

Wednesday, January 27, 2010

Page 1 of 4  
REQUEST NUMBER: 10-1433

**LOS ALAMOS**  
**NATIONAL LABORATORY**

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-1433

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 1/27/2010

TURNAROUND/REPORT DUE: 2/26/2010

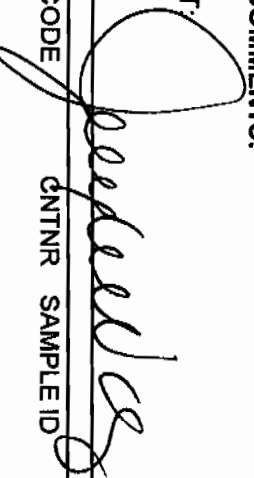
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
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SW-846:6020		1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:6020						
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
SW-846:6850						
		1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:7471A						
		1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	

SW-846:9012A

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PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:9012A		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	

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Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1433

**LOS ALAMOS**

REQUEST NUMBER: 10-1433

**NATIONAL LABORATORY**

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

## LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7884	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7932	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7931	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7938	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7933	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7939	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7936	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7935	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7934	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7940	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7937	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8056	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8057	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8080	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8080	1	POLY	SW-846:6850	Ice	W
RE15-10-8080	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8079	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8079	1	POLY	SW-846:6850	Ice	W
RE15-10-8079	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8077	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8077	1	POLY	SW-846:6850	Ice	W
RE15-10-8077	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:

Date Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7883

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA: QBT3		ALLH	
TIME COLLECTED (HH:MM)		1445		SUB-MEDIA: TUFF 1		NA	
PRS ID: 15-008(b)		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: 15-610711		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		0.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		0.4		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		S		EXCAVATED: YES <input checked="" type="radio"/> NO <input type="radio"/> NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES <input checked="" type="radio"/> NO <input type="radio"/> NA			
BOREHOLE: YES <input checked="" type="radio"/> NO <input type="radio"/> NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	1 L POLY IL RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: moist sandy brown clay

FD: RE15-10-8057

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b-66 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  52 dpm  
Beta/Gamma  $\leq$  2120 dpm

HF negative

PID  $\frac{\text{Ambient}}{\text{Reading}} = \frac{0.0}{0.0}$  ppm

COLLECTED BY (PRINT)

TL McFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY (Printed Name) MARIN (Signature) <i>Jan R Marin</i>	Date/Time 1/25/10 16:55	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 1/25/10 1655
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7884

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA: OBT3		OK	
TIME COLLECTED (HH:MM)		1500		SUB-MEDIA: TUFF 1			
PRS ID:	15-008(b)	OK		SAMPLE TECH CODE: HA			
LOCATION ID:	15-610711	↓		FIELD QC TYPE: NA			
LOCATION TYPE:	GENERIC	✓		FIELD PREP: NA			
TOP DEPTH:	0	3.0		SAMPLE USAGE: INV		✓	
BOTTOM DEPTH:	0	3.8		SCREEN/PORT DESC: NA			
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	y	
1		H3	500 ML POLY	Ice	y	
1		Met+U+CLO4+CN	TOTAL POLY 1L RS 01-11-10	Ice	y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	y	

SAMPLE DESC: pinkish gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-66, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  91 dpm  
Beta/Gamma  $\leq$  2410 dpm

PID  $\frac{\text{Ambient}}{\text{Reading}} \frac{0.4}{4.7}$  ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) MARIN (Signature) <i>John Marin</i>	Date/Time 1/25/10 16:55	RECEIVED BY (Printed Name) Sherri Greenwood (Signature) <i>Sherri Greenwood</i>	Date/Time 1/25/10 1655
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7931

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		1342		SUB-MEDIA:		TUFF 1	
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE:		HA	
LOCATION ID:	15-610735	↓		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:		NA	
TOP DEPTH:	0	0.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA		NO/NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 GAL POLY 1L RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown clayey silt, roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

86-82, mesa top  
S of fire rd

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

Alpha  $\leq$  39 dpm  
Beta/Gamma  $\leq$  2370 dpm

PID  $\frac{\text{Ambient}}{\text{Reading}} \frac{0.0}{0.0}$  ppm

COLLECTED BY (PRINT)

TL McFarlane

REVIEWED BY (PRINT)

A. Goumas

RELINQUISHED BY (Printed Name) MARIN (Signature) J. R. Marin	Date/Time 1/25/10 1655	RECEIVED BY (Printed Name) Sherrin Sherwood (Signature) Sherrin Sherwood	Date/Time 1/25/10 1655
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7932

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA:	OBT3		ok
TIME COLLECTED (HH:MM)		1406		SUB-MEDIA:	TUFF 1		L
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	15-610735	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	3.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	4.0		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	R		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA	NO			BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 GAL POLY 1L RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Gray tuff, few small rocks

SAMPLE COMMENTS:

Hit tuff at 3.5'

LOCATION DESC:

86-82 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  39 dpm  
Beta/Gamma  $\leq$  2490 dpm

PID  $\frac{\text{Ambient}}{\text{Reading}} = \frac{0.2}{1.3}$  ppm

COLLECTED BY (PRINT)

TLMcfarland

REVIEWED BY (PRINT)

A. Govmas

RELINQUISHED BY (Printed Name) MARIN (Signature) <i>John R. Marin</i>	Date/Time 1/25/10 16:58	RECEIVED BY (Printed Name) <i>Sheniferwood</i> (Signature) <i>Sheniferwood</i>	Date/Time 1/25/10 16:56
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7933

