag Prefix-	0.5017	50						SLSO13-06	
C101105-01 A	CPOE Tot. Rec Metals-201(	Io Tag Prefix-	0.4911	50						SLSE02	
C101105-02 A	CPOE Tot. Rec Metals-201(	Io Tag Prefix-	0.501	50						SLSE04	
C101105-03 A	CPOE Tot. Rec Metals-201(	Io Tag Prefix-	0.4975	50						SLSE05	
C101105-04 A	CPOE Tot. Rec Metals-201(	Io Tag Prefix-	0.5002	50						SLSE10	
C101105-05 A	CPOE Tot. Rec Metals-201(	Io Tag Prefix-	0.4856	50						SLSE15	
C101105-06 A	CPOE Tot. Rec Metals-201(	Io Tag Prefix-	0.4834	50						SLSE15D	
C101105-07 A	CPOE Tot. Rec Metals-201(	Io Tag Prefix-	0.5079	50						SLSE18-06	
C101105-08 A	CPOE Tot. Rec Metals-201(	Io Tag Prefix-	0.4922	50						SLSEPP-06	
C101105-09 A	CPOE Tot. Rec Metals-201(	Io Tag Prefix-	0.5117	50						SLSO01-08	
C101105-10 A	CPOE Tot. Rec Metals-201(	Io Tag Prefix-	0.5153	50						SLSO02-06	
C101105-11 A	CPOE Tot. Rec Metals-201(	Io Tag Prefix-	0.5017	50						SLSO13-06	
1011118-BLK1	QC		0.5	50		0		0		Blank	

PREPARATION BENCH SHEET

1011118

TechLaw, Inc. - ESAT Region 8

Printed: 12/1/2010 10:19:32AM

Matrix: Solid (dry wt basis)

Date Prepared: 11/30/10 08:26 By: SV **Prepared using: ADMIN - 200.2 - TR Metals**

Lab Number	Analysis	EPA Tag ID	Initial (g)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
1011118-BLK2	QC		0.5	50		0		0		Blank	
1011118-DUP1	QC		0.4968	50		0		0	C101105-01	Duplicate	
1011118-DUP2	QC		0.4968	50		0		0	C101105-01	Duplicate	
1011118-MS1	QC		0.5194	50	0092735	500	0092736	500	C101105-01	Matrix Spike	
1011118-MS2	QC		0.5194	50	0092735	500	0092736	500	C101105-01	Matrix Spike	
1011118-MSD1	QC		0.5002	50	0092735	500	0092736	500	C101105-01	Matrix Spike Dup	
1011118-MSD2	QC		0.5002	50	0092735	500	0092736	500	C101105-01	Matrix Spike Dup	
1011118-PS1	QC		0.4911	50	0100114	500		0	C101105-01	Post Spike	
1011118-PS2	QC		0.4911	50	0100114	500		0	C101105-01	Post Spike	
1011118-SRM1	QC		0.2574	50	5120502	257.4		0		Reference	
1011118-SRM2	QC		0.2574	50	5120502	257.4		0		Reference	

ANALYSIS SEQUENCE

1012005

12/02/10

Instrument: ICPMS-PE DRC-II Sequence Date: 12/02/10 00:00 Printed: 12/2/2010 1:46:38PM

Lab Number	Dilut. Factor	Analysis	STD ID	Sample/Std Name	EPA Tag ID	Source Sple	Comments
1012005-ICV1		QC	0100107	Initial Cal Check		-	
1012005-ICB1		QC		Initial Cal Blank		-	
1012005-CRL1		QC	0100113	MRL Check		-	
1012005-IFA1		QC	0100109	Interference Check A		-	
1012005-IFB1		QC	0100110	Interference Check B		-	
1012005-CCV1		QC	0100108	Calibration Check		-	
1012005-CCB1		QC		Calibration Blank		-	
1011118-BLK2		QC		Blank		-	
C101105-01 A		CP-MS Tot. Rec. Metals-201		SLSE02	No Tag Prefix-A		
1011118-DUP2		QC		Duplicate		C101105-01	
1012005-SRD1		QC		Serial Dilution		C101105-01	
1011118-SRM2		QC		Reference		-	
1011118-MS2		QC		Matrix Spike		C101105-01	
1011118-MSD2		QC		Matrix Spike Dup		C101105-01	
1011118-PS2		QC		Post Spike		C101105-01	
C101105-02 A		CP-MS Tot. Rec. Metals-201		SLSE04	No Tag Prefix-A		
1012005-CCV2		QC	0100108	Calibration Check		-	
1012005-CCB2		QC		Calibration Blank		-	
C101105-03 A		CP-MS Tot. Rec. Metals-201		SLSE05	No Tag Prefix-A		
C101105-04 A		CP-MS Tot. Rec. Metals-201		SLSE10	No Tag Prefix-A		
C101105-05 A		CP-MS Tot. Rec. Metals-201		SLSE15	No Tag Prefix-A		
C101105-06 A		CP-MS Tot. Rec. Metals-201		SLSE15D	No Tag Prefix-A		
C101105-07 A		CP-MS Tot. Rec. Metals-201		SLSE18-06	No Tag Prefix-A		
C101105-08 A		CP-MS Tot. Rec. Metals-201		SLSEPP-06	No Tag Prefix-A		
C101105-09 A		CP-MS Tot. Rec. Metals-201		SLSO01-08	No Tag Prefix-A		
C101105-10 A		CP-MS Tot. Rec. Metals-201		SLSO02-06	No Tag Prefix-A		
C101105-11 A		CP-MS Tot. Rec. Metals-201		SLSO13-06	No Tag Prefix-A		
1012005-CCV3		QC	0100108	Calibration Check		-	
1012005-CCB3		QC		Calibration Blank		-	

Run List

Sample File Name: 1011118_TRA_120210.sam

AS Loc.	Sample ID	Batch Index	Sample Type	Method
1	Blank		Blank	esat2010.mth
2	Standard 1		Standard	esat2010.mth
3	Standard 2		Standard	esat2010.mth
4	Standard 3		Standard	esat2010.mth
5	SEQ-ICV		QC Std	esat2010.mth
1	SEQ-ICB		QC Std	esat2010.mth
26	SEQ-CRL		QC Std	esat2010.mth
7	SEQ-IFA		QC Std	esat2010.mth
8	SEQ-IFB		QC Std	esat2010.mth
6	SEQ-CCV 1		QC Std	esat2010.mth
1	SEQ-CCB 1		QC Std	esat2010.mth
27	1011118-BLK2 @5X	1	Sample	esat2010.mth
28	C101105-01 @50X	2	Sample	esat2010.mth
29	1011118-DUP2 @50X	3	Duplicate of 2	esat2010.mth
30	SEQ-SRD1 @250X	4	Dilution - DF:5 of 2	esat2010.mth
31	1011118-SRM2 @20X	5	Sample	esat2010.mth
32	1011118-MS2 @50X	6	Spike - 2 of 2	esat2010.mth
33	1011118-MSD2 @50X	7	Spike - 2 of 2	esat2010.mth
34	1011118-PS2 @50X	8	Spike - 3 of 2	esat2010.mth
35	C101105-02 @50X	9	Sample	esat2010.mth
36	Blank	10	Sample	esat2010.mth
6	SEQ-CCV 2		QC Std	esat2010.mth
1	SEQ-CCB 2		QC Std	esat2010.mth
37	C101105-03 @~~50X~~ @10X	11	Sample	esat2010.mth
38	C101105-04 @50X	12	Sample	esat2010.mth
39	C101105-05 @50X	13	Sample	esat2010.mth
40	C101105-06 @50X	14	Sample	esat2010.mth
41	C101105-07 @50X	15	Sample	esat2010.mth
42	C101105-08 @50X	16	Sample	esat2010.mth
43	C101105-09 @50X	17	Sample	esat2010.mth
44	C101105-10 @50X	18	Sample	esat2010.mth
45	C101105-11 @50X	19	Sample	esat2010.mth
46	Blank	20	Sample	esat2010.mth
6	SEQ-CCV 3		QC Std	esat2010.mth
1	SEQ-CCB 3		QC Std	esat2010.mth

Instrument Tuning Report

File Name: ESAT tuning 2010.tun
File Path: C:\Elandata\Tuning\ESAT tuning 2010.tun

fv12/02/10

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
C	12.000	12.025	2736	2066	0.749	
Mg	23.985	23.975	5633	2067	0.736	
In	114.904	114.925	27737	2015	0.746	
Ce	139.905	139.925	33820	2003	0.761	
Pb	207.977	208.025	50386	1980	0.755	
U	238.050	238.075	57689	1965	0.749	
Be	9.012	9.025	1992	2070	0.756	
Zn	65.926	65.925	15835	2042	0.742	

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, December 02, 2010 09:15:40
Sample Description:
Method File: C:\Elandata\Method\ESAT Daily Performance 2010.mth
Dataset File: C:\Elandata\DataSet\Default\Daily Performance Check.7577
Tuning File: C:\Elandata\Tuning\ESAT tuning 2010.tun
Optimization File: C:\Elandata\Optimize\ESAT optimization 2010.dac
Dual Detector Mode: Pulse

12/02/10

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	39342.4	39342.412	804.929	2.0
	In	114.9	179700.6	179700.623	906.453	0.5
	U	238.1	85926.5	85926.533	680.235	0.8
⌈>	Ce	139.9	197784.3	197784.298	579.887	0.3
⌊	CeO	155.9	3355.0	0.017	0.000	1.5
⌈>	Ba	137.9	145877.1	145877.072	688.254	0.5
⌊	Ba++	69.0	3946.4	0.027	0.000	1.4
	Bkgd	220.0	5.8	5.800	0.701	12.1
	Bkgd	8.5	13.5	13.467	1.076	8.0

Current Optimization File Data

Current Value	Description
0.82	Nebulizer Gas Flow [NEB]
1.20	Auxiliary Gas Flow
17.00	Plasma Gas Flow
8.00	Lens Voltage
1200.00	ICP RF Power
-1525.00	Analog Stage Voltage
800.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset Std [QRO]
-15.00	Cell Rod Offset Std [CRO]
20.00	Discriminator Threshold
-19.00	Cell Path Voltage Std [CPV]
0.00	RPa
0.25	RPq
0.82	DRC Mode NEB
-8.50	DRC Mode QRO
0.50	DRC Mode CRO
-17.00	DRC Mode CPV
0.00	Cell Gas A
0.00	Cell Gas B

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	41	7.3	3739.1
Co	59	41	8.0	134828.8
In	115	41	8.0	179989.9

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Elandata\Wizard\SmartTune\ESAT Smart Tune 2010.swz

Start Time: 12/2/2010 8:55:11 AM
End Time: 12/2/2010 9:19:22 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (12/12.025), Target/Obtained resolution (0.75/0.749)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.75/0.736)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.75/0.746)
Target/Obtained mass (139.905/139.925), Target/Obtained resolution (0.75/0.761)
Target/Obtained mass (207.977/208.025), Target/Obtained resolution (0.75/0.755)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.75/0.749)
Target/Obtained mass (9.0122/9.025), Target/Obtained resolution (0.75/0.756)
Target/Obtained mass (65.926/65.925), Target/Obtained resolution (0.75/0.742)

Nebulizer Gas Flow [NEB] - [Passed] Optimum value(s): 0.82
Obtained Intensity (Rh 102.905): 168101
Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=3291 / 195298)

Lens Voltage - [Passed] Optimum value(s): 8
Obtained Intensity (Rh 102.905): 188096

AutoLens - [Passed] Optimum value(s): y = 0.007 x + 7.327

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Mg 23.985): 39342
Obtained Intensity (In 114.904): 179701
Obtained Intensity (Bkgd 220): 6
Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=3355 / 197784)
Obtained Formula (Ba++ 68.9525 / Ba 137.905): 0.027 (=3946 / 146436)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Elandata\Wizard\SmartTune\ESAT Smart Tune 2010.swz

Optimization Status

Start Time: 12/2/2010 8:55:11 AM

Mass Calibration and Resolution
Optimization Settings:
Method: C:\Elandata\Method\ESAT Tuning 2010.mth.
Tuning File: C:\Elandata\Tuning\ESAT tuning 2010.tun
Iterations: 6
Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (12/12.025), Target/Obtained resolution (0.75/0.749)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.75/0.736)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.75/0.746)
Target/Obtained mass (139.905/139.925), Target/Obtained resolution (0.75/0.761)
Target/Obtained mass (207.977/208.025), Target/Obtained resolution (0.75/0.755)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.75/0.749)
Target/Obtained mass (9.0122/9.025), Target/Obtained resolution (0.75/0.756)
Target/Obtained mass (65.926/65.925), Target/Obtained resolution (0.75/0.742)
[Passed] Optimum value(s): N/A

Nebulizer Gas Flow [NEB]
Optimization Settings:
Method: C:\Elandata\Method\ESAT Optimize 2010.mth.
Initial Try - Start/End/Step: 0.7/1/0.01.
Intensity Criterion: Rh 102.905 Maximum
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.017

Optimization Results:
Initial Try
Obtained Intensity (Rh 102.905): 168101
Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=3291 / 195298)
[Passed] Optimum value(s): 0.82

Lens Voltage
Optimization Settings:
Method: C:\Elandata\Method\ESAT Optimize 2010.mth.
Initial Try - Start/End/Step: 4/12/0.25.
Intensity Criterion: Rh 102.905 Maximum

Optimization Results:
Initial Try
Obtained Intensity (Rh 102.905): 188096
[Passed] Optimum value(s): 8

AutoLens
Optimization Settings:
Method: C:\Elandata\Method\ESAT AutoLens Calibration 2010.mth.
Initial Try - Start/End/Step: 2/12/0.25.

Optimization Results:
Initial Try
[Passed] Optimum value(s): y = 0.007 x + 7.327

Analyte	Mass	Points	DAC	MaxIntensity
Be	9.012	41	7.25	3739.12
Co	58.933	41	8	134829
In	114.904	41	8	179990

Daily Performance Check
Optimization Settings:
Method: C:\Elandata\Method\ESAT Daily Performance 2010.mth.
Intensity Criterion: Mg 23.985 > 20000
Intensity Criterion: In 114.904 > 150000
Intensity Criterion: Bkgd 220 <= 30
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.03
Formula Criterion: Ba++ 68.9525 / Ba 137.905 <= 0.03

Optimization Results:
Initial Try
Obtained Intensity (Mg 23.985): 39342
Obtained Intensity (In 114.904): 179701
Obtained Intensity (Bkgd 220): 6
Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=3355 / 197784)
Obtained Formula (Ba++ 68.9525 / Ba 137.905): 0.027 (=3946 / 146436)
[Passed] Optimum value(s): N/A

End Time: 12/2/2010 9:19:22 AM

Method 200.8 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, December 02, 2010 10:27:43
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Blank.7591
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	31455.852	6.578				ug/L
	Be	9	16.667	34.641				ug/L
	Al	27	13255.384	3.141				ug/L
>	Sc	45	269855.899	2.284				ug/L
	V	51	3650.938	8.195				ug/L
	Cr	52	11881.295	4.025				ug/L
	Mn	55	837.425	5.282				ug/L
	Co	59	147.208	6.519				ug/L
	Ni	60	107.208	13.921				ug/L
	Cu	65	701.976	4.986				ug/L
	Zn	66	1024.751	1.566				ug/L
>	Ge	72	268407.930	1.659				ug/L
	As	75	95.539	49.753				ug/L
	Se	82	131.335	13.818				ug/L
	Y	89	468902.208	2.868				ug/L
	Mo	98	141.344	13.749				ug/L
	Ag	107	201.337	7.587				ug/L
	Cd	111	218.713	13.588				ug/L
	Cd	114	88.684	3.419				mg/L
>	In	115	338214.058	0.705				ug/L
	Sb	121	90.667	17.693				ug/L
	Ba	135	60.667	3.807				ug/L
>	Tb	159	381101.757	0.785				ug/L
	Ho	165	345879.385	1.392				ug/L
	Tl	205	182.669	7.290				ug/L
	Pb	208	354.671	5.477				ug/L
	Bi	209	135638.566	3.564				ug/L
	Th	232	104.668	9.426				ug/L
	U	238	56.000	21.429				ug/L
	Na	23	43227.731	3.000				mg/L
	Mg	24	3629.055	4.490				mg/L
	K	39	1240717.174	3.918				mg/L
	Ca	44	33188.556	0.840				mg/L
	Fe	54	35563.644	5.468				mg/L
>	Sc-1	45	269855.899	2.284				mg/L
	Kr	83	145.335	8.295				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, December 02, 2010 10:30:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 1.7592
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	32549.280	3.706	32549.280			ug/L
	Be	9	2618.548	0.861	0.080	10.00000	4.67	ug/L
	Al	27	227204.166	3.656	0.784	50.00000	2.36	ug/L
>	Sc	45	272841.490	4.819	272841.490			ug/L
	V	51	110409.470	6.257	0.391	10.00000	4.13	ug/L
	Cr	52	98352.995	3.165	0.317	10.00000	4.24	ug/L
	Mn	55	130745.472	3.695	0.477	10.00000	5.30	ug/L
	Co	59	100730.808	5.295	0.369	10.00000	2.87	ug/L
	Ni	60	21394.402	2.910	0.078	10.00000	2.36	ug/L
	Cu	65	21862.761	1.936	0.078	10.00000	5.69	ug/L
	Zn	66	12970.793	3.980	0.043	10.00000	3.81	ug/L
>	Ge	72	274339.824	0.616	274339.824			ug/L
	As	75	14306.577	2.422	0.052	10.00000	2.74	ug/L
	Se	82	1482.843	4.183	0.005	10.00000	4.11	ug/L
	Y	89	476713.257	2.938	7811.049			ug/L
	Mo	98	39032.640	0.925	0.115	10.00000	1.09	ug/L
	Ag	107	51793.787	2.142	0.153	10.00000	2.61	ug/L
	Cd	111	11951.174	1.382	0.035	10.00000	0.75	ug/L
	Cd	114	25449.136	2.000	0.075	10.00000	2.89	mg/L
>	In	115	337588.664	0.896	337588.664			ug/L
	Sb	121	36624.358	2.067	0.108	10.00000	1.97	ug/L
	Ba	135	9344.984	2.326	0.024	10.00000	2.05	ug/L
>	Tb	159	380028.881	1.387	380028.881			ug/L
	Ho	165	341567.873	1.855	-0.009			ug/L
	Tl	205	49238.529	0.423	0.129	10.00000	1.80	ug/L
	Pb	208	66297.029	0.770	0.174	10.00000	1.86	ug/L
	Bi	209	136368.203	2.403	0.003			ug/L
	Th	232	67710.236	2.085	0.178	10.00000	2.95	ug/L
	U	238	66407.359	4.302	0.175	10.00000	5.69	ug/L
	Na	23	396044.841	2.825	1.292	0.10000	2.27	mg/L
	Mg	24	251892.994	5.943	0.910	0.10000	4.77	mg/L
	K	39	1821214.288	1.279	2.089	0.10000	18.31	mg/L
	Ca	44	58662.036	1.138	0.092	0.10000	11.84	mg/L
	Fe	54	116220.907	1.690	0.295	0.10000	4.48	mg/L
>	Sc-1	45	272841.490	4.819	272841.490			mg/L
	Kr	83	121.335	3.431	-24.001			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, December 02, 2010 10:33:17
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 2.7593
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	31350.463	2.446	31350.463			ug/L
	Be	9	4948.628	4.969	0.157	19.93023	3.01	ug/L
	Al	27	452532.733	3.810	1.637	100.84374	5.69	ug/L
>	Sc	45	268664.021	2.591	268664.021			ug/L
	V	51	215911.947	1.968	0.790	20.04140	3.17	ug/L
	Cr	52	181056.989	2.716	0.630	19.97907	4.35	ug/L
	Mn	55	246954.049	3.226	0.916	19.83804	0.86	ug/L
	Co	59	195275.678	4.358	0.726	19.93836	2.31	ug/L
	Ni	60	41697.974	3.996	0.155	19.96540	2.63	ug/L
	Cu	65	43082.726	3.690	0.158	20.06546	5.85	ug/L
	Zn	66	25698.804	4.723	0.091	20.16564	3.07	ug/L
>	Ge	72	271981.138	1.847	271981.138			ug/L
	As	75	27283.935	2.470	0.100	19.85786	4.37	ug/L
	Se	82	2863.990	3.848	0.010	20.08642	5.56	ug/L
	Y	89	470865.764	1.727	1963.556			ug/L
	Mo	98	78125.202	0.432	0.228	19.96647	1.51	ug/L
	Ag	107	102755.834	0.602	0.300	19.93100	1.33	ug/L
	Cd	111	24305.372	1.457	0.071	20.06009	1.37	ug/L
	Cd	114	51907.009	0.791	0.152	20.04121	1.72	mg/L
>	In	115	341319.990	1.070	341319.990			ug/L
	Sb	121	73085.521	0.815	0.214	19.95188	0.56	ug/L
	Ba	135	18488.640	0.430	0.047	19.87974	1.09	ug/L
>	Tb	159	388535.017	0.664	388535.017			ug/L
	Ho	165	345415.957	1.294	-0.019			ug/L
	Tl	205	96299.614	1.142	0.247	19.82616	0.59	ug/L
	Pb	208	130634.438	3.207	0.335	19.86058	3.64	ug/L
	Bi	209	137831.413	1.386	-0.001			ug/L
	Th	232	132702.581	2.528	0.341	19.83002	1.87	ug/L
	U	238	130304.458	4.086	0.335	19.83212	3.54	ug/L
	Na	23	2982653.515	2.473	10.942	0.99821	1.00	mg/L
	Mg	24	2215849.436	4.087	8.232	0.99896	1.67	mg/L
	K	39	8212565.380	3.348	25.995	1.00195	6.26	mg/L
	Ca	44	284575.089	2.222	0.936	1.00014	2.50	mg/L
	Fe	54	657726.381	1.173	2.318	0.99732	3.12	mg/L
>	Sc-1	45	268664.021	2.591	268664.021			mg/L
	Kr	83	135.335	15.523	-10.000			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: Standard 3

Sample Date/Time: Thursday, December 02, 2010 10:36:05
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 3.7594
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	31880.453	1.820	31880.453			ug/L
	Be	9	26571.041	1.866	0.833	100.25137	1.13	ug/L
	Al	27	2013004.578	3.997	7.660	498.59139	7.17	ug/L
>	Sc	45	261531.614	3.351	261531.614			ug/L
	V	51	1038083.031	4.041	3.956	100.01381	2.02	ug/L
	Cr	52	882818.664	2.357	3.334	100.25739	4.30	ug/L
	Mn	55	1242216.261	0.857	4.750	100.13268	2.77	ug/L
	Co	59	1001954.818	1.871	3.833	100.23748	2.79	ug/L
	Ni	60	211631.512	2.814	0.809	100.19984	3.39	ug/L
	Cu	65	207028.795	1.980	0.790	100.01804	5.18	ug/L
	Zn	66	124238.273	1.872	0.453	100.03849	2.71	ug/L
>	Ge	72	272075.883	4.030	272075.883			ug/L
	As	75	138524.799	3.356	0.509	100.05205	4.42	ug/L
	Se	82	13291.453	1.421	0.048	99.84124	3.03	ug/L
	Y	89	463484.767	2.500	-5417.441			ug/L
	Mo	98	394171.387	3.408	1.175	100.12465	3.91	ug/L
	Ag	107	500054.574	1.763	1.491	99.94595	2.45	ug/L
	Cd	111	115908.414	0.846	0.345	99.90648	0.88	ug/L
	Cd	114	257367.407	3.159	0.767	100.05877	2.17	mg/L
>	In	115	335369.032	1.300	335369.032			ug/L
	Sb	121	364797.935	2.129	1.088	100.06900	2.70	ug/L
	Ba	135	89833.771	1.561	0.236	99.95533	0.64	ug/L
>	Tb	159	379803.821	1.005	379803.821			ug/L
	Ho	165	339121.451	1.231	-0.015			ug/L
	Tl	205	480735.196	2.216	1.266	100.06709	3.11	ug/L
	Pb	208	654123.039	1.021	1.721	100.09120	0.61	ug/L
	Bi	209	133034.914	2.621	-0.006			ug/L
	Th	232	658437.841	0.257	1.733	100.03474	1.17	ug/L
	U	238	662398.940	2.673	1.744	100.14741	2.87	ug/L
	Na	23	31482480.717	2.877	120.238	10.00884	1.45	mg/L
	Mg	24	22944450.560	3.399	87.781	10.00612	4.64	mg/L
	K	39	72792343.675	3.231	274.147	10.00536	6.78	mg/L
	Ca	44	2328446.402	5.389	8.780	9.99336	4.04	mg/L
	Fe	54	6064955.396	2.525	23.089	9.99936	5.98	mg/L
>	Sc-1	45	261531.614	3.351	261531.614			mg/L
	Kr	83	140.002	5.151	-5.333			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Calibration

Analyte	Mass	Correlation Coefficient
Li	6	
Be	9	0.999936
Al	27	0.999913
Sc	45	
V	51	0.999999
Cr	52	0.999934
Mn	55	0.999976
Co	59	0.999943
Ni	60	0.999960
Cu	65	0.999999
Zn	66	0.999992
Ge	72	
As	75	0.999993
Se	82	0.999973
Y	89	
Mo	98	0.999984
Ag	107	0.999996
Cd	111	0.999990
Cd	114	0.999996
In	115	
Sb	121	0.999995
Ba	135	0.999994
Tb	159	
Ho	165	
Tl	205	0.999988
Pb	208	0.999987
Bi	209	
Th	232	0.999992
U	238	0.999972
Na	23	0.999960
Mg	24	0.999981
K	39	0.999984
Ca	44	0.999978
Fe	54	0.999996
Sc-1	45	
Kr	83	

Method 200.8 - Summary Report

Sample ID: SEQ-ICV

Sample Date/Time: Thursday, December 02, 2010 10:38:54
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-ICV.7595
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	32764.367	2.788	32764.367			ug/L
	Be	9	12976.794	1.931	0.396	47.61293	1.08	ug/L
	Al	27	241154.199	5.384	0.826	53.78329	5.05	ug/L
>	Sc	45	275511.733	3.033	275511.733			ug/L
	V	51	525932.558	2.378	1.896	47.93273	1.43	ug/L
	Cr	52	441786.302	1.176	1.560	46.91935	3.13	ug/L
	Mn	55	605189.150	1.378	2.194	46.26190	2.02	ug/L
	Co	59	485422.719	4.524	1.761	46.05670	2.24	ug/L
	Ni	60	104664.333	4.529	0.379	46.98651	2.97	ug/L
	Cu	65	103944.511	3.352	0.375	47.47345	4.74	ug/L
	Zn	66	59959.619	1.558	0.215	47.42279	0.99	ug/L
>	Ge	72	274282.457	1.796	274282.457			ug/L
	As	75	70603.525	1.950	0.257	50.51368	2.06	ug/L
	Se	82	32486.248	2.624	0.118	243.34798	2.90	ug/L
	Y	89	476678.111	0.831	7775.903			ug/L
	Mo	98	191461.831	2.769	0.547	46.59410	2.16	ug/L
	Ag	107	255897.446	1.265	0.731	49.01086	1.98	ug/L
	Cd	111	57761.155	1.724	0.164	47.62825	1.09	ug/L
	Cd	114	127930.074	0.989	0.365	47.66960	0.21	mg/L
>	In	115	349815.820	0.782	349815.820			ug/L
	Sb	121	181443.565	1.015	0.518	47.70001	1.56	ug/L
	Ba	135	45100.811	0.487	0.116	48.86864	1.26	ug/L
>	Tb	159	389800.336	1.526	389800.336			ug/L
	Ho	165	348545.850	2.150	-0.013			ug/L
	Tl	205	235524.184	2.575	0.604	47.74424	2.75	ug/L
	Pb	208	315384.661	0.129	0.808	46.99893	1.45	ug/L
	Bi	209	136716.637	1.315	-0.005			ug/L
	Th	232	324954.849	2.221	0.833	48.08904	1.05	ug/L
	U	238	315423.097	3.390	0.809	46.45443	2.67	ug/L
	Na	23	16644756.801	1.455	60.273	5.01724	1.60	mg/L
	Mg	24	11616175.850	2.849	42.154	4.80506	1.57	mg/L
	K	39	37569136.799	4.803	131.815	4.81078	5.28	mg/L
	Ca	44	1215048.870	1.304	4.290	4.88330	3.79	mg/L
	Fe	54	3025363.989	1.725	10.856	4.70166	3.74	mg/L
>	Sc-1	45	275511.733	3.033	275511.733			mg/L
	Kr	83	136.668	18.180	-8.667			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		104.160			
	Be	9	95.226				
	Al	27	107.567				
>	Sc	45		102.096			
	V	51	95.865				
	Cr	52	93.839				
	Mn	55	92.524				
	Co	59	92.113				
	Ni	60	93.973				
	Cu	65	94.947				
	Zn	66	94.846				
>	Ge	72		102.189			
	As	75	101.027				
	Se	82	97.339				
	Y	89					
	Mo	98	93.188				
	Ag	107	98.022				
	Cd	111	95.257				
	Cd	114					
>	In	115		103.430			
	Sb	121	95.400				
	Ba	135	97.737				
>	Tb	159		102.282			
	Ho	165					
	Tl	205	95.488				
	Pb	208	93.998				
	Bi	209					
	Th	232	96.178				
	U	238	92.909				
	Na	23	100.345				
	Mg	24	96.101				
	K	39	96.216				
	Ca	44	97.666				
	Fe	54	94.033				
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: SEQ-ICB

Sample Date/Time: Thursday, December 02, 2010 10:41:57
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-ICB.7596
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	29810.432	6.104	29810.432			ug/L
	Be	9	13.333	22.913	-0.000	-0.01014	102.84	ug/L
	Al	27	14158.088	8.130	0.005	0.32943	74.03	ug/L
>	Sc	45	261303.659	3.875	261303.659			ug/L
	V	51	3114.618	7.734	-0.002	-0.04037	64.72	ug/L
	Cr	52	10043.400	2.427	-0.006	-0.16636	42.78	ug/L
	Mn	55	936.773	11.887	0.000	0.01047	115.94	ug/L
	Co	59	243.745	25.752	0.000	0.01005	57.07	ug/L
	Ni	60	129.075	4.810	0.000	0.01210	43.51	ug/L
	Cu	65	1314.676	6.174	0.002	0.30917	20.14	ug/L
	Zn	66	971.409	2.113	-0.000	-0.04459	97.20	ug/L
>	Ge	72	268968.163	3.280	268968.163			ug/L
	As	75	188.466	30.373	0.000	0.06746	60.00	ug/L
	Se	82	160.002	9.922	0.000	0.22042	67.90	ug/L
	Y	89	465278.574	1.800	-3623.634			ug/L
	Mo	98	642.563	6.381	0.002	0.12876	9.88	ug/L
	Ag	107	774.048	5.302	0.002	0.11588	8.92	ug/L
	Cd	111	245.005	6.283	0.000	0.02574	63.80	ug/L
	Cd	114	140.261	8.290	0.000	0.02074	26.15	mg/L
>	In	115	333324.463	1.609	333324.463			ug/L
	Sb	121	397.346	9.422	0.001	0.08498	11.43	ug/L
	Ba	135	74.000	16.878	0.000	0.01506	86.66	ug/L
>	Tb	159	379449.235	1.405	379449.235			ug/L
	Ho	165	338676.195	0.481	-0.015			ug/L
	Tl	205	209.337	11.074	0.000	0.00576	91.82	ug/L
	Pb	208	536.009	12.504	0.000	0.02805	37.87	ug/L
	Bi	209	131788.594	1.823	-0.009			ug/L
	Th	232	192.670	14.170	0.000	0.01349	33.43	ug/L
	U	238	91.334	46.263	0.000	0.00542	120.75	ug/L
	Na	23	46467.454	1.401	0.018	0.00149	50.52	mg/L
	Mg	24	5736.032	19.634	0.009	0.00097	48.65	mg/L
	K	39	1227769.410	3.250	0.108	0.00396	288.08	mg/L
	Ca	44	32313.998	1.435	0.001	0.00093	695.00	mg/L
	Fe	54	35680.764	7.763	0.005	0.00218	276.50	mg/L
>	Sc-1	45	261303.659	3.875	261303.659			mg/L
	Kr	83	121.335	7.790	-24.001			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		94.769			
	Be	9					
	Al	27					
>	Sc	45		96.831			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		100.209			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.554			
	Sb	121					
	Ba	135					
>	Tb	159		99.566			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: SEQ-CRL