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:		OBT3
TIME COLLECTED (HH:MM)		1339	SUB-MEDIA:		TUFF.1
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:		HA
LOCATION ID:	15-610736	↓	FIELD QC TYPE:		NA
LOCATION TYPE:	GENERIC	↓	FIELD PREP:		NA
TOP DEPTH:	0	0.0	SAMPLE USAGE:		INV
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES/NO/NA		
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA	WATER FLOWING: YES/NO/NA		
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA	BOREHOLE DIRECTION: NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISQU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY IL RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty clay, some roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

8b-81, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

Alpha  $\leq$  39 dpm  
Beta/Gamma  $\leq$  2440 dpm

PID  $\frac{\text{Ambient}}{\text{Reading}} \frac{0.0}{0.0}$  ppm

COLLECTED BY (PRINT)

REVIEWED BY (PRINT)

TL McFarlane

R Saunders

RELINQUISHED BY (Printed Name) MARIN (Signature) Jan R. Marin	Date/Time 1/25/10 16:56	RECEIVED BY (Printed Name) (Signature) [Signature]	Date/Time
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7934

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1428		SUB-MEDIA:		TUFF 1	
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE:		HA	
LOCATION ID:	15-610736	↓		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:		NA	
TOP DEPTH:	0	3.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	3.10 3.9		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO/NA		NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA		NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 GAL POLY IL RS 01-10-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brownish grey tuff

SAMPLE COMMENTS:

hit tuff at 1.0 ft

LOCATION DESC:

8b-81 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 85 dpm  
Beta/Gamma = 2880 dpm

PID Ambient 0.0  
Reading 0.0 ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

A. Groumas

RELINQUISHED BY (Printed Name) MARIN (Signature) <i>John A. Marin</i>	Date/Time 1/25/10 1656	RECEIVED BY (Printed Name) <i>Sheri Sherwood</i> (Signature) <i>Sheri Sherwood</i>	Date/Time 1/25/10 1656
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7935

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA: QBT3		ALLH	
TIME COLLECTED (HH:MM)		1347		SUB-MEDIA: TUFF 1		NA	
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE:	HA	ok	
LOCATION ID:	15-610737	↓		FIELD QC TYPE:	NA	↓	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA	↓	
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV	↓	
BOTTOM DEPTH:	0	0.3		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	TGAL POLY 1L RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty clay, small rocks, moist

(FR: RE15-10-8079)

SAMPLE COMMENTS:

NA

LOCATION DESC:

86-78, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

Alpha = 104 dpm

Beta/Gamma = 4540 dpm

PID  $\frac{\text{Ambient Reading}}{0.0} = 0.0$  ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) A. Gornas

RELINQUISHED BY (Printed Name) MAIA IN (Signature) Jan R. Maain	Date/Time 1/25/10 1656	RECEIVED BY (Printed Name) Sherri Newwood (Signature) Sherri Newwood	Date/Time 1/25/10 1656
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time



**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7936

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA: OBT3		ok	
TIME COLLECTED (HH:MM)		1426		SUB-MEDIA: TUFF 1		↓	
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID:	15-610737	↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE:	GENERIC	↓		FIELD PREP: NA		↓	
TOP DEPTH:	0	2.9		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH:	0	4.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	R		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 GAL POLY IL RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Gray tuff

FD RE15-10-8056

SAMPLE COMMENTS:

NA

LOCATION DESC:

86-78, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 72 dpm  
Beta/Gamma = 2710 dpm

PID  $\frac{\text{Ambient}}{\text{Reading}} = \frac{0.0}{0.0}$  ppm  $\frac{0.0}{0.0}$

COLLECTED BY (PRINT)

JL McFarlane

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY (Printed Name) MARIN (Signature) J. A. Marin	Date/Time 1/25/10 16:56	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 1/25/10 16:56
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7937

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1457		SUB-MEDIA:		TUFF 1	
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE:		HA	
LOCATION ID:	15-610738	↓		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:		NA	
TOP DEPTH:	0	0.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 GAL POLY IL RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty sand, some rocks

SAMPLE COMMENTS:

NA

LOCATION DESC:

86-80 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

Alpha  $\leq$  85 dpm  
Beta/Gamma  $\leq$  2330 dpm

PID  $\frac{\text{Ambient}}{\text{Reading}} \frac{0.1}{0.2}$  ppm

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) <u>MAVIN</u> (Signature) <u>[Signature]</u>	Date/Time 1/25/10 16:56	RECEIVED BY (Printed Name) <u>Sherrif Sherwood</u> (Signature) <u>[Signature]</u>	Date/Time 1/25/10 16:56
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7938

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA: OBT3		ok	
TIME COLLECTED (HH:MM)		1525		SUB-MEDIA: TUFF 1		↓	
PRS ID: 15-008(b)		ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID: 15-610738		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		2.9		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		3.7		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		R		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 GAL POLY 1L RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Gray tuff

FR RE15-10-8080

SAMPLE COMMENTS:

Hit tuff at 2.9'

LOCATION DESC:

8b-80 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 11 dpm

Beta/Gamma = 2060 dpm

PID  $\frac{\text{Ambient Reading}}{1.9} = \frac{0.0}{1.9} \text{ ppm}$ 

COLLECTED BY (PRINT)

T. McFarland

REVIEWED BY (PRINT) R. Saunders

RELINQUISHED BY (Printed Name) MARIN (Signature) [Signature]	Date/Time 1/25/10 16:56	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) [Signature]	Date/Time 1/25/10 16:56
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7939

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1522		SUB-MEDIA:		TUFF 1	
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE:		HA	
LOCATION ID:	15-610739	↓		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:		NA	
TOP DEPTH:	0	0.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 GAL POLY 1L RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

moist brown silty sand, some clay

SAMPLE COMMENTS:

NA

LOCATION DESC:

8b-79 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

Alpha = 27 dpm  
Beta/Gamma = 1596 dpm

PID Ambient 0.0  
Reading 0.0 ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) MARIN (Signature) <i>John R. Marin</i>	Date/Time 1/25/10 16:56	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 1/25/10 16:56
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7940

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA: QBT3		ok	
TIME COLLECTED (HH:MM)		1600		SUB-MEDIA: TUFF1		↓	
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID:	15-610739	↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE:	GENERIC	↓		FIELD PREP: NA		↓	
TOP DEPTH:	0	3.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH:	0	3.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	R		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	1 L POLY IL RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Gray, tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

86-79 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\pm$  22 dpm  
Beta/Gamma  $\pm$  7940 dpm

PID  $\frac{\text{Ambient}}{\text{Reading}} \frac{0.2}{0.2}$  ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) T L McFarland

RELINQUISHED BY (Printed Name) MARIN (Signature) J. R. Marin	Date/Time 1/25/10 16:56	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 1/25/10 1656
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8056

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1426		SUB-MEDIA:		TUFF 1	
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE:		HA	
LOCATION ID:	UNK	15-610737		FIELD QC TYPE:		ED	
LOCATION TYPE:	GENERIC	ok		FIELD PREP:		NA	
TOP DEPTH:	0	2.9		SAMPLE USAGE:		QC	
BOTTOM DEPTH:	0	4.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	R		EXCAVATED: YES/NO/NA		NO/NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	72m 1/25/10 8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 GAL POLY 1 liter 1.11.10 <i>ok</i>	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 15-10-8056 <sup>Re 1/25/10</sup>  
7936

Gray tuff

SAMPLE COMMENTS:

LOCATION DESC: 8b-78

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  72 dpm  
Beta/Gamma  $\leq$  2710 dpmPID  $\frac{\text{Ambient Reading}}{0.0} = 0.0$  ppm  $\frac{0.0}{0.0}$ 

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY (Printed Name) <i>MAVIN</i> (Signature) <i>John R. Marvin</i>	Date/Time 1/25/10 16:56	RECEIVED BY (Printed Name) <i>Sherry Newwood</i> (Signature) <i>Sherry Newwood</i>	Date/Time 1/25/10 1656
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8057

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:		OBT3
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:		TUFF 1
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:		HA
LOCATION ID:	UNK	15-61074	FIELD QC TYPE:		FD
LOCATION TYPE:	GENERIC	ok	FIELD PREP:		NA
TOP DEPTH:	0	0.0	SAMPLE USAGE:		QC
BOTTOM DEPTH:	0	0.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES/NO/NA		
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA	WATER FLOWING: YES/NO/NA		
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA	BOREHOLE DIRECTION: NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	y	
1		H3	500 ML POLY	Ice	y	
1		Met+U+CLO4+C N	1 GAL POLY 1 liter 1.11.10	Ice	y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	y	

SAMPLE DESC: QC Sample of RE 15-10-7883 1RM 1/26/10  
7883  
moist brown sandy clay

SAMPLE COMMENTS:

NA

LOCATION DESC:

8b-66 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

Alpha  $\leq$  52 dpm  
Beta/Gamma  $\leq$  2120 dpm

PID  $\frac{\text{Ambient Reading}}{0.0} = 0.0$  ppm

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY (Printed Name) MARIN (Signature) <i>Jan R. Marin</i>	Date/Time 1/25/10 16:57	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 1/25/10 1657
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8079

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA: NA		OK	
TIME COLLECTED (HH:MM)		1450		SUB-MEDIA: OTHER			
PRS ID: 15-008(b)		OK		SAMPLE TECH CODE: DC			
LOCATION ID: UNK		15-610737		FIELD QC TYPE: FR			
LOCATION TYPE: GENERIC		OK		FIELD PREP: UF			
TOP DEPTH: 0				SAMPLE USAGE: QC			
BOTTOM DEPTH: 0				SCREEN/PORT DESC:		NA	
FIELD MATRIX: W				EXCAVATED: YES/NO NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO NA			
BOREHOLE: YES/NO NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1	↓	SW-846:6850	250 ML POLY	Ice	Y	
1	↓	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of

RE15-10-7935

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 72m dpm  
Beta/Gamma = 1/25/10 dpm

PID  $\frac{\text{Ambient Reading}}{72m 1/25/10} = \text{ppm}$

COLLECTED BY (PRINT)

ThMcFarlane

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIAN	1/25/10	(Printed Name) Sherry Sherwood	1/25/10
(Signature) [Signature]	16:57	(Signature) [Signature]	1657
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

EVENT NAME: 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8080

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/25/2010		MEDIA:	NA		OK
TIME COLLECTED (HH:MM)		15:35		SUB-MEDIA:	OTHER		
PRS ID:	15-008(b)	OK		SAMPLE TECH CODE:	DC		
LOCATION ID:	UNK	15-610738		FIELD QC TYPE:	ER		
LOCATION TYPE:	GENERIC	OK		FIELD PREP:	UF		
TOP DEPTH:	0			SAMPLE USAGE:	QC		
BOTTOM DEPTH:	0			SCREEN/PORT DESC:	NA		
FIELD MATRIX:	W			EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7938

SAMPLE COMMENTS: Rinsate

LOCATION DESC:

86-80

FIELD SCREENING/MEASUREMENT RESULTS:

gRM 1/25/10  
Alpha =          dpm  
Beta/Gamma =          dpm

gRM 1/25/10  
PID Ambient Reading = ppm

COLLECTED BY (PRINT)

J. MARIN

REVIEWED BY (PRINT)

TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	MARIN	(Printed Name) Sherri Sherwood	1/25/10
(Signature) J. R. Marin	1/25/10 16:57	(Signature) Sherri Sherwood	1657
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

## Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7883

7884

7931

7932

7933

7934

7935

7936

7937

7938

7939

RE15-10-7940

8056

8057

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

.....

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8080 FR

8079 FR

Reason:

.....