Sample Date/Time: Thursday, December 02, 2010 10:44:58
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CRL.7597
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	29691.123	4.599	29691.123			ug/L
	Be	9	54.000	16.973	0.001	0.15580	26.09	ug/L
	Al	27	88403.480	4.012	0.295	19.20651	14.07	ug/L
>	Sc	45	258423.623	7.571	258423.623			ug/L
	V	51	22946.311	4.924	0.076	1.91755	15.16	ug/L
	Cr	52	17919.666	2.795	0.026	0.77187	27.95	ug/L
	Mn	55	2982.519	0.648	0.008	0.17894	11.62	ug/L
	Co	59	1962.269	4.840	0.007	0.18471	5.11	ug/L
	Ni	60	2010.951	2.660	0.007	0.91709	6.10	ug/L
	Cu	65	2527.492	2.118	0.007	0.91394	10.95	ug/L
	Zn	66	6112.989	2.636	0.019	4.14530	2.95	ug/L
>	Ge	72	270727.828	4.467	270727.828			ug/L
	As	75	2666.043	2.565	0.010	1.86670	3.83	ug/L
	Se	82	255.339	11.414	0.000	0.93487	20.11	ug/L
	Y	89	461657.951	0.984	-7244.257			ug/L
	Mo	98	935.422	3.619	0.002	0.20393	4.73	ug/L
	Ag	107	2679.241	1.232	0.007	0.49997	2.35	ug/L
	Cd	111	441.202	5.307	0.001	0.19685	12.36	ug/L
	Cd	114	584.227	13.607	0.001	0.19467	15.18	mg/L
>	In	115	332791.232	1.517	332791.232			ug/L
	Sb	121	3627.719	1.927	0.011	0.97862	3.55	ug/L
	Ba	135	468.018	1.958	0.001	0.44698	2.99	ug/L
>	Tb	159	384894.486	1.184	384894.486			ug/L
	Ho	165	345331.892	0.271	-0.010			ug/L
	Tl	205	1014.082	1.566	0.002	0.17046	2.61	ug/L
	Pb	208	1452.064	3.563	0.003	0.16532	6.11	ug/L
	Bi	209	133142.597	0.768	-0.010			ug/L
	Th	232	5980.195	3.483	0.015	0.88108	4.69	ug/L
	U	238	1223.453	5.565	0.003	0.17417	6.84	ug/L
	Na	23	15400.351	7.297	-0.100	-0.00835	7.25	mg/L
	Mg	24	2583.202	5.610	-0.003	-0.00039	20.86	mg/L
	K	39	1109677.812	2.752	-0.281	-0.01025	162.55	mg/L
	Ca	44	31611.078	1.006	-0.000	-0.00026	3894.09	mg/L
	Fe	54	34690.452	3.896	0.003	0.00131	409.04	mg/L
>	Sc-1	45	258423.623	7.571	258423.623			mg/L
	Kr	83	130.668	11.889	-14.667			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		94.390			
	Be	9	77.898				
	Al	27	96.033				
>	Sc	45		95.764			
	V	51	95.877				
	Cr	52	77.187				
	Mn	55	89.471				
	Co	59	92.357				
	Ni	60	91.709				
	Cu	65	91.394				
	Zn	66	82.906				
>	Ge	72		100.864			
	As	75	93.335				
	Se	82	93.487				
	Y	89					
	Mo	98	101.964				
	Ag	107	99.993				
	Cd	111	98.424				
	Cd	114					
>	In	115		98.397			
	Sb	121	97.862				
	Ba	135	89.396				
>	Tb	159		100.995			
	Ho	165					
	Tl	205	85.228				
	Pb	208	82.662				
	Bi	209					
	Th	232	88.108				
	U	238	87.085				
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: SEQ-IFA

Sample Date/Time: Thursday, December 02, 2010 10:48:00
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-IFA.7598
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	26551.773	6.533	26551.773			ug/L
	Be	9	10.667	43.301	-0.000	-0.01448	169.09	ug/L
	Al	27	31635837.318	7.582	132.598	8631.27172	3.85	ug/L
>	Sc	45	238310.397	4.337	238310.397			ug/L
	V	51	1644.481	45.944	-0.007	-0.16894	44.67	ug/L
	Cr	52	9723.573	5.448	-0.003	-0.09733	21.33	ug/L
	Mn	55	1739.174	30.969	0.004	0.08965	58.77	ug/L
	Co	59	220.820	60.334	0.000	0.01034	148.77	ug/L
	Ni	60	-456.639	14.924	-0.002	-0.28665	12.83	ug/L
	Cu	65	1374.645	2.465	0.003	0.40140	3.37	ug/L
	Zn	66	1891.620	5.611	0.004	0.82726	6.96	ug/L
>	Ge	72	250046.448	4.377	250046.448			ug/L
	As	75	75.369	81.719	-0.000	-0.00928	541.08	ug/L
	Se	82	138.668	0.833	0.000	0.13614	38.86	ug/L
	Y	89	416733.273	0.469	-52168.935			ug/L
	Mo	98	668942.785	1.610	2.293	195.33454	1.80	ug/L
	Ag	107	264.672	2.861	0.000	0.02092	9.23	ug/L
	Cd	111	253.637	11.667	0.000	0.06432	41.60	ug/L
	Cd	114	964.373	7.448	0.003	0.39679	7.01	mg/L
>	In	115	291750.697	1.100	291750.697			ug/L
	Sb	121	219.337	9.359	0.000	0.04456	16.22	ug/L
	Ba	135	214.670	3.272	0.000	0.20021	0.69	ug/L
>	Tb	159	339319.508	3.045	339319.508			ug/L
	Ho	165	302747.645	1.095	-0.015			ug/L
	Tl	205	195.336	8.213	0.000	0.00772	65.60	ug/L
	Pb	208	1010.032	3.187	0.002	0.11902	4.80	ug/L
	Bi	209	127258.568	0.740	0.019			ug/L
	Th	232	133.335	9.165	0.000	0.00682	27.64	ug/L
	U	238	22.000	39.626	-0.000	-0.00469	33.16	ug/L
	Na	23	26361926.950	6.316	110.424	9.19187	3.40	mg/L
	Mg	24	18160467.102	3.777	76.204	8.68639	0.55	mg/L
	K	39	61612907.718	6.274	254.073	9.27273	6.24	mg/L
	Ca	44	2073811.841	4.975	8.578	9.76324	0.74	mg/L
	Fe	54	5143628.785	3.043	21.487	9.30572	6.33	mg/L
>	Sc-1	45	238310.397	4.337	238310.397			mg/L
	Kr	83	138.002	21.932	-7.333			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		84.410			
	Be	9					
	Al	27	86.313				
>	Sc	45		88.310			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		93.159			
	As	75					
	Se	82					
	Y	89					
	Mo	98	97.667				
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		86.262			
	Sb	121					
	Ba	135					
>	Tb	159		89.036			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23	91.919				
	Mg	24	86.864				
	K	39	92.727				
	Ca	44	97.632				
	Fe	54	93.057				
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: SEQ-IFB

Sample Date/Time: Thursday, December 02, 2010 10:51:02
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-IFB.7599
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	23703.577	3.966	23703.577			ug/L
	Be	9	10.000	34.641	-0.000	-0.01249	153.63	ug/L
	Al	27	24918226.032	10.121	114.738	7468.66038	9.23	ug/L
>	Sc	45	216971.435	0.981	216971.435			ug/L
	V	51	-1213.243	272.472	-0.019	-0.48597	79.39	ug/L
	Cr	52	145826.342	3.576	0.628	18.88251	2.90	ug/L
	Mn	55	197128.440	3.859	0.905	19.08704	3.33	ug/L
	Co	59	158822.164	1.164	0.731	19.13157	1.47	ug/L
	Ni	60	35413.535	2.813	0.163	20.15878	1.89	ug/L
	Cu	65	37417.568	1.706	0.170	21.50722	1.50	ug/L
	Zn	66	22157.235	3.367	0.087	19.17791	1.75	ug/L
>	Ge	72	244316.155	2.449	244316.155			ug/L
	As	75	24063.956	1.145	0.098	19.28712	1.37	ug/L
	Se	82	120.001	13.017	0.000	0.00349	3572.94	ug/L
	Y	89	401474.840	1.402	-67427.368			ug/L
	Mo	98	642988.940	1.283	2.255	192.11067	1.21	ug/L
	Ag	107	82567.828	0.566	0.289	19.37655	0.85	ug/L
	Cd	111	19452.840	2.699	0.068	19.57212	3.03	ug/L
	Cd	114	43234.698	1.350	0.151	19.74669	1.64	mg/L
>	In	115	285117.913	0.295	285117.913			ug/L
	Sb	121	161.335	6.240	0.000	0.02740	12.33	ug/L
	Ba	135	335.342	4.858	0.001	0.35424	7.43	ug/L
>	Tb	159	336605.223	1.543	336605.223			ug/L
	Ho	165	302146.354	2.099	-0.010			ug/L
	Tl	205	206.004	28.752	0.000	0.01064	137.67	ug/L
	Pb	208	584.012	13.068	0.001	0.04690	31.05	ug/L
	Bi	209	128959.979	3.594	0.027			ug/L
	Th	232	84.667	15.370	-0.000	-0.00135	148.06	ug/L
	U	238	20.000	17.321	-0.000	-0.00503	10.69	ug/L
	Na	23	21872840.046	0.844	100.658	8.37894	1.48	mg/L
	Mg	24	14674228.903	9.346	67.583	7.70371	8.36	mg/L
	K	39	53191391.662	8.110	240.496	8.77724	7.71	mg/L
	Ca	44	1882144.019	4.294	8.554	9.73642	5.18	mg/L
	Fe	54	4726811.193	1.463	21.654	9.37774	1.20	mg/L
>	Sc-1	45	216971.435	0.981	216971.435			mg/L
	Kr	83	141.335	9.422	-4.000			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		75.355			
	Be	9					
	Al	27	74.687				
>	Sc	45		80.403			
	V	51					
	Cr	52	94.413				
	Mn	55	95.435				
	Co	59	95.658				
	Ni	60	100.794				
	Cu	65	107.536				
	Zn	66	95.890				
>	Ge	72		91.024			
	As	75	96.436				
	Se	82					
	Y	89					
	Mo	98	96.055				
	Ag	107	96.883				
	Cd	111	97.861				
	Cd	114					
>	In	115		84.301			
	Sb	121					
	Ba	135					
>	Tb	159		88.324			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23	83.789				
	Mg	24	77.037				
	K	39	87.772				
	Ca	44	97.364				
	Fe	54	93.777				
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: SEQ-CCV

Sample Date/Time: Thursday, December 02, 2010 10:54:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCV.7600
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	23828.040	3.537	23828.040			ug/L
	Be	9	10044.066	1.986	0.421	50.68948	1.93	ug/L
	Al	27	790943.375	3.687	3.258	212.05530	4.64	ug/L
>	Sc	45	239273.301	2.031	239273.301			ug/L
	V	51	467793.771	3.228	1.941	49.08566	1.89	ug/L
	Cr	52	371671.289	1.676	1.510	45.38937	1.68	ug/L
	Mn	55	530356.057	1.665	2.214	46.68098	3.04	ug/L
	Co	59	443613.752	3.127	1.853	48.46891	1.19	ug/L
	Ni	60	94240.324	1.716	0.394	48.72841	1.99	ug/L
	Cu	65	93869.945	1.692	0.390	49.36327	3.06	ug/L
	Zn	66	56181.385	0.641	0.212	46.82718	0.97	ug/L
>	Ge	72	260201.328	0.436	260201.328			ug/L
	As	75	64915.096	1.006	0.249	48.95123	1.44	ug/L
	Se	82	6182.390	1.501	0.023	48.00438	1.76	ug/L
	Y	89	436601.555	1.667	-32300.653			ug/L
	Mo	98	180947.751	1.173	0.587	49.97883	4.16	ug/L
	Ag	107	231975.849	3.465	0.751	50.37339	1.75	ug/L
	Cd	111	53590.719	1.712	0.173	50.14001	2.75	ug/L
	Cd	114	115687.148	0.960	0.375	48.90326	2.47	mg/L
>	In	115	308513.883	3.028	308513.883			ug/L
	Sb	121	163472.935	3.112	0.530	48.72811	1.34	ug/L
	Ba	135	40704.796	1.001	0.114	48.27747	0.86	ug/L
>	Tb	159	356062.982	0.377	356062.982			ug/L
	Ho	165	322366.449	1.004	-0.002			ug/L
	Tl	205	233323.363	2.687	0.655	51.78093	3.04	ug/L
	Pb	208	312866.816	1.485	0.878	51.03821	1.37	ug/L
	Bi	209	131781.659	1.391	0.014			ug/L
	Th	232	321554.877	1.907	0.903	52.10119	2.22	ug/L
	U	238	318383.489	1.264	0.894	51.33693	0.91	ug/L
	Na	23	11723203.977	2.661	48.841	4.06565	2.68	mg/L
	Mg	24	8201168.026	6.456	34.276	3.90715	7.17	mg/L
	K	39	29631999.418	6.773	119.390	4.35729	9.03	mg/L
	Ca	44	1106343.535	4.354	4.499	5.12125	2.37	mg/L
	Fe	54	2627002.655	0.447	10.850	4.69905	2.16	mg/L
>	Sc-1	45	239273.301	2.031	239273.301			mg/L
	Kr	83	126.668	10.028	-18.667			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		75.751			
	Be	9	101.379				
	Al	27	84.822				
>	Sc	45		88.667			
	V	51	98.171				
	Cr	52	90.779				
	Mn	55	93.362				
	Co	59	96.938				
	Ni	60	97.457				
	Cu	65	98.727				
	Zn	66	93.654				
>	Ge	72		96.942			
	As	75	97.902				
	Se	82	96.009				
	Y	89					
	Mo	98	99.958				
	Ag	107	100.747				
	Cd	111	100.280				
	Cd	114					
>	In	115		91.219			
	Sb	121	97.456				
	Ba	135	96.555				
>	Tb	159		93.430			
	Ho	165					
	Tl	205	103.562				
	Pb	208	102.076				
	Bi	209					
	Th	232	104.202				
	U	238	102.674				
	Na	23	81.313				
	Mg	24	78.143				
	K	39	87.146				
	Ca	44	102.425				
	Fe	54	93.981				
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: SEQ-CCB

Sample Date/Time: Thursday, December 02, 2010 10:57:05
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCB.7601
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	24949.071	3.503	24949.071			ug/L
	Be	9	10.667	10.825	-0.000	-0.01230	44.07	ug/L
	Al	27	11296.222	5.828	-0.001	-0.04092	720.35	ug/L
>	Sc	45	233569.685	5.400	233569.685			ug/L
	V	51	2819.806	9.317	-0.001	-0.03531	122.27	ug/L
	Cr	52	9201.440	3.385	-0.005	-0.13565	75.40	ug/L
	Mn	55	819.823	5.931	0.000	0.00885	91.05	ug/L
	Co	59	195.157	25.541	0.000	0.00782	85.56	ug/L
	Ni	60	93.821	15.408	0.000	0.00037	1329.05	ug/L
	Cu	65	955.317	4.661	0.001	0.18874	6.95	ug/L
	Zn	66	897.398	3.248	-0.000	-0.04385	18.28	ug/L
>	Ge	72	248017.403	4.203	248017.403			ug/L
	As	75	106.159	41.125	0.000	0.01341	239.36	ug/L
	Se	82	124.001	16.369	0.000	0.02441	742.47	ug/L
	Y	89	450808.248	3.194	-18093.960			ug/L
	Mo	98	959.051	4.722	0.003	0.22576	6.73	ug/L
	Ag	107	776.049	12.957	0.002	0.12661	18.51	ug/L
	Cd	111	196.951	8.703	-0.000	-0.00479	371.87	ug/L
	Cd	114	97.834	24.189	0.000	0.00662	150.36	mg/L
>	In	115	312764.380	1.082	312764.380			ug/L
	Sb	121	339.343	10.483	0.001	0.07514	13.58	ug/L
	Ba	135	70.000	39.279	0.000	0.01221	237.04	ug/L
>	Tb	159	369610.298	2.972	369610.298			ug/L
	Ho	165	333131.172	1.254	-0.006			ug/L
	Tl	205	208.004	13.967	0.000	0.00657	86.36	ug/L
	Pb	208	421.339	3.807	0.000	0.01216	4.60	ug/L
	Bi	209	132596.600	2.995	0.003			ug/L
	Th	232	154.002	24.053	0.000	0.00816	66.43	ug/L
	U	238	98.668	40.253	0.000	0.00679	83.66	ug/L
	Na	23	37483.766	7.017	0.000	0.00002	2300.51	mg/L
	Mg	24	4585.074	23.090	0.006	0.00072	86.14	mg/L
	K	39	1042228.862	2.815	-0.127	-0.00465	207.56	mg/L
	Ca	44	34415.160	0.499	0.025	0.02806	33.05	mg/L
	Fe	54	31041.888	4.155	0.001	0.00051	178.21	mg/L
>	Sc-1	45	233569.685	5.400	233569.685			mg/L
	Kr	83	126.001	19.245	-19.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		79.315			
	Be	9					
	Al	27					
>	Sc	45		86.553			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		92.403			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.475			
	Sb	121					
	Ba	135					
>	Tb	159		96.985			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: 1011118-BLK2 @5X

Sample Date/Time: Thursday, December 02, 2010 11:00:07
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1011118-BLK2 @5X.7602
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	24687.365	3.409	24687.365			ug/L
	Be	9	7.333	56.773	-0.000	-0.02840	67.26	ug/L
	Al	27	10170.291	6.403	-0.005	-0.33091	62.88	ug/L
>	Sc	45	231048.784	1.008	231048.784			ug/L
	V	51	-488.172	165.653	-0.016	-0.39503	22.28	ug/L
	Cr	52	9873.795	2.106	-0.001	-0.03899	38.09	ug/L
	Mn	55	2030.602	4.779	0.006	0.11982	6.08	ug/L
	Co	59	124.455	13.776	-0.000	-0.00018	1118.86	ug/L
	Ni	60	39.787	42.119	-0.000	-0.02788	31.95	ug/L
	Cu	65	548.918	4.036	-0.000	-0.02861	33.53	ug/L
	Zn	66	928.069	3.677	-0.000	-0.00124	2505.33	ug/L
>	Ge	72	243577.107	3.999	243577.107			ug/L
	As	75	-148.307	50.852	-0.001	-0.18825	29.83	ug/L
	Se	82	106.668	5.728	-0.000	-0.10436	72.21	ug/L
	Y	89	427035.945	0.702	-41866.263			ug/L
	Mo	98	461.880	8.085	0.001	0.09304	10.32	ug/L
	Ag	107	504.020	8.315	0.001	0.07055	11.70	ug/L
	Cd	111	256.831	8.758	0.000	0.05584	35.02	ug/L
	Cd	114	204.232	3.273	0.000	0.05292	5.77	mg/L
>	In	115	305809.732	0.927	305809.732			ug/L
	Sb	121	142.668	10.141	0.000	0.01828	25.26	ug/L
	Ba	135	22.667	13.478	-0.000	-0.04037	10.20	ug/L
>	Tb	159	356265.945	1.775	356265.945			ug/L
	Ho	165	321620.660	0.865	-0.005			ug/L
	Tl	205	276.673	7.996	0.000	0.02351	20.81	ug/L
	Pb	208	365.338	9.328	0.000	0.00558	116.40	ug/L
	Bi	209	126860.071	1.530	0.000			ug/L
	Th	232	70.667	18.414	-0.000	-0.00440	47.32	ug/L
	U	238	30.000	43.716	-0.000	-0.00358	61.12	ug/L
	Na	23	16359.543	10.627	-0.089	-0.00744	9.26	mg/L
	Mg	24	2780.664	33.339	-0.001	-0.00016	297.67	mg/L
	K	39	985025.373	1.753	-0.334	-0.01220	24.59	mg/L
	Ca	44	33981.474	1.405	0.024	0.02742	7.90	mg/L
	Fe	54	32794.912	7.619	0.010	0.00438	96.64	mg/L
>	Sc-1	45	231048.784	1.008	231048.784			mg/L
	Kr	83	128.668	20.047	-16.667			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		78.483			
	Be	9					
	Al	27					
>	Sc	45		85.619			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		90.749			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.419			
	Sb	121					
	Ba	135					
>	Tb	159		93.483			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: C101105-01 @50X

Sample Date/Time: Thursday, December 02, 2010 11:02:54
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C101105-01 @50X.7603
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	26018.826	5.615	26018.826			ug/L
	Be	9	182.003	17.130	0.006	0.77499	12.78	ug/L
	Al	27	163891.937	3.374	0.629	40.92208	3.19	ug/L
>	Sc	45	241795.583	1.257	241795.583			ug/L
	V	51	4370.364	17.261	0.005	0.11478	67.22	ug/L
	Cr	52	13045.629	5.554	0.010	0.29822	27.36	ug/L
	Mn	55	2694313.354	5.374	11.145	234.96861	6.49	ug/L
	Co	59	-3891.018	8.036	-0.017	-0.43500	7.00	ug/L
	Ni	60	-1784.826	26.627	-0.008	-0.96227	24.54	ug/L
	Cu	65	12025.392	4.101	0.047	5.96800	4.11	ug/L
	Zn	66	1687159.038	1.607	6.275	1385.44193	2.59	ug/L
>	Ge	72	268883.691	4.167	268883.691			ug/L
	As	75	10135.533	6.447	0.037	7.33223	2.56	ug/L
	Se	82	204.003	9.950	0.000	0.55396	19.81	ug/L
	Y	89	483591.725	1.977	14689.517			ug/L
	Mo	98	1423.002	1.823	0.004	0.33396	1.64	ug/L
	Ag	107	345.343	6.663	0.000	0.03068	15.97	ug/L
	Cd	111	7669.482	1.343	0.023	6.58278	1.05	ug/L
	Cd	114	16199.166	1.939	0.049	6.40676	1.67	mg/L
>	In	115	328060.421	0.351	328060.421			ug/L
	Sb	121	612.030	7.359	0.002	0.14698	8.51	ug/L
	Ba	135	5683.917	0.481	0.015	6.32180	1.96	ug/L
>	Tb	159	376310.333	1.962	376310.333			ug/L
	Ho	165	331468.720	0.330	-0.027			ug/L
	Tl	205	7390.369	2.698	0.019	1.51583	4.49	ug/L
	Pb	208	29770.515	1.376	0.078	4.54767	3.05	ug/L
	Bi	209	133037.273	1.720	-0.002			ug/L
	Th	232	66.000	10.926	-0.000	-0.00573	19.17	ug/L
	U	238	926.735	1.745	0.002	0.13302	3.04	ug/L
	Na	23	308521.655	8.269	1.117	0.09296	10.95	mg/L
	Mg	24	975858.075	2.708	4.024	0.45867	4.00	mg/L
	K	39	1433707.076	3.841	1.331	0.04856	12.41	mg/L
	Ca	44	11440834.616	1.343	47.193	53.71619	0.42	mg/L
	Fe	54	276612.256	1.913	1.012	0.43835	1.18	mg/L
>	Sc-1	45	241795.583	1.257	241795.583			mg/L
	Kr	83	130.001	13.674	-15.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		82.715			
	Be	9					
	Al	27					
>	Sc	45		89.602			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		100.177			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.998			
	Sb	121					
	Ba	135					
>	Tb	159		98.743			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: 1011118-DUP2 @50X

Sample Date/Time: Thursday, December 02, 2010 11:05:41
Sample Type: Duplicate of 2
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1011118-DUP2 @50X.7604
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	28168.137	5.713	28168.137			ug/L
	Be	9	198.003	12.121	0.007	0.78334	13.73	ug/L
	Al	27	181733.949	5.428	0.682	44.41393	6.01	ug/L
>	Sc	45	248489.063	0.930	248489.063			ug/L
	V	51	5638.563	11.337	0.009	0.23183	28.80	ug/L
	Cr	52	13699.679	3.733	0.011	0.33417	21.20	ug/L
	Mn	55	3026161.983	2.717	12.178	256.73956	3.62	ug/L
	Co	59	-5019.817	10.304	-0.021	-0.54235	9.22	ug/L
	Ni	60	-2064.610	36.183	-0.009	-1.07626	33.75	ug/L
	Cu	65	12709.721	7.212	0.049	6.14730	7.59	ug/L
	Zn	66	1929622.214	3.158	7.421	1638.47570	3.16	ug/L
>	Ge	72	259993.593	3.729	259993.593			ug/L
	As	75	11982.821	2.211	0.046	8.99428	4.34	ug/L
	Se	82	179.336	4.507	0.000	0.41346	8.27	ug/L
	Y	89	482941.283	2.468	14039.075			ug/L
	Mo	98	1510.648	3.626	0.004	0.35552	5.60	ug/L
	Ag	107	300.674	5.418	0.000	0.02129	10.02	ug/L
	Cd	111	8571.518	1.556	0.025	7.35516	3.57	ug/L
	Cd	114	18316.825	1.012	0.055	7.22392	1.65	mg/L
>	In	115	329282.983	2.565	329282.983			ug/L
	Sb	121	696.706	1.581	0.002	0.17014	4.65	ug/L
	Ba	135	6353.229	2.316	0.017	7.17715	0.79	ug/L
>	Tb	159	370847.210	1.727	370847.210			ug/L
	Ho	165	333850.039	1.244	-0.007			ug/L
	Tl	205	8587.897	1.691	0.023	1.79337	1.57	ug/L
	Pb	208	30054.877	0.752	0.080	4.65946	2.23	ug/L
	Bi	209	129766.005	0.696	-0.006			ug/L
	Th	232	92.001	9.476	-0.000	-0.00152	99.31	ug/L
	U	238	1082.760	0.427	0.003	0.15925	1.55	ug/L
	Na	23	369629.782	5.689	1.327	0.11048	6.08	mg/L
	Mg	24	1049148.876	3.927	4.210	0.47988	4.85	mg/L
	K	39	1522907.785	2.286	1.530	0.05586	5.70	mg/L
	Ca	44	13936014.567	3.226	55.960	63.69449	3.05	mg/L
	Fe	54	297837.427	2.562	1.067	0.46199	2.44	mg/L
>	Sc-1	45	248489.063	0.930	248489.063			mg/L
	Kr	83	124.001	12.177	-21.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		89.548			
	Be	9					1.072
	Al	27					8.184
>	Sc	45		92.082			
	V	51					67.543
	Cr	52					11.371
	Mn	55					8.855
	Co	59					21.967
	Ni	60					11.184
	Cu	65					2.960
	Zn	66					16.735
>	Ge	72		96.865			
	As	75					20.360
	Se	82					29.046
	Y	89					
	Mo	98					6.255
	Ag	107					36.138
	Cd	111					11.083
	Cd	114					11.990
>	In	115		97.359			
	Sb	121					14.607
	Ba	135					12.673
>	Tb	159		97.309			
	Ho	165					
	Tl	205					16.774
	Pb	208					2.428
	Bi	209					
	Th	232					116.079
	U	238					17.948
	Na	23					17.220
	Mg	24					4.520
	K	39					13.969
	Ca	44					16.997
	Fe	54					5.253
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: SEQ-SRD1 @250X

Sample Date/Time: Thursday, December 02, 2010 11:08:28
Sample Type: Dilution - DF:5 of 2
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-SRD1 @250X.7605
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	29260.359	2.353	29260.359			ug/L
	Be	9	45.333	5.094	0.001	0.12264	4.83	ug/L
	Al	27	239993.138	130.491	0.866	56.39691	138.70	ug/L
>	Sc	45	265093.103	1.275	265093.103			ug/L
	V	51	4363.594	16.698	0.003	0.07469	99.66	ug/L
	Cr	52	12348.905	7.913	0.003	0.07791	165.91	ug/L
	Mn	55	610345.407	2.186	2.300	48.48785	3.39	ug/L
	Co	59	-732.477	15.321	-0.003	-0.08646	11.94	ug/L
	Ni	60	-312.406	27.287	-0.002	-0.19497	19.93	ug/L
	Cu	65	2607.658	0.842	0.007	0.91639	2.85	ug/L
	Zn	66	352983.612	3.360	1.316	290.50062	1.69	ug/L
>	Ge	72	267436.944	1.668	267436.944			ug/L
	As	75	2121.272	4.348	0.008	1.48844	3.93	ug/L
	Se	82	149.335	10.825	0.000	0.14404	98.81	ug/L
	Y	89	476785.573	3.107	7883.365			ug/L
	Mo	98	458.026	16.150	0.001	0.07913	24.96	ug/L
	Ag	107	198.003	14.673	-0.000	-0.00092	620.27	ug/L
	Cd	111	1731.358	4.293	0.004	1.28502	4.32	ug/L
	Cd	114	3278.213	1.057	0.009	1.22178	2.12	mg/L
>	In	115	340514.968	0.991	340514.968			ug/L
	Sb	121	184.003	18.827	0.000	0.02512	39.46	ug/L
	Ba	135	1190.781	11.746	0.003	1.23576	12.33	ug/L
>	Tb	159	386435.005	0.194	386435.005			ug/L
	Ho	165	344892.803	1.240	-0.015			ug/L
	Tl	205	1730.907	4.371	0.004	0.31628	4.96	ug/L
	Pb	208	6113.160	2.768	0.015	0.86572	2.83	ug/L
	Bi	209	134814.390	2.480	-0.007			ug/L
	Th	232	100.668	67.968	-0.000	-0.00082	1240.24	ug/L
	U	238	228.671	30.554	0.000	0.02554	40.62	ug/L
	Na	23	94144.659	34.069	0.196	0.01632	64.51	mg/L
	Mg	24	251130.027	30.929	0.936	0.10675	32.81	mg/L
	K	39	1211028.262	4.239	-0.028	-0.00101	866.12	mg/L
	Ca	44	2525560.347	1.449	9.404	10.70379	0.31	mg/L
	Fe	54	85415.718	3.641	0.191	0.08252	8.09	mg/L
>	Sc-1	45	265093.103	1.275	265093.103			mg/L
	Kr	83	128.001	7.813	-17.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		93.020			
	Be	9				20.878	
	Al	27				589.077	
>	Sc	45		98.235			
	V	51				225.360	
	Cr	52				30.630	
	Mn	55				3.179	
	Co	59				-0.624	
	Ni	60				-1.307	
	Cu	65				23.225	
	Zn	66				4.840	
>	Ge	72		99.638			
	As	75				1.500	
	Se	82				30.010	
	Y	89					
	Mo	98				18.471	
	Ag	107				115.026	
	Cd	111				2.395	
	Cd	114				4.649	
>	In	115		100.680			
	Sb	121				14.552	
	Ba	135				2.262	
>	Tb	159		101.399			
	Ho	165					
	Tl	205				4.328	
	Pb	208				4.818	
	Bi	209					
	Th	232				-28.167	
	U	238				3.990	
	Na	23				12.238	
	Mg	24				16.370	
	K	39				110.402	
	Ca	44				0.367	
	Fe	54				5.874	
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: 1011118-SRM2 @20X