Print Last Name MARIN

Signature

J. R. Marin

Date

1/25/10



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023

Request or PO Number:

Client Sample ID: RE15-10-7883

ARS Sample ID: ARS2-10-00023-001

Sample Collection Date: 01/25/10 14:45

Date Received: 01/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDL	TBU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	48.44	32.43	36.09	32.90		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	49.89	16.45	17.69	17.55		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	19.62	7.19	1.50	7.21		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	0.79	0.10	0.79		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.14	0.15	0.06	0.15		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.33	0.43	0.11	0.43		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	0.69	0.41	0.18	0.41		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.16	0.60	0.26	0.90		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.10	0.86	0.28	0.86		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.30	3.64	1.41	3.84		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.21	0.24	0.10	0.24		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.50

*M. J. Eder*  
Quality Assurance Review

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ARS Sample Delivery Group: ARS2-10-00023

Client Sample ID: RE15-10-7884

Sample Collection Date: 01/25/10 15:00

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00023-002

Date Received: 01/26/10 00:00

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MNC	TML	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Trace/Cham Recovery
GROSS ALPHA	29.95	25.78	31.78	26.03		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	42.70	15.72	18.25	14.57		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	23.70	8.15	1.61	8.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.50	0.11	10.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.16	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	13.74	0.07	13.74		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.15	0.24	0.14	0.24		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	2.30	0.63	0.17	0.64		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	0.73	0.40	0.57	0.40		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.93	0.87	0.16	0.87		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	4.36	3.03	1.22	3.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.08	0.14	0.06	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.92

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ARS Sample Delivery Group: ARS2-10-00023

Request or PO Number:

Client Sample ID: RE15-10-7931

ARS Sample ID: ARS2-10-00023-003

Sample Collection Date: 01/25/10 13:42

Date Received: 01/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MC	YBI	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	33.20	28.81	30.56	27.22		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	47.72	17.26	19.68	18.22		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.06	0.12	0.10	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-1.19	-30.61	4.37	-30.61		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.29	0.10	10.29		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.10	0.12	0.08	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.06	0.03	0.06	0.03		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.28	0.32	0.12	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.21	0.47	0.15	0.47		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.08	0.76	0.27	0.76		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.43	0.80	0.31	0.80		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	2.51	2.64	1.21	2.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.83	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 1.43

*Matthew J. Edon*  
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ARS Sample Delivery Group: ARS2-10-00023

Request or PO Number:

Client Sample ID: RE15-10-7932

ARS Sample ID: ARS2-10-00023-004

Sample Collection Date: 01/25/10 14:06

Date Received: 01/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qval	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	15.13	22.44	38.20	22.51		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	43.35	15.72	18.71	16.59		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-2.70	-28.07	4.29	-28.07		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-40	0.05	0.13	0.11	0.13		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.23	0.20	0.08	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.24	0.20	0.07	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	11.12	0.12	11.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.61	0.49	0.09	0.49		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	0.96	0.68	0.62	0.68		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	2.18	0.97	0.17	0.96		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	2.90	3.24	1.43	3.31		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.39	0.30	0.10	0.30		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 1.01

*[Signature]*  
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ARS Sample Delivery Group: ARS2-10-00023

Request or PO Number:

Client Sample ID: RE18-10-7933

ARS Sample ID: ARS2-10-00023-005

Sample Collection Date: 01/25/10 13:39

Date Received: 01/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDX	TPH	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Trace/Chem Recovery
GROSS ALPHA	75.13	40.22	36.09	41.26		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	58.76	17.74	17.69	19.15		pCi/g	EPA 906.0M	1/26/2010	ME	N/A
NA-22	0.05	0.09	0.07	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	15.44	5.66	1.18	5.68		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	7.71	0.08	7.71		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.14	0.13	0.05	0.13		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	8.01	0.09	8.01		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	0.97	0.35	0.10	0.35		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
BA-228	0.97	0.50	0.21	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.92	0.70	0.29	0.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.44	3.80	1.34	4.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.04	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.33

  
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ARS Sample Delivery Group: ARS2-10-00023

Request or PO Number:

Client Sample ID: RE15-10-7934

ARS Sample ID: ARS2-10-00023-006

Sample Collection Date: 01/25/10 14:28

Date Received: 01/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	-2.35	9.38	31.78	9.58		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	45.35	15.44	15.25	16.41		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	24.06	8.16	1.99	8.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.38	0.11	10.38		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.15	0.16	0.07	0.16		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.34	0.32	0.12	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.24	0.50	0.17	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.44	0.86	0.28	0.86		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.77	0.58	0.21	0.58		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	3.71	3.36	1.38	3.49		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.05	0.18	0.09	0.18		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.98

*Matthew J. Edger*  
Quality Assurance Review

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ARS Sample Delivery Group: ARS2-10-00023

Client Sample ID: RE18-10-7935

Sample Collection Date: 01/25/10 13:47

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00023-007

Date Received: 01/26/10 00:00

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TEN	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	47.69	31.52	30.56	32.08		pCi/g	EPA 909.0M	1/26/2010	ME	N/A
GROSS BETA	141.19	28.34	19.68	30.67		pCi/g	EPA 909.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	0.43	4.80	2.88	4.80		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.14	0.12	0.06	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.01	0.04	0.05	0.04		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	0.65	0.10	0.65		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.26	0.42	0.11	0.43		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
BA-228	0.29	0.45	0.37	0.45		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	2.38	1.28	0.43	1.28		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	41.91	6.65	1.77	11.85		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.83	0.68	0.23	0.68		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.46

*Matthew J. Eden*  
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ARS Sample Delivery Group: ARS2-10-00023

Request or PO Number:

Client Sample ID: WE15-10-7936

ARS Sample ID: ARS2-10-00023-008

Sample Collection Date: 01/26/10 14:26

Date Received: 01/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 01/26/10 14:28

Analyte Description	Analysis Results	Analysis Error +/- 2 s	MDC	TBU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	28.91	27.32	38.20	27.55		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	39.99	15.87	18.71	16.31		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-1.94	-30.91	3.71	-30.91		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	11.83	0.12	11.53		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.10	0.11	0.08	0.11		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	15.08	0.07	15.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	11.99	0.13	11.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.37	0.52	0.16	0.52		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
BA-228	1.72	1.07	0.31	1.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.04	0.45	0.39	0.46		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.36	3.67	1.46	3.87		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.45	0.46	0.17	0.46		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.38

*Matthew J. Edin*  
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ARS Sample Delivery Group: ARS2-10-00023

Request or PO Number:

Client Sample ID: RE15-10-7937

ARS Sample ID: ARS2-10-00023-009

Sample Collection Date: 01/25/10 14:57

Date Received: 01/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 01/26/10 14:25

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MC	TM	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	50.41	33.85	34.09	34.40		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	42.67	15.79	17.69	16.64		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.18	0.21	0.10	0.21		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.44	-6.08	2.30	-6.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.29	0.10	10.29		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.12	0.18	0.08	0.18		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.07	0.11	0.06	0.11		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	1.94	0.98	0.23	0.98		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.28	0.62	0.27	0.62		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	0.69	0.69	0.38	0.69		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	4.21	2.20	0.98	2.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	34.62	7.38	2.38	10.82		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	1.17	0.93	0.33	0.93		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.63

*Matt J. Elder*  
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ARS Sample Delivery Group: ARS2-10-00023

Request or PQ Number:

Client Sample ID: RE15-10-7938

ARS Sample ID: ARS2-10-00023-010

Sample Collection Date: 01/25/10 15:10

Date Received: 01/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MAR	THI	Q-Val	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	48.40	31.49	31.78	32.03		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	54.09	17.17	18.23	18.40		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	24.77	8.28	1.59	8.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	10.40	0.11	10.40		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
BU-152	0.00	54.99	0.12	54.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.29	0.50	0.17	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	2.55	0.96	0.28	0.96		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.44	0.98	0.29	0.98		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	0.66	1.84	0.98	1.03		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.01	0.09	0.08	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.57

*Matthew J. Edger*  
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023

Request or PU Number:

Client Sample ID: RE15-10-7939

ARS Sample ID: ARS2-10-00023-011

Sample Collection Date: 01/25/10 15:22

Date Received: 01/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	unc	TPH	Dist	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Trace/Cham Recovery
GROSS ALPHA	29.37	25.20	30.56	25.43		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	61.21	18.52	19.58	19.97		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.10	-0.00	2.94	-0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.06	0.08	0.07	0.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.10	0.12	0.06	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.37	0.28	0.10	0.28		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.14	0.48	0.19	0.48		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	0.06	0.78	0.24	0.78		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.73	1.39	0.46	1.39		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	13.79	5.54	1.92	5.54		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.28	0.32	0.14	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.19

*Matthew J. Edin*  
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

NELAP Certificate# 30658

NELAP Certificate # E87538



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023

Client Sample ID: RE15-10-7940

Sample Collection Date: 01/25/10 16:00

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00023-012

Date Received: 01/26/10 00:00

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	mdc	TPH	Q1st	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	33.50	28.77	38.20	29.06		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	44.37	16.15	18.71	17.04		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	26.35	6.47	1.57	6.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	10.25	0.10	10.25		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.00	0.03	0.06	0.03		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.18	0.25	0.12	0.25		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-211	1.72	0.54	0.15	0.55		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.36	0.59	0.32	0.59		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.51	0.51	0.19	0.51		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	4.08	3.73	1.44	3.85		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.33	0.35	0.14	0.35		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.46

*Matthew J. Foley*  
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023

Client Sample ID: RE15-10-8056

Sample Collection Date: 01/25/10 14:26

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00023-013

Date Received: 01/26/10 00:00

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MnC	TpH	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	70.21	39.02	36.09	39.96		pCi/g	EPA 909.0M	1/26/2010	ME	N/A
GROSS BETA	45.44	16.39	17.69	17.30		pCi/g	EPA 909.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	20.01	10.74	2.74	10.77		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	11.82	0.12	11.82		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.53	0.33	0.09	0.35		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	15.46	0.07	15.46		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	1.18	0.63	0.14	0.63		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.68	0.61	0.21	0.62		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.57	0.81	0.32	0.81		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.48	0.83	0.38	0.85		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	0.60	2.94	1.58	2.94		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.31	0.42	0.18	0.42		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.32

*Matthew J. Eden*  
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30558

NELAP Certificate # EB7558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: AR52-10-00023

Request or PO Number:

Client Sample ID: RE15-10-8097

ARS Sample ID: AR52-10-00023-014

Sample Collection Date: 01/25/10 14:45

Date Received: 01/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TWU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chain Recovery
GROSS ALPHA	39.18	28.78	31.78	29.17		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	43.67	18.98	18.25	16.85		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.78	-15.99	3.11	-15.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-60	0.00	10.50	0.11	10.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.23	0.20	0.07	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.61	0.50	0.12	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.16	0.46	0.13	0.47		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.32	0.61	0.28	0.61		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.82	0.84	0.18	0.84		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.20	3.80	1.31	3.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.01	0.09	0.08	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 3.76