Sample Date/Time: Thursday, December 02, 2010 11:11:15
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1011118-SRM2 @20X.7606
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	32706.163	5.039	32706.163			ug/L
	Be	9	1382.821	10.161	0.042	5.01691	5.74	ug/L
	Al	27	307291.068	4.158	1.073	69.83452	6.68	ug/L
>	Sc	45	274159.430	2.352	274159.430			ug/L
	V	51	178278.448	1.003	0.637	16.10810	3.37	ug/L
	Cr	52	235939.636	2.716	0.817	24.56539	4.23	ug/L
	Mn	55	640237.307	5.242	2.334	49.21275	6.99	ug/L
	Co	59	340964.684	3.083	1.243	32.51694	2.81	ug/L
	Ni	60	26073.344	1.979	0.095	11.72765	0.74	ug/L
	Cu	65	3318287.803	1.685	12.104	1532.68072	2.47	ug/L
	Zn	66	48107.787	1.100	0.173	38.23115	1.35	ug/L
>	Ge	72	271839.174	1.285	271839.174			ug/L
	As	75	286198.382	2.109	1.052	206.79217	1.58	ug/L
	Se	82	1320.140	3.344	0.004	9.01170	4.96	ug/L
	Y	89	477894.408	2.190	8992.200			ug/L
	Mo	98	36941.605	0.053	0.112	9.53726	2.06	ug/L
	Ag	107	21397.941	4.091	0.065	4.32587	6.20	ug/L
	Cd	111	12567.897	1.715	0.038	10.88443	3.74	ug/L
	Cd	114	27166.667	1.003	0.082	10.74255	1.46	mg/L
>	In	115	328889.192	2.046	328889.192			ug/L
	Sb	121	207327.532	0.943	0.630	57.99796	3.01	ug/L
	Ba	135	1190.780	3.735	0.003	1.29714	3.17	ug/L
>	Tb	159	369018.924	0.984	369018.924			ug/L
	Ho	165	331438.304	0.987	-0.009			ug/L
	Tl	205	40958.443	0.900	0.111	8.73966	1.90	ug/L
	Pb	208	344208.483	1.348	0.932	54.18720	1.73	ug/L
	Bi	209	227518.545	2.312	0.261			ug/L
	Th	232	599.362	4.199	0.001	0.07787	4.57	ug/L
	U	238	21658.813	2.531	0.059	3.36158	1.64	ug/L
	Na	23	56408.954	3.517	0.046	0.00379	13.77	mg/L
	Mg	24	66348580.704	2.890	241.974	27.58241	0.57	mg/L
	K	39	1269227.085	4.400	0.032	0.00118	610.86	mg/L
	Ca	44	10743178.953	3.557	39.089	44.49193	5.21	mg/L
	Fe	54	2847683.276	3.628	10.262	4.44419	5.27	mg/L
>	Sc-1	45	274159.430	2.352	274159.430			mg/L
	Kr	83	134.001	3.949	-11.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.975			
	Be	9					
	Al	27					
>	Sc	45		101.595			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		101.278			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.243			
	Sb	121					
	Ba	135					
>	Tb	159		96.829			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: 1011118-MS2 @50X

Sample Date/Time: Thursday, December 02, 2010 11:14:02
Sample Type: Spike - 2 of 2
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1011118-MS2 @50X.7607
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	31184.291	2.021	31184.291			ug/L
	Be	9	1174.777	5.795	0.037	4.47475	7.72	ug/L
	Al	27	377117.765	4.079	1.363	88.73937	4.41	ug/L
>	Sc	45	267021.438	0.314	267021.438			ug/L
	V	51	65263.020	3.220	0.231	5.83788	3.55	ug/L
	Cr	52	79766.202	3.541	0.255	7.65861	4.21	ug/L
	Mn	55	3443518.627	3.354	12.893	271.81513	3.34	ug/L
	Co	59	31907.104	1.535	0.119	3.11090	1.30	ug/L
	Ni	60	17344.078	4.385	0.065	7.99307	4.14	ug/L
	Cu	65	38453.357	6.329	0.141	17.90720	6.70	ug/L
	Zn	66	2027148.589	2.000	7.354	1623.59316	3.04	ug/L
>	Ge	72	275631.771	2.844	275631.771			ug/L
	As	75	34805.075	0.719	0.126	24.75211	2.43	ug/L
	Se	82	4172.059	1.853	0.015	30.23822	4.43	ug/L
	Y	89	499917.189	1.677	31014.981			ug/L
	Mo	98	28938.480	3.014	0.085	7.27533	1.81	ug/L
	Ag	107	6931.848	4.831	0.020	1.33789	3.56	ug/L
	Cd	111	12671.549	1.351	0.037	10.69801	2.93	ug/L
	Cd	114	27033.664	1.691	0.080	10.42361	1.31	mg/L
>	In	115	337216.106	1.581	337216.106			ug/L
	Sb	121	52809.530	1.368	0.156	14.38427	0.69	ug/L
	Ba	135	10250.400	1.531	0.027	11.23515	2.15	ug/L
>	Tb	159	383585.370	1.436	383585.370			ug/L
	Ho	165	341947.087	1.027	-0.016			ug/L
	Tl	205	179515.903	2.455	0.468	36.97984	3.72	ug/L
	Pb	208	150485.234	1.067	0.391	22.76258	2.39	ug/L
	Bi	209	129366.526	0.768	-0.019			ug/L
	Th	232	69.334	31.113	-0.000	-0.00539	63.13	ug/L
	U	238	1202.116	3.870	0.003	0.17151	3.50	ug/L
	Na	23	656836.588	1.876	2.300	0.19143	2.12	mg/L
	Mg	24	1374512.902	1.832	5.134	0.58522	1.58	mg/L
	K	39	2827092.253	2.029	5.990	0.21860	3.44	mg/L
	Ca	44	14890280.996	3.933	55.643	63.33424	4.05	mg/L
	Fe	54	405344.811	1.780	1.386	0.60037	2.27	mg/L
>	Sc-1	45	267021.438	0.314	267021.438			mg/L
	Kr	83	132.668	11.315	-12.667			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.137			
	Be	9			9.249		
	Al	27			11.954		
>	Sc	45		98.950			
	V	51			9.539		
	Cr	52			9.200		
	Mn	55			92.116		
	Co	59			7.092		
	Ni	60			8.955		
	Cu	65			19.899		
	Zn	66			595.378		
>	Ge	72		102.691			
	As	75			10.887		
	Se	82			7.421		
	Y	89					
	Mo	98			8.677		
	Ag	107			8.715		
	Cd	111			10.288		
	Cd	114					
>	In	115		99.705			
	Sb	121			8.898		
	Ba	135			12.283		
>	Tb	159		100.652			
	Ho	165					
	Tl	205			8.866		
	Pb	208			9.107		
	Bi	209					
	Th	232					
	U	238					
	Na	23			16.411		
	Mg	24			31.638		
	K	39			8.502		
	Ca	44			4809.025		
	Fe	54			27.005		
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: 1011118-MSD2 @50X

Sample Date/Time: Thursday, December 02, 2010 11:16:50
Sample Type: Spike - 2 of 2
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1011118-MSD2 @50X.7608
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	30824.493	0.532	30824.493			ug/L
	Be	9	1140.104	0.464	0.036	4.38794	0.88	ug/L
	Al	27	369317.553	4.958	1.339	87.16425	6.22	ug/L
>	Sc	45	266323.320	4.579	266323.320			ug/L
	V	51	63513.268	7.393	0.225	5.68639	5.70	ug/L
	Cr	52	78280.619	1.833	0.250	7.52671	5.79	ug/L
	Mn	55	3163221.781	1.986	11.897	250.82386	6.37	ug/L
	Co	59	32609.334	3.231	0.122	3.18972	2.18	ug/L
	Ni	60	17604.044	2.350	0.066	8.14216	3.00	ug/L
	Cu	65	32701.597	4.034	0.120	15.25206	7.83	ug/L
	Zn	66	2070322.219	0.957	7.659	1690.93641	1.41	ug/L
>	Ge	72	270235.942	2.364	270235.942			ug/L
	As	75	33112.049	2.919	0.122	24.00547	1.77	ug/L
	Se	82	4272.127	1.908	0.015	31.61895	3.90	ug/L
	Y	89	496494.579	1.093	27592.371			ug/L
	Mo	98	28737.067	1.792	0.085	7.21422	1.06	ug/L
	Ag	107	6781.012	2.932	0.019	1.30617	2.13	ug/L
	Cd	111	13320.736	0.814	0.039	11.23606	1.30	ug/L
	Cd	114	28800.653	3.918	0.085	11.09035	3.90	mg/L
>	In	115	337714.680	0.877	337714.680			ug/L
	Sb	121	52903.657	1.430	0.156	14.38984	2.21	ug/L
	Ba	135	9681.497	2.868	0.025	10.66542	1.62	ug/L
>	Tb	159	381444.311	1.819	381444.311			ug/L
	Ho	165	340123.280	1.361	-0.016			ug/L
	Tl	205	177205.916	3.100	0.464	36.69781	2.76	ug/L
	Pb	208	147764.909	0.594	0.387	22.47746	2.39	ug/L
	Bi	209	132219.663	2.118	-0.009			ug/L
	Th	232	81.334	31.714	-0.000	-0.00353	112.78	ug/L
	U	238	1130.769	8.565	0.003	0.16165	7.04	ug/L
	Na	23	615034.245	3.759	2.150	0.17896	1.68	mg/L
	Mg	24	1312219.018	5.255	4.913	0.56004	1.76	mg/L
	K	39	2795901.625	3.663	5.922	0.21615	13.05	mg/L
	Ca	44	14218912.877	5.051	53.400	60.78127	8.95	mg/L
	Fe	54	365854.455	2.365	1.245	0.53898	7.13	mg/L
>	Sc-1	45	266323.320	4.579	266323.320			mg/L
	Kr	83	142.002	12.676	-3.333			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		97.993			
	Be	9			9.032		
	Al	27			11.561		
>	Sc	45		98.691			
	V	51			9.286		
	Cr	52			9.036		
	Mn	55			39.638		
	Co	59			7.249		
	Ni	60			9.104		
	Cu	65			15.473		
	Zn	66			763.736		
>	Ge	72		100.681			
	As	75			10.421		
	Se	82			7.766		
	Y	89					
	Mo	98			8.600		
	Ag	107			8.503		
	Cd	111			11.633		
	Cd	114					
>	In	115		99.852			
	Sb	121			8.902		
	Ba	135			10.859		
>	Tb	159		100.090			
	Ho	165					
	Tl	205			8.795		
	Pb	208			8.965		
	Bi	209					
	Th	232					
	U	238					
	Na	23			14.333		
	Mg	24			25.343		
	K	39			8.379		
	Ca	44			3532.538		
	Fe	54			16.773		
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: 1011118-PS2 @50X

Sample Date/Time: Thursday, December 02, 2010 11:19:38
Sample Type: Spike - 3 of 2
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1011118-PS2 @50X.7609
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	31085.836	3.259	31085.836			ug/L
	Be	9	715.374	3.336	0.022	2.70750	4.23	ug/L
	Al	27	1055848.736	3.944	3.895	253.56585	8.12	ug/L
>	Sc	45	268345.272	4.981	268345.272			ug/L
	V	51	25951.041	6.925	0.083	2.10217	4.19	ug/L
	Cr	52	31121.374	4.021	0.072	2.17235	13.16	ug/L
	Mn	55	2809508.411	1.956	10.489	221.14109	6.59	ug/L
	Co	59	14279.575	6.988	0.053	1.37672	2.61	ug/L
	Ni	60	1578.887	34.320	0.005	0.67238	32.66	ug/L
	Cu	65	19836.704	4.080	0.071	9.04097	5.06	ug/L
	Zn	66	1716277.208	2.451	6.333	1398.18826	1.39	ug/L
>	Ge	72	270820.456	1.400	270820.456			ug/L
	As	75	13081.249	1.964	0.048	9.42025	0.60	ug/L
	Se	82	1551.526	3.363	0.005	10.81363	5.18	ug/L
	Y	89	482098.632	2.108	13196.424			ug/L
	Mo	98	9005.545	0.903	0.027	2.26841	0.77	ug/L
	Ag	107	9501.884	0.898	0.028	1.87307	0.82	ug/L
	Cd	111	10170.629	0.625	0.030	8.65763	1.61	ug/L
	Cd	114	21387.802	0.890	0.064	8.34442	2.18	mg/L
>	In	115	333040.812	1.266	333040.812			ug/L
	Sb	121	8046.512	2.342	0.024	2.19852	2.76	ug/L
	Ba	135	7469.798	3.405	0.020	8.37762	1.03	ug/L
>	Tb	159	374006.863	2.462	374006.863			ug/L
	Ho	165	338497.300	0.984	-0.002			ug/L
	Tl	205	18614.347	1.154	0.049	3.89844	1.49	ug/L
	Pb	208	41620.389	1.683	0.110	6.41743	0.81	ug/L
	Bi	209	127594.781	1.435	-0.015			ug/L
	Th	232	12101.042	2.529	0.032	1.85128	0.59	ug/L
	U	238	13309.493	1.822	0.035	2.03625	3.88	ug/L
	Na	23	1182037.358	2.316	4.253	0.35407	6.64	mg/L
	Mg	24	1611313.062	1.836	6.002	0.68412	5.62	mg/L
	K	39	2874471.659	2.164	6.127	0.22361	6.90	mg/L
	Ca	44	12965241.305	0.826	48.265	54.93605	4.54	mg/L
	Fe	54	425444.278	3.832	1.458	0.63154	9.63	mg/L
>	Sc-1	45	268345.272	4.981	268345.272			mg/L
	Kr	83	141.335	13.072	-4.000			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		98.824			
	Be	9			1.933		
	Al	27			2.126		
>	Sc	45		99.440			
	V	51			1.987		
	Cr	52			1.874		
	Mn	55			-13.828		
	Co	59			1.812		
	Ni	60			1.635		
	Cu	65			3.073		
	Zn	66			12.746		
>	Ge	72		100.899			
	As	75			2.088		
	Se	82			2.052		
	Y	89					
	Mo	98			1.934		
	Ag	107			1.842		
	Cd	111			2.075		
	Cd	114					
>	In	115		98.470			
	Sb	121			2.052		
	Ba	135			2.056		
>	Tb	159		98.138			
	Ho	165					
	Tl	205			2.383		
	Pb	208			1.870		
	Bi	209					
	Th	232			1.857		
	U	238			1.903		
	Na	23			2.611		
	Mg	24			2.255		
	K	39			1.750		
	Ca	44			12.199		
	Fe	54			1.932		
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: C101105-02 @50X