*Matthew J. Ecker*  
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30558

NELAP Certificate # E87558



## DATA VALIDATION COVER SHEET

5121-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-1433 VALIDATION DATE: 03/04/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- |                                                  |                                          |                                                 |                                                               |
|--------------------------------------------------|------------------------------------------|-------------------------------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> TPH-GRO                 | <input type="checkbox"/> HIGH EXPLOSIVES | <input type="checkbox"/> DIOXIN FURANS          | <input checked="" type="checkbox"/> LCMSMS PERCHLORATES       |
| <input type="checkbox"/> TPH-DRO                 | <input type="checkbox"/> METALS          | <input type="checkbox"/> PCB CONGENERS          | <input type="checkbox"/> ORGANOCHLORINE                       |
| <input type="checkbox"/> GENERAL CHEMISTRY       | <input type="checkbox"/> RADIOCHEMISTRY  | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | <input type="checkbox"/> PESTICIDES/POLYCHLORINATED BIPHENYLS |
| <input type="checkbox"/> OTHER (DESCRIBE): _____ |                                          |                                                 |                                                               |

## Section II. Completeness Check


- | YES                                 | NO                       | N/A                                 | (CHECK ONE)                 | YES                                 | NO                       | N/A                                 | (CHECK ONE)              |
|-------------------------------------|--------------------------|-------------------------------------|-----------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 1. CHAIN-OF-CUSTODY FORM(S) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 6. RAW/BSS DATA          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 2. CASE NARRATIVE           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 7. QUALITY CONTROL FORMS |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 3. SAMPLE RESULT FORMS      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 8. QUANTITATION REPORTS  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 4. SAMPLE CHROMATOGRAMS     | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. TICS MASS SPECTRA    |

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


1. It should be noted that the water MS/MSD analyses were performed on a LANL sample from another RN, and the parent sample raw data was not included in the data package. No sample data were qualified.
2. It should be noted that sample RE15-10-8077 was listed on the COC and the Analytical Request form but the analysis was cancelled.

Reviewed by: Mary Donovan Level: I Date: 03/05/10


VALIDATOR'S SIGNATURE: Kevin A. Lambert DATE: 03/04/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2	Records Use only
<b>LC/MS/MS Perchlorate Analytical Data Validation Checklist</b> 	

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

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2	Records Use only
LC/MS/MS Perchlorate Analytical Data Validation Checklist 	

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

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5121-2</b> <b>LC/MS/MS Perchlorate Analytical Data Validation Checklist</b>	Records Use only 

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

Form 1

Perchlorate Analysis Data Sheet

Client Sample No.

RE15-10-7883

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688001

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 69

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate Isotope Ratio						1	10-FEB-10 21:40	per0210042a
14797-73-0	Perchlorate-101	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate-O(18)			6.74	ug/kg		1	10-FEB-10 21:40	per0210042a

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

\*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Client Sample No.

RE15-10-7884

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 247147

Extraction Type: Solid Prep

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688002

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 94.2

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>a</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:04	per0210045a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate-O(18)			5.19	ug/kg		1	10-FEB-10 22:04	per0210045a

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

\*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 947147  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-7932  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688003  
 Date Filtered: 06-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 90.8

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:12	per0210046a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate-O(18)			5.44	ug/kg		1	10-FEB-10 22:12	per0210046a

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

\*Concentration =  
 Instrument Value X Concentrated Extract Volume X 1  
 Aliquot %Solids

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7931

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688004

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:20	per0210047a
14797-73-0	Perchlorate-101	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate-O(18)			5.90	ug/kg		1	10-FEB-10 22:20	per0210047a

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

\*Concentration =

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



Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7938

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688005

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate Isotope Ratio								
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate-O(18)			5.09	ug/kg		1	10-FEB-10 22:53	per0210051a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids  
Aliquot

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7933

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688006

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:01	per0210052a
14797-73-0	Perchlorate-101	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate-O(18)			6.22	ug/kg		1	10-FEB-10 23:01	per0210052a

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

\*Concentration =

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

Form 1

P perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 947147  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-7939  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688007  
 Date Filtered: 06-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 76

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:09	per0210053a
14797-73-0	Perchlorate-101	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate-O(18)			6.41	ug/kg		1	10-FEB-10 23:09	per0210053a

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

\*Concentration =  
 Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Aliquot}}$  X  $\frac{1}{\% \text{Solids}}$

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7936

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688008

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.3

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:17	per0210054a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate-O(18)			4.95	ug/kg		1	10-FEB-10 23:17	per0210054a

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

\*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7935

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688009

Date Filtered: 06-FEB-10

Injection Volume (mL): 20

%Solids: 76

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:25	per0210055a
14797-73-0	Perchlorate-101	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate-O(18)			6.16	ug/kg		1	10-FEB-10 23:25	per0210055a

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

\*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7934

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688010

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.21	2.43	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate Isotope Ratio			3.22			1	10-FEB-10 23:33	per0210056a
14797-73-0	Perchlorate-101	.554	2.21	2.32	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate-O(18)			5.53	ug/kg		1	10-FEB-10 23:33	per0210056a

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

\*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 947147  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-7940  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688011  
 Date Filtered: 06-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 95.1

CAS No.	Analyte <sup>a</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.525	2.1	0.810	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate Isotope Ratio			2.94			1	10-FEB-10 23:41	per0210057a
14797-73-0	Perchlorate-101	.525	2.1	0.849	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate-O(18)			5.36	ug/kg		1	10-FEB-10 23:41	per0210057a

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

\*Concentration =  
 Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Aliquot}}$  X  $\frac{1}{\% \text{Solids}}$

Perchlorate Analysis Data Sheet

Client Sample No.