Sample Date/Time: Thursday, December 02, 2010 11:22:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C101105-02 @50X.7610
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	30076.939	4.003	30076.939			ug/L
	Be	9	128.001	11.797	0.004	0.45059	18.02	ug/L
	Al	27	4999405.623	8.226	19.549	1272.53694	7.76	ug/L
>	Sc	45	255080.134	2.232	255080.134			ug/L
	V	51	26850.232	7.258	0.092	2.31744	5.91	ug/L
	Cr	52	24475.281	6.097	0.052	1.56167	11.00	ug/L
	Mn	55	3905752.687	3.786	15.313	322.83537	4.14	ug/L
	Co	59	17943.674	3.956	0.070	1.82541	2.89	ug/L
	Ni	60	3963.375	11.321	0.015	1.87262	9.80	ug/L
	Cu	65	34177.621	5.465	0.131	16.64299	6.10	ug/L
	Zn	66	364654.672	3.127	1.442	318.38022	1.54	ug/L
>	Ge	72	252164.889	1.919	252164.889			ug/L
	As	75	40267.059	0.549	0.159	31.31236	1.69	ug/L
	Se	82	164.002	5.589	0.000	0.33351	29.97	ug/L
	Y	89	499013.961	2.287	30111.753			ug/L
	Mo	98	7742.293	2.114	0.025	2.17225	1.93	ug/L
	Ag	107	5768.662	2.743	0.019	1.25432	0.75	ug/L
	Cd	111	3586.577	2.199	0.011	3.28869	1.09	ug/L
	Cd	114	7329.852	1.262	0.024	3.16601	1.28	mg/L
>	In	115	298812.573	2.023	298812.573			ug/L
	Sb	121	322.675	11.668	0.001	0.07456	12.73	ug/L
	Ba	135	17663.615	3.771	0.050	21.20142	3.20	ug/L
>	Tb	159	351197.891	1.665	351197.891			ug/L
	Ho	165	317197.334	2.038	-0.004			ug/L
	Tl	205	3239.506	1.006	0.009	0.69158	1.70	ug/L
	Pb	208	405978.876	0.764	1.155	67.17040	1.13	ug/L
	Bi	209	129719.751	0.876	0.013			ug/L
	Th	232	1734.908	3.491	0.005	0.26919	2.59	ug/L
	U	238	1284.132	0.824	0.004	0.20155	0.89	ug/L
	Na	23	376435.512	6.438	1.316	0.10951	6.76	mg/L
	Mg	24	2609402.945	7.886	10.213	1.16413	6.79	mg/L
	K	39	2553744.870	10.269	5.420	0.19781	19.95	mg/L
	Ca	44	5164983.226	3.089	20.134	22.91676	4.11	mg/L
	Fe	54	4909910.001	3.919	19.129	8.28424	5.43	mg/L
>	Sc-1	45	255080.134	2.232	255080.134			mg/L
	Kr	83	121.335	10.072	-24.001			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		95.616			
	Be	9					
	Al	27					
>	Sc	45		94.525			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		93.948			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.350			
	Sb	121					
	Ba	135					
>	Tb	159		92.153			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, December 02, 2010 11:25:16
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Blank.7611
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	27632.954	0.688	27632.954			ug/L
	Be	9	9.333	24.744	-0.000	-0.02315	42.38	ug/L
	Al	27	12705.591	5.143	0.002	0.11374	181.46	ug/L
>	Sc	45	250019.627	4.212	250019.627			ug/L
	V	51	2918.570	17.111	-0.002	-0.04531	134.18	ug/L
	Cr	52	9527.932	4.259	-0.006	-0.17539	54.29	ug/L
	Mn	55	1417.499	7.118	0.003	0.05446	24.45	ug/L
	Co	59	85.067	15.643	-0.000	-0.00539	21.81	ug/L
	Ni	60	35.067	14.814	-0.000	-0.03176	9.63	ug/L
	Cu	65	2573.065	5.420	0.008	0.97703	12.33	ug/L
	Zn	66	1362.815	3.257	0.001	0.30371	24.35	ug/L
>	Ge	72	262779.883	3.413	262779.883			ug/L
	As	75	93.494	32.326	-0.000	-0.00015	15381.88	ug/L
	Se	82	137.335	4.681	0.000	0.06948	88.32	ug/L
	Y	89	463890.904	2.549	-5011.304			ug/L
	Mo	98	140.166	17.430	0.000	0.00174	419.68	ug/L
	Ag	107	507.354	11.264	0.001	0.06641	21.70	ug/L
	Cd	111	228.296	7.493	0.000	0.01876	56.54	ug/L
	Cd	114	73.676	27.756	-0.000	-0.00413	215.62	mg/L
>	In	115	320655.641	2.488	320655.641			ug/L
	Sb	121	43.333	35.850	-0.000	-0.01226	35.70	ug/L
	Ba	135	14.667	34.317	-0.000	-0.05051	11.55	ug/L
>	Tb	159	369098.496	0.761	369098.496			ug/L
	Ho	165	332227.947	1.480	-0.007			ug/L
	Tl	205	542.690	5.004	0.001	0.07834	6.31	ug/L
	Pb	208	423.339	3.962	0.000	0.01258	19.96	ug/L
	Bi	209	127698.104	2.985	-0.010			ug/L
	Th	232	32.000	27.243	-0.000	-0.01085	12.16	ug/L
	U	238	14.000	37.796	-0.000	-0.00626	13.39	ug/L
	Na	23	7967.089	6.467	-0.128	-0.01068	0.82	mg/L
	Mg	24	2486.496	6.345	-0.003	-0.00040	20.42	mg/L
	K	39	1092893.775	2.031	-0.220	-0.00803	111.05	mg/L
	Ca	44	32316.677	1.298	0.006	0.00730	84.66	mg/L
	Fe	54	35312.800	3.249	0.010	0.00421	104.72	mg/L
>	Sc-1	45	250019.627	4.212	250019.627			mg/L
	Kr	83	118.001	10.585	-27.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		87.847			
	Be	9					
	Al	27					
>	Sc	45		92.649			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		97.903			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.808			
	Sb	121					
	Ba	135					
>	Tb	159		96.850			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: SEQ-CCV

Sample Date/Time: Thursday, December 02, 2010 11:28:03
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCV.7612
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	32147.852	3.095	32147.852			ug/L
	Be	9	12750.997	1.937	0.396	47.68645	1.52	ug/L
	Al	27	1086349.400	6.567	3.994	259.97213	7.89	ug/L
>	Sc	45	268865.850	1.191	268865.850			ug/L
	V	51	512328.514	6.064	1.893	47.86471	7.30	ug/L
	Cr	52	437887.942	4.266	1.585	47.66765	5.53	ug/L
	Mn	55	625253.490	4.677	2.323	48.97184	5.11	ug/L
	Co	59	486681.163	3.050	1.810	47.34062	3.99	ug/L
	Ni	60	106078.051	1.394	0.394	48.81199	2.32	ug/L
	Cu	65	108264.274	1.784	0.400	50.66599	2.63	ug/L
	Zn	66	61954.227	0.672	0.225	49.59336	2.43	ug/L
>	Ge	72	271324.976	3.032	271324.976			ug/L
	As	75	67932.294	1.486	0.250	49.14406	2.25	ug/L
	Se	82	6643.534	4.360	0.024	49.56979	7.32	ug/L
	Y	89	474324.827	0.326	5422.619			ug/L
	Mo	98	200894.170	1.500	0.584	49.74821	0.95	ug/L
	Ag	107	259469.839	3.172	0.754	50.56083	3.26	ug/L
	Cd	111	59772.023	2.065	0.173	50.16222	2.41	ug/L
	Cd	114	131706.953	1.957	0.383	49.93453	1.55	mg/L
>	In	115	343809.903	0.548	343809.903			ug/L
	Sb	121	183351.385	2.219	0.533	49.04542	2.71	ug/L
	Ba	135	46368.074	1.949	0.117	49.66784	1.00	ug/L
>	Tb	159	394255.697	1.443	394255.697			ug/L
	Ho	165	353240.043	0.402	-0.011			ug/L
	Tl	205	238496.106	0.841	0.605	47.80536	2.25	ug/L
	Pb	208	320087.946	1.560	0.811	47.16003	2.03	ug/L
	Bi	209	134327.843	1.908	-0.015			ug/L
	Th	232	326108.656	1.896	0.827	47.72167	2.13	ug/L
	U	238	319238.866	1.721	0.810	46.50102	3.00	ug/L
	Na	23	16401471.356	2.354	60.844	5.06475	2.20	mg/L
	Mg	24	11254292.181	6.567	41.869	4.77264	7.73	mg/L
	K	39	36708515.650	0.347	131.945	4.81549	1.13	mg/L
	Ca	44	1252726.212	2.632	4.536	5.16273	1.51	mg/L
	Fe	54	3130141.354	3.143	11.512	4.98547	3.55	mg/L
>	Sc-1	45	268865.850	1.191	268865.850			mg/L
	Kr	83	112.001	13.482	-33.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		102.200			
	Be	9	95.373				
	Al	27	103.989				
>	Sc	45		99.633			
	V	51	95.729				
	Cr	52	95.335				
	Mn	55	97.944				
	Co	59	94.681				
	Ni	60	97.624				
	Cu	65	101.332				
	Zn	66	99.187				
>	Ge	72		101.087			
	As	75	98.288				
	Se	82	99.140				
	Y	89					
	Mo	98	99.496				
	Ag	107	101.122				
	Cd	111	100.324				
	Cd	114					
>	In	115		101.655			
	Sb	121	98.091				
	Ba	135	99.336				
>	Tb	159		103.452			
	Ho	165					
	Tl	205	95.611				
	Pb	208	94.320				
	Bi	209					
	Th	232	95.443				
	U	238	93.002				
	Na	23	101.295				
	Mg	24	95.453				
	K	39	96.310				
	Ca	44	103.255				
	Fe	54	99.709				
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: SEQ-CCB

Sample Date/Time: Thursday, December 02, 2010 11:31:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCB.7613
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	29318.022	4.333	29318.022			ug/L
	Be	9	15.333	15.061	-0.000	-0.00098	710.96	ug/L
	Al	27	15074.843	3.872	0.008	0.49688	9.94	ug/L
>	Sc	45	265621.028	3.678	265621.028			ug/L
	V	51	3154.909	4.732	-0.002	-0.04176	21.39	ug/L
	Cr	52	10307.163	2.810	-0.005	-0.15684	6.65	ug/L
	Mn	55	1027.955	12.492	0.001	0.01643	75.96	ug/L
	Co	59	243.711	10.967	0.000	0.00970	21.73	ug/L
	Ni	60	127.041	6.373	0.000	0.01007	40.39	ug/L
	Cu	65	2609.733	5.107	0.007	0.91531	7.30	ug/L
	Zn	66	1403.491	6.388	0.002	0.33482	31.34	ug/L
>	Ge	72	263535.936	3.046	263535.936			ug/L
	As	75	42.663	191.457	-0.000	-0.03850	155.44	ug/L
	Se	82	121.335	18.157	-0.000	-0.05844	308.87	ug/L
	Y	89	470297.024	2.684	1394.816			ug/L
	Mo	98	506.404	11.049	0.001	0.08899	14.91	ug/L
	Ag	107	741.378	12.037	0.002	0.10362	16.14	ug/L
	Cd	111	245.847	6.878	0.000	0.01840	80.17	ug/L
	Cd	114	110.163	13.680	0.000	0.00729	76.11	mg/L
>	In	115	346209.341	0.391	346209.341			ug/L
	Sb	121	358.677	4.872	0.001	0.07064	6.04	ug/L
	Ba	135	72.667	5.729	0.000	0.01007	39.80	ug/L
>	Tb	159	397059.531	1.614	397059.531			ug/L
	Ho	165	353029.275	0.377	-0.018			ug/L
	Tl	205	388.679	3.862	0.001	0.03954	9.88	ug/L
	Pb	208	474.007	5.534	0.000	0.01530	23.42	ug/L
	Bi	209	131279.092	0.454	-0.025			ug/L
	Th	232	153.335	3.985	0.000	0.00644	14.48	ug/L
	U	238	104.668	12.135	0.000	0.00669	25.19	ug/L
	Na	23	44426.852	4.140	0.007	0.00059	90.89	mg/L
	Mg	24	8112.762	21.846	0.017	0.00197	43.32	mg/L
	K	39	1215264.574	0.882	-0.019	-0.00069	806.27	mg/L
	Ca	44	32346.827	0.907	-0.001	-0.00123	481.76	mg/L
	Fe	54	35945.889	3.312	0.004	0.00163	246.19	mg/L
>	Sc-1	45	265621.028	3.678	265621.028			mg/L
	Kr	83	136.668	2.235	-8.667			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		93.204			
	Be	9					
	Al	27					
>	Sc	45		98.431			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		98.185			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.364			
	Sb	121					
	Ba	135					
>	Tb	159		104.187			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: C101105-03 @10X

Sample Date/Time: Thursday, December 02, 2010 11:34:07
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C101105-03 @10X.7614
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	28949.294	9.544	28949.294			ug/L
	Be	9	57.334	7.262	0.001	0.17546	10.94	ug/L
	Al	27	3964625.492	6.779	15.209	990.01727	9.55	ug/L
>	Sc	45	260272.818	2.803	260272.818			ug/L
	V	51	37173.420	2.308	0.129	3.26967	1.46	ug/L
	Cr	52	22424.224	5.071	0.042	1.27061	16.24	ug/L
	Mn	55	986734.225	6.380	3.792	79.94222	7.84	ug/L
	Co	59	50041.584	4.811	0.192	5.01771	5.92	ug/L
	Ni	60	7186.876	2.623	0.027	3.37072	2.43	ug/L
	Cu	65	72544.264	2.786	0.276	34.98754	4.61	ug/L
	Zn	66	312748.880	1.387	1.206	266.14734	2.94	ug/L
>	Ge	72	258699.140	1.738	258699.140			ug/L
	As	75	4441.568	7.171	0.017	3.30402	7.51	ug/L
	Se	82	166.002	4.344	0.000	0.31401	12.60	ug/L
	Y	89	494497.513	2.086	25595.305			ug/L
	Mo	98	14391.906	3.221	0.044	3.74490	2.95	ug/L
	Ag	107	952.739	2.341	0.002	0.15703	2.59	ug/L
	Cd	111	3726.096	2.638	0.011	3.13952	2.48	ug/L
	Cd	114	7972.768	2.277	0.024	3.17224	2.08	mg/L
>	In	115	324337.695	0.302	324337.695			ug/L
	Sb	121	582.027	5.401	0.002	0.14044	6.34	ug/L
	Ba	135	17662.931	2.206	0.048	20.12160	1.52	ug/L
>	Tb	159	369967.457	1.112	369967.457			ug/L
	Ho	165	332974.588	0.738	-0.008			ug/L
	Tl	205	708.707	4.972	0.001	0.11364	8.10	ug/L
	Pb	208	117480.281	0.574	0.317	18.41203	1.58	ug/L
	Bi	209	131585.770	1.971	-0.000			ug/L
	Th	232	1308.804	7.013	0.003	0.18832	7.78	ug/L
	U	238	3591.032	2.677	0.010	0.54893	2.42	ug/L
	Na	23	75963.771	5.516	0.132	0.01095	6.20	mg/L
	Mg	24	1511352.254	1.559	5.796	0.66064	2.47	mg/L
	K	39	1910587.702	3.127	2.751	0.10041	15.97	mg/L
	Ca	44	276692.873	3.009	0.940	1.07044	3.73	mg/L
	Fe	54	1476293.920	5.361	5.545	2.40124	6.67	mg/L
>	Sc-1	45	260272.818	2.803	260272.818			mg/L
	Kr	83	133.335	12.757	-12.000			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		92.032			
	Be	9					
	Al	27					
>	Sc	45		96.449			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		96.383			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.897			
	Sb	121					
	Ba	135					
>	Tb	159		97.078			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: C101105-04 @50X

Sample Date/Time: Thursday, December 02, 2010 11:36:56
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C101105-04 @50X.7615
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	26820.813	3.762	26820.813			ug/L
	Be	9	462.684	7.028	0.017	2.01524	8.88	ug/L
	Al	27	5321085.798	4.655	20.956	1364.07321	6.54	ug/L
>	Sc	45	253548.135	2.117	253548.135			ug/L
	V	51	20299.239	1.754	0.067	1.68260	2.56	ug/L
	Cr	52	19962.514	2.934	0.035	1.04464	9.61	ug/L
	Mn	55	47085234.009	3.556	185.665	3914.28898	1.48	ug/L
	Co	59	33908.392	5.751	0.133	3.48191	3.96	ug/L
	Ni	60	5995.521	2.080	0.023	2.87928	2.22	ug/L
	Cu	65	207689.104	0.796	0.817	103.41005	1.36	ug/L
	Zn	66	1498876.371	1.974	5.733	1265.74807	2.19	ug/L
>	Ge	72	261329.028	2.504	261329.028			ug/L
	As	75	15158.786	5.133	0.058	11.32446	3.44	ug/L
	Se	82	1146.105	4.995	0.004	8.04605	7.79	ug/L
	Y	89	539668.298	1.956	70766.090			ug/L
	Mo	98	16370.630	2.538	0.053	4.48111	2.64	ug/L
	Ag	107	3916.563	5.772	0.012	0.81170	9.41	ug/L
	Cd	111	11862.635	2.011	0.038	10.93877	3.05	ug/L
	Cd	114	25542.628	3.450	0.082	10.75088	0.85	mg/L
>	In	115	308932.773	3.335	308932.773			ug/L
	Sb	121	625.365	8.854	0.002	0.16156	9.35	ug/L
	Ba	135	18794.219	1.395	0.052	22.11545	0.45	ug/L
>	Tb	159	358309.853	1.716	358309.853			ug/L
	Ho	165	321858.119	1.202	-0.009			ug/L
	Tl	205	1036.086	5.586	0.002	0.19074	6.29	ug/L
	Pb	208	708390.133	1.657	1.977	114.93852	2.96	ug/L
	Bi	209	140247.525	2.751	0.036			ug/L
	Th	232	2528.512	2.797	0.007	0.39151	3.94	ug/L
	U	238	2437.142	0.664	0.007	0.38223	2.14	ug/L
	Na	23	88841.829	2.142	0.190	0.01584	3.85	mg/L
	Mg	24	1267795.181	1.166	4.988	0.56861	2.42	mg/L
	K	39	2122345.114	2.133	3.774	0.13774	4.67	mg/L
	Ca	44	3577408.185	3.300	13.986	15.91954	2.56	mg/L
	Fe	54	9745152.095	2.068	38.311	16.59165	2.43	mg/L
>	Sc-1	45	253548.135	2.117	253548.135			mg/L
	Kr	83	143.335	13.553	-2.000			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		85.265			
	Be	9					
	Al	27					
>	Sc	45		93.957			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		97.363			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.342			
	Sb	121					
	Ba	135					
>	Tb	159		94.019			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: C101105-05 @50X