RE15-10-7937

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688012

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:49	per0210058a
14797-73-0	Perchlorate-101	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate-O(18)			6.05	ug/kg		1	10-FEB-10 23:49	per0210058a

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

\*Concentration =  
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Aliquot}}$  X  $\frac{1}{\% \text{Solids}}$



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 947147  
 Extraction Type: Solid Prep  
 Client Sample No. RE15-10-8056  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688013  
 Date Filtered: 06-FEB-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 96.4  
 Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:57	per0210059a
14797-73-0	Perchlorate-101	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate-O(18)			5.00	ug/kg		1	10-FEB-10 23:57	per0210059a

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

\*Concentration =  
 Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Aliquot}}$  X  $\frac{1}{\% \text{Solids}}$

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 947147  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-8057  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688014  
 Date Filtered: 06-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 70

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate Isotope Ratio								
14797-73-0	Perchlorate-101	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate-O(18)			6.74	ug/kg		1	11-FEB-10 00:05	per0210060a

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

\*Concentration =  
 Instrument Value X Concentrated Extract Volume X 1  
 Aliquot %Solids

P perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 947198  
 Extraction Type: Filter/DAI  
 Sample Volume/Weight: 10.0 mL  
 Concentrated Extract Volume: 10.0  
 Client Sample No. RE15-10-8080  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433-1  
 GEL Sample ID: 245690001  
 Date Filtered: 30-JAN-10  
 Injection Volume (uL): 20  
 %Solids:

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate Isotope Ratio								
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate-O(18)			0.478	ug/L		1	31-JAN-10 20:57	per0131069a

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

\*Concentration =  
 Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Aliquot}}$  X  $\frac{1}{\% \text{Solids}}$

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

RE15-10-8079

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 245690002

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate Isotope Ratio						1	31-JAN-10 21:04	per0131070a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate-O(18)			0.504	ug/L		1	31-JAN-10 21:04	per0131070a

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

\*Concentration =

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

## DATA VALIDATION COVER SHEET

5118-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-1433 VALIDATION DATE: 03/04/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):


- |                                            |                                            |                                                 |                                                               |
|--------------------------------------------|--------------------------------------------|-------------------------------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> TPH-GRO           | <input type="checkbox"/> HIGH EXPLOSIVES   | <input type="checkbox"/> DIOXIN FURANS          | <input type="checkbox"/> LCMSMS PERCHLORATES                  |
| <input type="checkbox"/> TPH-DRO           | <input checked="" type="checkbox"/> METALS | <input type="checkbox"/> PCB CONGENERS          | <input type="checkbox"/> ORGANOCHLORINE                       |
| <input type="checkbox"/> GENERAL CHEMISTRY | <input type="checkbox"/> RADIOCHEMISTRY    | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | <input type="checkbox"/> PESTICIDES/POLYCHLORINATED BIPHENYLS |
| <input type="checkbox"/> OTHER (DESCRIBE): |                                            |                                                 |                                                               |


## Section II. Completeness Check

- | YES                                 | NO                       | N/A                                 | (CHECK ONE)                 | YES                                 | NO                       | N/A                                 | (CHECK ONE)              |
|-------------------------------------|--------------------------|-------------------------------------|-----------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 1. CHAIN-OF-CUSTODY FORM(S) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 6. RAW/BSS DATA          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 2. CASE NARRATIVE           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 7. QUALITY CONTROL FORMS |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 3. SAMPLE RESULT FORMS      | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8. QUANTITATION REPORTS  |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 4. SAMPLE CHROMATOGRAMS     | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. TICS MASS SPECTRA    |


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

1. In the water MB, Na was detected. The associated sample results were detects  $\leq 5X$  the MB concentration and, thus, were qualified U,I4. In the soil MB, Al, Sb, Ba, Fe, Mn, and Zn were detected. The Sb results for all samples except RE15-10-7936 and -7935 were detects  $\leq 5X$  the MB concentration and, thus, were qualified U,I4. The Sb result for sample -7935 and the Zn results for samples -7933, -7939, and -8057 were detects  $> 5X$  but  $\leq 50X$  the MB concentrations and, thus, were qualified J,I4a. All other associated sample results were either NDs or detects  $> 50X$  the MB concentrations and, based on professional judgment, were not qualified.
2. In the water ICB/CCB, Na and Tl was detected. The Na results were detects  $\leq 5X$  the greatest ICB/CCB concentration and, thus, were qualified U,I4b. All other associated sample results were NDs and, thus, were not qualified. In the soil ICB/CCB, Pb was detected. All associated sample results were detects  $> 5X$  the greatest ICB/CCB concentration and, thus, were not qualified.
3. In the FR blanks, samples -8080 and -8079, associated with all field samples, Al, Ba, Ca, Cr, Fe, Mg, Mn, K, U, and V were detected. All associated sample results were detects  $> 5X$  the FR blank concentrations and, thus, were not qualified.
4. The soil MS %Rs for Fe, Mn, and Se were  $<$  the laboratory LAL but  $\geq 10\%$ , and the soil MS %Rs for Al, Mg, and K were  $>$  the laboratory UAL. However, the associated parent sample concentrations for Al, Fe, and Mn were  $> 4X$  the spike concentrations. Thus, no sample data were qualified as result, based on professional judgment. The associated Se results were NDs and, thus, were qualified UJ,I6a. All other associated sample results were detects and, thus, were qualified J+,I6b.

DATA VALIDATION COVER SHEET	
<b>5118-1</b>  <b>Data Validation Cover Sheet</b>	Records Use only  
<p>5. For the soil duplicate, the RPD values for Ba, Ca, and Pb were &gt;35%, and both the parent sample and duplicate results were <math>\geq 5X</math> the PQL. All associated sample results were detects and, thus, were qualified J,I10a.</p> <p>6. It should be noted that the parent samples for the water CVAA matrix QC analyses and the soil matrix QC analyses were performed on LANL samples from other RNs, and the parent sample raw data were not included in the data package. No sample data were qualified.</p> <p>7. It should be noted that sample RE15-10-8077 was listed on the COC and the Analytical Request form but the analyses were cancelled.</p> <p>Reviewed by: <u>Mary Donovan</u> Level: <u>I</u> Date: <u>03/05/10</u></p>	
<p>VALIDATOR'S SIGNATURE: <u>Kevin A. Lambert</u> DATE: <u>03/04/10</u></p>	
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project