Sample Date/Time: Thursday, December 02, 2010 11:39:43
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C101105-05 @50X.7616
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	23518.166	0.564	23518.166			ug/L
	Be	9	763.380	3.615	0.032	3.84253	3.25	ug/L
	Al	27	8965821.000	8.516	39.668	2582.11084	9.42	ug/L
>	Sc	45	225878.863	1.036	225878.863			ug/L
	V	51	5115.302	9.684	0.009	0.23084	26.12	ug/L
	Cr	52	18285.379	1.290	0.037	1.11062	4.91	ug/L
	Mn	55	185795992.421	3.743	822.798	17346.67105	4.72	ug/L
	Co	59	289077.924	4.870	1.280	33.46645	5.56	ug/L
	Ni	60	45823.812	8.499	0.203	25.08426	9.39	ug/L
	Cu	65	1192610.768	3.853	5.278	668.35434	4.45	ug/L
	Zn	66	18940049.500	4.905	74.769	16507.17472	4.36	ug/L
>	Ge	72	253268.088	1.139	253268.088			ug/L
	As	75	5127.600	2.551	0.020	3.90869	3.22	ug/L
	Se	82	247.338	8.907	0.000	1.00426	16.22	ug/L
	Y	89	536674.715	1.791	67772.507			ug/L
	Mo	98	154742.446	1.990	0.500	42.56046	2.83	ug/L
	Ag	107	2201.721	0.500	0.007	0.43697	1.54	ug/L
	Cd	111	97988.661	1.312	0.316	91.48355	1.73	ug/L
	Cd	114	214740.519	1.060	0.693	90.46117	1.98	mg/L
>	In	115	309583.791	1.328	309583.791			ug/L
	Sb	121	2032.997	2.166	0.006	0.57950	1.34	ug/L
	Ba	135	50421.337	2.760	0.142	59.98657	2.00	ug/L
>	Tb	159	355093.156	2.491	355093.156			ug/L
	Ho	165	321124.465	2.022	-0.003			ug/L
	Tl	205	1618.210	2.256	0.004	0.32247	1.29	ug/L
	Pb	208	372554.675	2.375	1.048	60.95319	0.12	ug/L
	Bi	209	135242.178	2.529	0.025			ug/L
	Th	232	2403.796	5.051	0.006	0.37501	6.27	ug/L
	U	238	29356.792	1.337	0.083	4.74152	3.48	ug/L
	Na	23	161112.262	5.558	0.553	0.04606	8.41	mg/L
	Mg	24	644275.117	6.042	2.840	0.32376	7.09	mg/L
	K	39	1438406.715	4.357	1.772	0.06469	18.93	mg/L
	Ca	44	638327.855	4.340	2.703	3.07716	5.04	mg/L
	Fe	54	16746769.171	2.179	74.025	32.05831	3.19	mg/L
>	Sc-1	45	225878.863	1.036	225878.863			mg/L
	Kr	83	136.668	9.744	-8.667			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		74.766			
	Be	9					
	Al	27					
>	Sc	45		83.704			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		94.359			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.535			
	Sb	121					
	Ba	135					
>	Tb	159		93.175			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: C101105-06 @50X

Sample Date/Time: Thursday, December 02, 2010 11:42:31
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C101105-06 @50X.7617
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	22485.804	5.918	22485.804			ug/L
	Be	9	598.695	6.017	0.026	3.14077	1.17	ug/L
	Al	27	5727036.626	2.972	26.263	1709.54212	6.92	ug/L
>	Sc	45	218048.015	3.884	218048.015			ug/L
	V	51	5273.711	7.542	0.011	0.26894	9.12	ug/L
	Cr	52	15489.852	3.332	0.027	0.81436	13.38	ug/L
	Mn	55	205073192.750	3.107	940.686	19832.04796	0.82	ug/L
	Co	59	329753.908	0.987	1.513	39.56963	3.05	ug/L
	Ni	60	46654.970	2.615	0.214	26.49006	6.57	ug/L
	Cu	65	911616.272	4.082	4.186	530.07745	7.81	ug/L
	Zn	66	19754116.891	3.447	82.391	18190.09374	1.37	ug/L
>	Ge	72	239777.458	3.669	239777.458			ug/L
	As	75	4474.469	4.848	0.018	3.60294	7.94	ug/L
	Se	82	258.005	13.715	0.001	1.21501	27.73	ug/L
	Y	89	493800.683	5.330	24898.475			ug/L
	Mo	98	143400.354	0.767	0.487	41.47790	1.04	ug/L
	Ag	107	1835.603	4.882	0.006	0.37828	5.74	ug/L
	Cd	111	96351.156	4.370	0.327	94.60769	4.07	ug/L
	Cd	114	209198.346	1.832	0.710	92.67979	1.52	mg/L
>	In	115	294324.653	0.548	294324.653			ug/L
	Sb	121	2199.054	3.459	0.007	0.66285	4.15	ug/L
	Ba	135	56686.032	2.754	0.167	70.67087	1.20	ug/L
>	Tb	159	338899.789	2.686	338899.789			ug/L
	Ho	165	306214.961	1.849	-0.004			ug/L
	Tl	205	1242.790	2.903	0.003	0.25235	6.35	ug/L
	Pb	208	320769.083	1.985	0.946	55.02023	4.21	ug/L
	Bi	209	132115.903	1.239	0.034			ug/L
	Th	232	1730.240	4.824	0.005	0.27915	7.87	ug/L
	U	238	29196.723	2.092	0.086	4.94225	4.37	ug/L
	Na	23	96711.078	8.160	0.283	0.02354	6.79	mg/L
	Mg	24	506758.426	1.442	2.313	0.26368	4.57	mg/L
	K	39	1645612.050	8.853	2.969	0.10835	29.74	mg/L
	Ca	44	637155.955	5.368	2.800	3.18721	5.14	mg/L
	Fe	54	13073659.054	2.127	59.878	25.93170	3.89	mg/L
>	Sc-1	45	218048.015	3.884	218048.015			mg/L
	Kr	83	162.002	6.415	16.667			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		71.484			
	Be	9					
	Al	27					
>	Sc	45		80.802			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		89.333			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.023			
	Sb	121					
	Ba	135					
>	Tb	159		88.926			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: C101105-07 @50X

Sample Date/Time: Thursday, December 02, 2010 11:45:19
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C101105-07 @50X.7618
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	22020.740	2.391	22020.740			ug/L
	Be	9	560.692	9.687	0.025	3.00338	10.88	ug/L
	Al	27	8504548.567	1.177	40.012	2604.54444	4.64	ug/L
>	Sc	45	212514.755	3.508	212514.755			ug/L
	V	51	14637.337	11.643	0.055	1.39797	12.09	ug/L
	Cr	52	22945.388	2.158	0.064	1.92652	8.88	ug/L
	Mn	55	10856939.777	4.267	51.114	1077.60892	4.73	ug/L
	Co	59	24952.862	2.734	0.117	3.05810	2.98	ug/L
	Ni	60	6585.096	4.499	0.031	3.78762	2.75	ug/L
	Cu	65	1121896.099	2.039	5.281	668.65283	3.90	ug/L
	Zn	66	5816738.478	2.682	23.695	5231.19318	2.94	ug/L
>	Ge	72	245520.314	2.647	245520.314			ug/L
	As	75	5783.688	6.390	0.023	4.55639	4.54	ug/L
	Se	82	206.003	18.600	0.000	0.71655	39.17	ug/L
	Y	89	527204.860	4.440	58302.652			ug/L
	Mo	98	28864.451	4.076	0.097	8.29793	3.22	ug/L
	Ag	107	4719.783	3.975	0.015	1.03289	5.10	ug/L
	Cd	111	28694.478	1.464	0.097	27.97490	0.59	ug/L
	Cd	114	64005.334	2.389	0.217	28.26022	1.63	mg/L
>	In	115	295058.210	0.915	295058.210			ug/L
	Sb	121	1090.762	3.986	0.003	0.31555	5.22	ug/L
	Ba	135	11669.551	0.673	0.035	14.66661	2.19	ug/L
>	Tb	159	335023.943	1.757	335023.943			ug/L
	Ho	165	303296.435	1.910	-0.002			ug/L
	Tl	205	507.354	8.366	0.001	0.08197	14.58	ug/L
	Pb	208	818564.277	0.666	2.443	142.04760	2.00	ug/L
	Bi	209	138758.063	0.163	0.058			ug/L
	Th	232	4380.201	1.939	0.013	0.73895	3.74	ug/L
	U	238	27832.519	2.120	0.083	4.76418	3.86	ug/L
	Na	23	43760.700	1.850	0.046	0.00382	11.80	mg/L
	Mg	24	748193.745	3.501	3.508	0.39989	2.81	mg/L
	K	39	1577610.910	2.722	2.832	0.10334	11.10	mg/L
	Ca	44	498858.109	1.322	2.227	2.53478	4.97	mg/L
	Fe	54	17723938.081	5.032	83.426	36.12999	8.37	mg/L
>	Sc-1	45	212514.755	3.508	212514.755			mg/L
	Kr	83	148.668	8.109	3.333			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		70.005			
	Be	9					
	Al	27					
>	Sc	45		78.751			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		91.473			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.240			
	Sb	121					
	Ba	135					
>	Tb	159		87.909			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: C101105-08 @50X

Sample Date/Time: Thursday, December 02, 2010 11:48:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C101105-08 @50X.7619
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	21719.022	2.631	21719.022			ug/L
	Be	9	582.694	6.351	0.026	3.16642	6.84	ug/L
	Al	27	6252137.332	9.823	30.154	1962.83980	8.80	ug/L
>	Sc	45	206891.019	1.457	206891.019			ug/L
	V	51	6797.957	7.349	0.019	0.48853	11.44	ug/L
	Cr	52	17029.840	1.539	0.038	1.15117	0.64	ug/L
	Mn	55	142474622.473	4.674	688.439	14514.04418	3.31	ug/L
	Co	59	237921.830	2.310	1.149	30.06252	1.75	ug/L
	Ni	60	32095.524	6.655	0.155	19.15531	5.90	ug/L
	Cu	65	997403.297	1.921	4.818	610.10115	1.21	ug/L
	Zn	66	14255167.777	4.339	59.535	13143.84840	5.81	ug/L
>	Ge	72	239612.211	2.724	239612.211			ug/L
	As	75	5315.873	1.853	0.022	4.29050	2.34	ug/L
	Se	82	252.005	3.175	0.001	1.16056	5.43	ug/L
	Y	89	492798.677	1.145	23896.469			ug/L
	Mo	98	119637.570	1.959	0.411	35.03219	3.53	ug/L
	Ag	107	3868.530	1.412	0.013	0.85233	3.08	ug/L
	Cd	111	71091.369	1.413	0.244	70.62302	2.01	ug/L
	Cd	114	156186.858	0.635	0.537	70.03938	1.45	mg/L
>	In	115	290791.938	1.734	290791.938			ug/L
	Sb	121	2241.069	2.973	0.007	0.68447	3.14	ug/L
	Ba	135	41585.899	0.833	0.123	51.98776	0.30	ug/L
>	Tb	159	337850.473	1.100	337850.473			ug/L
	Ho	165	304756.023	1.761	-0.006			ug/L
	Tl	205	980.077	4.242	0.002	0.19156	6.21	ug/L
	Pb	208	454691.677	2.709	1.345	78.20495	2.70	ug/L
	Bi	209	136670.240	1.023	0.049			ug/L
	Th	232	2865.991	3.912	0.008	0.47361	3.25	ug/L
	U	238	26842.211	2.663	0.079	4.55485	3.57	ug/L
	Na	23	88179.692	4.044	0.266	0.02216	8.44	mg/L
	Mg	24	755262.951	7.608	3.635	0.41437	6.28	mg/L
	K	39	1287814.333	1.063	1.627	0.05938	1.51	mg/L
	Ca	44	499585.815	4.073	2.292	2.60892	4.59	mg/L
	Fe	54	12821875.199	2.759	61.842	26.78245	2.37	mg/L
>	Sc-1	45	206891.019	1.457	206891.019			mg/L
	Kr	83	134.001	6.506	-11.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		69.046			
	Be	9					
	Al	27					
>	Sc	45		76.667			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		89.272			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.979			
	Sb	121					
	Ba	135					
>	Tb	159		88.651			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: C101105-09 @50X

Sample Date/Time: Thursday, December 02, 2010 11:50:54
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C101105-09 @50X.7620
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	21523.679	2.460	21523.679			ug/L
	Be	9	23.333	19.795	0.001	0.06663	37.80	ug/L
	Al	27	1022894.876	7.752	5.082	330.82640	5.59	ug/L
>	Sc	45	199264.026	4.088	199264.026			ug/L
	V	51	9946.395	7.942	0.036	0.91870	5.66	ug/L
	Cr	52	13719.709	0.676	0.025	0.74840	9.70	ug/L
	Mn	55	499152.454	4.430	2.508	52.87102	8.70	ug/L
	Co	59	12667.797	4.348	0.063	1.64831	0.29	ug/L
	Ni	60	3906.828	4.387	0.019	2.38228	7.06	ug/L
	Cu	65	199501.119	0.704	1.000	126.58968	4.31	ug/L
	Zn	66	196870.977	2.325	0.804	177.45143	3.89	ug/L
>	Ge	72	243882.162	1.774	243882.162			ug/L
	As	75	4984.441	2.092	0.020	3.94569	0.62	ug/L
	Se	82	186.003	10.370	0.000	0.56233	24.45	ug/L
	Y	89	418362.006	3.870	-50540.202			ug/L
	Mo	98	8477.765	4.806	0.028	2.42435	2.97	ug/L
	Ag	107	13890.767	3.727	0.047	3.13433	4.90	ug/L
	Cd	111	1246.164	2.907	0.004	1.04224	2.88	ug/L
	Cd	114	2559.377	2.595	0.008	1.10323	2.14	mg/L
>	In	115	293558.208	2.640	293558.208			ug/L
	Sb	121	886.730	6.574	0.003	0.25359	9.30	ug/L
	Ba	135	4380.868	1.773	0.013	5.35615	3.60	ug/L
>	Tb	159	341776.452	2.504	341776.452			ug/L
	Ho	165	308303.419	3.271	-0.006			ug/L
	Tl	205	708.040	3.471	0.002	0.12597	5.32	ug/L
	Pb	208	2661465.588	1.818	7.790	452.93907	3.15	ug/L
	Bi	209	212540.939	0.766	0.266			ug/L
	Th	232	2946.695	2.092	0.008	0.48183	2.66	ug/L
	U	238	8693.383	4.482	0.025	1.45371	6.78	ug/L
	Na	23	34812.707	1.855	0.015	0.00123	60.38	mg/L
	Mg	24	259107.554	5.894	1.287	0.14671	4.69	mg/L
	K	39	1884730.872	3.198	4.878	0.17801	13.30	mg/L
	Ca	44	46413.729	1.569	0.110	0.12547	10.23	mg/L
	Fe	54	15511318.571	2.247	77.846	33.71315	6.38	mg/L
>	Sc-1	45	199264.026	4.088	199264.026			mg/L
	Kr	83	112.001	20.594	-33.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		68.425			
	Be	9					
	Al	27					
>	Sc	45		73.841			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		90.863			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		86.797			
	Sb	121					
	Ba	135					
>	Tb	159		89.681			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: C101105-10 @50X

Sample Date/Time: Thursday, December 02, 2010 11:53:42
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C101105-10 @50X.7621
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	20794.551	2.625	20794.551			ug/L
	Be	9	13.333	52.678	0.000	0.01285	302.23	ug/L
	Al	27	1673089.340	4.035	8.256	537.40480	6.91	ug/L
>	Sc	45	201717.228	2.897	201717.228			ug/L
	V	51	11509.495	8.414	0.044	1.10330	14.22	ug/L
	Cr	52	19729.780	3.242	0.054	1.62066	11.29	ug/L
	Mn	55	968229.208	5.185	4.795	101.08771	2.49	ug/L
	Co	59	13879.011	1.423	0.068	1.78657	3.97	ug/L
	Ni	60	5191.704	0.870	0.025	3.14007	3.86	ug/L
	Cu	65	103843.120	3.626	0.513	64.91515	5.76	ug/L
	Zn	66	74711.442	2.731	0.308	68.04289	2.64	ug/L
>	Ge	72	239583.538	4.245	239583.538			ug/L
	As	75	2895.374	6.410	0.012	2.30373	3.67	ug/L
	Se	82	122.668	4.981	0.000	0.04764	124.08	ug/L
	Y	89	420196.009	1.840	-48706.199			ug/L
	Mo	98	2926.622	4.150	0.009	0.77512	2.48	ug/L
	Ag	107	6850.421	2.579	0.022	1.45518	5.72	ug/L
	Cd	111	611.154	5.043	0.001	0.38825	6.45	ug/L
	Cd	114	1041.711	4.539	0.003	0.40800	6.57	mg/L
>	In	115	307588.520	3.709	307588.520			ug/L
	Sb	121	992.746	2.519	0.003	0.27237	1.43	ug/L
	Ba	135	3562.349	4.255	0.010	4.27153	2.49	ug/L
>	Tb	159	347115.704	1.985	347115.704			ug/L
	Ho	165	314600.045	1.592	-0.001			ug/L
	Tl	205	408.680	1.130	0.001	0.05522	3.86	ug/L
	Pb	208	1804185.422	1.191	5.198	302.22709	1.71	ug/L
	Bi	209	170039.970	2.001	0.134			ug/L
	Th	232	3299.540	6.716	0.009	0.53306	7.99	ug/L
	U	238	1564.196	1.721	0.004	0.25043	3.54	ug/L
	Na	23	15231.915	5.955	-0.085	-0.00705	5.07	mg/L
	Mg	24	737723.488	3.520	3.647	0.41574	5.65	mg/L
	K	39	1620894.043	3.339	3.443	0.12566	11.09	mg/L
	Ca	44	106625.629	2.810	0.406	0.46168	0.73	mg/L
	Fe	54	7406730.309	4.023	36.579	15.84144	1.29	mg/L
>	Sc-1	45	201717.228	2.897	201717.228			mg/L
	Kr	83	99.334	21.529	-46.001			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		66.107			
	Be	9					
	Al	27					
>	Sc	45		74.750			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		89.261			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.945			
	Sb	121					
	Ba	135					
>	Tb	159		91.082			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: C101105-11 @50X

Sample Date/Time: Thursday, December 02, 2010 11:56:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C101105-11 @50X.7622
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	19939.803	4.693	19939.803			ug/L
	Be	9	380.678	3.378	0.019	2.23515	2.16	ug/L
	Al	27	9966598.010	5.843	49.624	3230.20051	7.91	ug/L
>	Sc	45	200940.685	3.791	200940.685			ug/L
	V	51	8227.756	7.497	0.028	0.69619	17.07	ug/L
	Cr	52	29362.253	4.913	0.102	3.07956	12.50	ug/L
	Mn	55	5097164.246	3.018	25.372	534.89967	2.10	ug/L
	Co	59	14557.718	2.924	0.072	1.88299	5.74	ug/L
	Ni	60	4512.017	3.868	0.022	2.73669	7.92	ug/L
	Cu	65	920522.198	3.091	4.586	580.71537	6.80	ug/L
	Zn	66	1702620.667	2.260	6.802	1501.64619	3.77	ug/L
>	Ge	72	250380.746	3.845	250380.746			ug/L
	As	75	6132.802	3.565	0.024	4.74635	4.57	ug/L
	Se	82	204.003	4.274	0.000	0.67128	3.33	ug/L
	Y	89	592937.225	2.597	124035.017			ug/L
	Mo	98	54389.502	0.113	0.186	15.84901	2.09	ug/L
	Ag	107	2649.228	2.041	0.008	0.56884	2.15	ug/L
	Cd	111	5861.081	2.774	0.019	5.62859	0.97	ug/L
	Cd	114	12921.133	1.477	0.044	5.74199	0.51	mg/L
>	In	115	291817.748	1.974	291817.748			ug/L
	Sb	121	1170.110	4.533	0.004	0.34429	4.72	ug/L
	Ba	135	6305.847	2.000	0.019	7.83927	3.05	ug/L
>	Tb	159	337369.178	1.742	337369.178			ug/L
	Ho	165	306077.491	2.372	-0.000			ug/L
	Tl	205	319.342	5.327	0.000	0.03694	9.51	ug/L
	Pb	208	1075883.673	1.097	3.189	185.42993	2.55	ug/L
	Bi	209	133426.594	0.990	0.040			ug/L
	Th	232	14657.184	3.863	0.043	2.49105	3.08	ug/L
	U	238	51061.738	0.422	0.151	8.68406	1.36	ug/L
	Na	23	26915.173	1.613	-0.026	-0.00217	22.40	mg/L
	Mg	24	343562.972	0.316	1.698	0.19354	3.57	mg/L
	K	39	970408.283	5.805	0.242	0.00882	179.28	mg/L
	Ca	44	415921.733	1.591	1.949	2.21886	5.32	mg/L
	Fe	54	32597484.517	3.682	162.098	70.20078	0.36	mg/L
>	Sc-1	45	200940.685	3.791	200940.685			mg/L
	Kr	83	128.668	14.019	-16.667			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		63.390			
	Be	9					
	Al	27					
>	Sc	45		74.462			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		93.284			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		86.282			
	Sb	121					
	Ba	135					
>	Tb	159		88.525			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, December 02, 2010 11:59:18
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1011118
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Blank.7623
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	18724.731	5.550	18724.731			ug/L
	Be	9	12.000	72.648	0.000	0.01474	408.31	ug/L
	Al	27	7116.720	3.671	-0.012	-0.74923	8.10	ug/L
>	Sc	45	189266.963	3.785	189266.963			ug/L
	V	51	2104.757	17.516	-0.002	-0.06019	91.51	ug/L
	Cr	52	6981.902	4.131	-0.007	-0.21383	26.55	ug/L
	Mn	55	2459.557	4.952	0.010	0.20847	1.62	ug/L
	Co	59	90.347	48.553	-0.000	-0.00191	287.95	ug/L
	Ni	60	35.680	6.534	-0.000	-0.02585	4.65	ug/L
	Cu	65	3647.575	6.449	0.017	2.10989	4.62	ug/L
	Zn	66	2190.385	7.275	0.006	1.25718	7.63	ug/L
>	Ge	72	230085.879	2.688	230085.879			ug/L
	As	75	43.987	120.445	-0.000	-0.03314	131.74	ug/L
	Se	82	106.668	2.864	-0.000	-0.05232	87.95	ug/L
	Y	89	420488.420	3.171	-48413.788			ug/L
	Mo	98	221.419	5.955	0.000	0.02656	18.49	ug/L
	Ag	107	407.347	18.892	0.001	0.05024	37.53	ug/L
	Cd	111	159.292	12.324	-0.000	-0.03521	58.51	ug/L
	Cd	114	78.771	7.128	-0.000	-0.00037	668.71	mg/L
>	In	115	303748.985	1.920	303748.985			ug/L
	Sb	121	35.333	25.524	-0.000	-0.01399	18.14	ug/L
	Ba	135	14.000	14.286	-0.000	-0.05025	4.91	ug/L
>	Tb	159	346983.156	0.555	346983.156			ug/L
	Ho	165	316047.561	1.873	0.003			ug/L
	Tl	205	131.335	13.818	-0.000	-0.00796	53.94	ug/L
	Pb	208	488.008	11.020	0.000	0.02766	32.27	ug/L
	Bi	209	124262.194	2.235	0.002			ug/L
	Th	232	22.667	18.368	-0.000	-0.01208	5.57	ug/L
	U	238	18.667	12.372	-0.000	-0.00535	6.87	ug/L
	Na	23	4949.452	34.964	-0.134	-0.01117	5.97	mg/L
	Mg	24	5505.933	72.205	0.015	0.00174	133.70	mg/L
	K	39	766526.123	1.924	-0.545	-0.01989	22.98	mg/L
	Ca	44	34635.035	0.030	0.060	0.06850	11.27	mg/L
	Fe	54	28483.266	1.950	0.019	0.00813	14.52	mg/L
>	Sc-1	45	189266.963	3.785	189266.963			mg/L
	Kr	83	122.001	13.419	-23.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		59.527			
	Be	9					
	Al	27					
>	Sc	45		70.136			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		85.722			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.810			
	Sb	121					
	Ba	135					
>	Tb	159		91.047			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: SEQ-CCV

Sample Date/Time: Thursday, December 02, 2010 12:02:05
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCV.7624
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	20040.765	2.965	20040.765			ug/L
	Be	9	8409.662	4.699	0.419	50.42647	2.15	ug/L
	Al	27	640936.249	3.246	2.972	193.46549	3.52	ug/L
>	Sc	45	212171.823	1.595	212171.823			ug/L
	V	51	403522.507	4.436	1.888	47.73081	2.91	ug/L
	Cr	52	354621.505	5.070	1.627	48.91469	3.63	ug/L
	Mn	55	478682.129	4.269	2.254	47.52839	5.89	ug/L
	Co	59	410274.137	2.812	1.933	50.56078	2.43	ug/L
	Ni	60	88577.324	4.976	0.417	51.63301	3.90	ug/L
	Cu	65	93894.090	9.299	0.440	55.69514	8.82	ug/L
	Zn	66	53380.935	6.373	0.221	48.69557	3.34	ug/L
>	Ge	72	237805.603	4.303	237805.603			ug/L
	As	75	63289.971	2.858	0.266	52.24519	1.51	ug/L
	Se	82	5949.502	4.944	0.025	50.59231	1.63	ug/L
	Y	89	426860.466	4.041	-42041.742			ug/L
	Mo	98	181972.193	3.109	0.578	49.25972	2.66	ug/L
	Ag	107	239139.334	1.741	0.760	50.94480	2.24	ug/L
	Cd	111	54909.644	3.491	0.174	50.36684	2.76	ug/L
	Cd	114	120040.370	2.646	0.381	49.74948	1.90	mg/L
>	In	115	314502.441	0.740	314502.441			ug/L
	Sb	121	170987.690	1.437	0.543	50.00018	1.95	ug/L
	Ba	135	43068.580	1.781	0.119	50.36094	2.79	ug/L
>	Tb	159	361265.509	1.664	361265.509			ug/L
	Ho	165	326461.940	1.201	-0.004			ug/L
	Tl	205	235751.753	1.964	0.652	51.56110	0.50	ug/L
	Pb	208	307709.183	1.227	0.851	49.48612	2.64	ug/L
	Bi	209	126754.696	1.765	-0.005			ug/L
	Th	232	313564.349	0.861	0.868	50.07683	0.97	ug/L
	U	238	313411.000	2.779	0.867	49.80282	1.33	ug/L
	Na	23	9426046.687	5.037	44.268	3.68494	4.88	mg/L
	Mg	24	6891267.794	2.990	32.464	3.70059	2.19	mg/L
	K	39	25787951.198	6.621	117.034	4.27132	8.32	mg/L
	Ca	44	962174.321	4.496	4.414	5.02452	5.97	mg/L
	Fe	54	2478125.865	4.970	11.554	5.00395	6.32	mg/L
>	Sc-1	45	212171.823	1.595	212171.823			mg/L
	Kr	83	126.001	10.409	-19.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		63.711			
	Be	9	100.853				
	Al	27	77.386				
>	Sc	45		78.624			
	V	51	95.462				
	Cr	52	97.829				
	Mn	55	95.057				
	Co	59	101.122				
	Ni	60	103.266				
	Cu	65	111.390				
	Zn	66	97.391				
>	Ge	72		88.599			
	As	75	104.490				
	Se	82	101.185				
	Y	89					
	Mo	98	98.519				
	Ag	107	101.890				
	Cd	111	100.734				
	Cd	114					
>	In	115		92.989			
	Sb	121	100.000				
	Ba	135	100.722				
>	Tb	159		94.795			
	Ho	165					
	Tl	205	103.122				
	Pb	208	98.972				
	Bi	209					
	Th	232	100.154				
	U	238	99.606				
	Na	23	73.699				
	Mg	24	74.012				
	K	39	85.426				
	Ca	44	100.490				
	Fe	54	100.079				
>	Sc-1	45					
	Kr	83					

Method 200.8 - Summary Report

Sample ID: SEQ-CCB

Sample Date/Time: Thursday, December 02, 2010 12:05:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCB.7625
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	19221.538	3.611	19221.538			ug/L
	Be	9	9.333	32.733	-0.000	-0.00515	377.79	ug/L
	Al	27	8803.535	3.708	-0.001	-0.08380	242.58	ug/L
>	Sc	45	184273.135	2.848	184273.135			ug/L
	V	51	2078.229	11.160	-0.002	-0.05688	54.37	ug/L
	Cr	52	7402.384	3.003	-0.004	-0.11575	26.80	ug/L
	Mn	55	1518.324	12.794	0.005	0.10807	17.30	ug/L
	Co	59	194.296	12.109	0.001	0.01332	24.63	ug/L
	Ni	60	110.294	14.043	0.000	0.02497	42.24	ug/L
	Cu	65	2814.782	4.241	0.013	1.60671	7.65	ug/L
	Zn	66	1920.295	3.883	0.004	0.94874	7.27	ug/L
>	Ge	72	236678.634	2.594	236678.634			ug/L
	As	75	102.110	94.335	0.000	0.01387	560.48	ug/L
	Se	82	122.668	20.124	0.000	0.05699	330.77	ug/L
	Y	89	420970.426	5.408	-47931.782			ug/L
	Mo	98	407.876	14.034	0.001	0.07729	18.23	ug/L
	Ag	107	608.030	6.250	0.001	0.09266	8.19	ug/L
	Cd	111	174.880	4.251	-0.000	-0.02254	30.94	ug/L
	Cd	114	103.378	27.017	0.000	0.00959	120.74	mg/L
>	In	115	307468.581	1.785	307468.581			ug/L
	Sb	121	389.345	2.829	0.001	0.09183	2.02	ug/L
	Ba	135	67.334	1.715	0.000	0.01165	3.87	ug/L
>	Tb	159	360573.627	1.150	360573.627			ug/L
	Ho	165	324240.936	1.394	-0.008			ug/L
	Tl	205	227.337	3.556	0.000	0.01195	11.58	ug/L
	Pb	208	516.675	9.421	0.001	0.02923	27.55	ug/L
	Bi	209	123380.074	1.449	-0.014			ug/L
	Th	232	147.335	8.294	0.000	0.00774	28.12	ug/L
	U	238	107.334	14.946	0.000	0.00866	29.32	ug/L
	Na	23	30085.149	13.810	0.003	0.00023	682.97	mg/L
	Mg	24	3222.836	9.572	0.004	0.00047	53.92	mg/L
	K	39	848925.656	2.879	0.013	0.00047	1779.51	mg/L
	Ca	44	35088.220	0.344	0.068	0.07686	7.62	mg/L
	Fe	54	26433.212	6.441	0.012	0.00507	79.56	mg/L
>	Sc-1	45	184273.135	2.848	184273.135			mg/L
	Kr	83	110.001	3.636	-35.334			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		61.106			
	Be	9					
	Al	27					
>	Sc	45		68.286			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		88.179			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.909			
	Sb	121					
	Ba	135					
>	Tb	159		94.613			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					