5118-2 METALS ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5118-2</b>  <b>Metals Analytical Data Validation Checklist</b>	Records Use only  

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


METALS ANALYTICAL DATA VALIDATION CHECKLIST		
5118-2		Records Use only
Metals Analytical Data Validation Checklist		

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



METALS ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5118-2</b>  <b>Metals Analytical Data Validation Checklist</b>	Records Use only  

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

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5118-2</b>  <b>Metals Analytical Data Validation Checklist</b>	Records Use only  

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

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688001

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7883

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 69

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5870000	ug/Kg	*	9750	28700	28700	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-36-0	Antimony U,14	1580	ug/Kg		473	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-38-2	Arsenic	1.56	mg/kg		0.281	1.41	1.41	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-39-3	Barium J,110a	77600	ug/Kg	*	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-41-7	Beryllium	0.549	mg/kg		0.0281	0.141	0.141	2	MS	SKJ	02/24/10 12:31	100224-4	948035
7440-43-9	Cadmium	717	ug/Kg	U	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-70-2	Calcium J,110a	1290000	ug/Kg	*N	11500	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-47-3	Chromium	12700	ug/Kg		215	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-48-4	Cobalt	6090	ug/Kg	*	215	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-50-8	Copper	10100	ug/Kg	*	424	1410	1410	1	P	HSC	02/19/10 18:06	021910A-2	954751
7439-89-6	Iron	10500000	ug/Kg		11500	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-92-1	Lead J,110a	14300	ug/Kg	*	358	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-95-4	Magnesium J+,16b	1140000	ug/Kg	*N	12200	43000	43000	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-96-5	Manganese	406000	ug/Kg	*	287	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-97-6	Mercury	17.8	ug/kg		5.53	16.3	16.3	1	AV	JXL1	02/16/10 10:45	021610S2-5	947654
7440-02-0	Nickel	4.82	mg/kg		0.141	0.562	0.562	2	MS	SKJ	02/24/10 12:31	100224-4	948035
7440-09-7	Potassium J+,16b	1190000	ug/Kg	*N	9180	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7782-49-2	Selenium UJ,16a	1.41	mg/kg	U*N	0.703	1.41	1.41	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-22-4	Silver	717	ug/Kg	U	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-23-5	Sodium	53800	ug/Kg		10000	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-28-0	Thallium	0.229	mg/kg	J	0.0844	0.281	0.281	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-61-1	Uranium	7.58	mg/kg		0.0186	0.0562	0.0562	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-62-2	Vanadium	17600	ug/Kg		141	707	707	1	P	HSC	02/19/10 18:06	021910A-2	954751
7440-66-6	Zinc	29800	ug/Kg		473	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.535	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.506	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.516	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.513	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688002

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7884

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 94.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4780000	ug/Kg	*	6930	20400	20400	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-36-0	Antimony U,14	458	ug/Kg	J	336	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-38-2	Arsenic	1.16	mg/kg		0.198	0.992	0.992	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-39-3	Barium J,110a	46200	ug/Kg	*	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-41-7	Beryllium	0.427	mg/kg		0.0198	0.0992	0.0992	2	MS	SKJ	02/24/10 12:44	100224-4	948035
7440-43-9	Cadmium	509	ug/Kg	U	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-70-2	Calcium J,110a	700000	ug/Kg	*N	8150	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-47-3	Chromium	11100	ug/Kg		153	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-48-4	Cobalt	3490	ug/Kg	*	153	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-50-8	Copper	3450	ug/Kg	*	317	1060	1060	1	P	HSC	02/19/10 18:31	021910A-2	954751
7439-89-6	Iron	11100000	ug/Kg		8150	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-92-1	Lead J,110a	5710	ug/Kg	*	255	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-95-4	Magnesium J+,16b	679000	ug/Kg	*N	8660	30600	30600	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-96-5	Manganese	272000	ug/Kg	*	204	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-97-6	Mercury	16.3	ug/kg		4.01	11.8	11.8	1	AV	JXL1	02/16/10 10:55	021610S2-5	947654
7440-02-0	Nickel	5.16	mg/kg		0.0992	0.397	0.397	2	MS	SKJ	02/24/10 12:44	100224-4	948035
7440-09-7	Potassium J+,16b	651000	ug/Kg	*N	6520	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7782-49-2	Selenium U,J,16a	0.992	mg/kg	U*N	0.496	0.992	0.992	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-22-4	Silver	509	ug/Kg	U	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-23-5	Sodium	180000	ug/Kg		7130	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-28-0	Thallium	0.0649	mg/kg	J	0.0595	0.198	0.198	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-61-1	Uranium	0.598	mg/kg		0.0131	0.0397	0.0397	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-62-2	Vanadium	5730	ug/Kg		106	528	528	1	P	HSC	02/19/10 18:31	021910A-2	954751
7440-66-6	Zinc	51200	ug/Kg		336	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.54	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.521	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.535	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688003

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7932

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 90.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6700000	ug/Kg	*	7410	21800	21800	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-36-0	Antimony U,14	868	ug/Kg	J	360	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-38-2	Arsenic	1.26	mg/kg		0.193	0.963	0.963	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-39-3	Barium J,110a	77700	ug/Kg	*	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-41-7	Beryllium	0.734	mg/kg		0.0193	0.0963	0.0963	2	MS	SKJ	02/24/10 12:46	100224-4	948035
7440-43-9	Cadmium	545	ug/Kg	U	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-70-2	Calcium J,110a	1800000	ug/Kg	*N	8720	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-47-3	Chromium	18400	ug/Kg		164	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-48-4	Cobalt	3520	ug/Kg	*	164	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-50-8	Copper	4150	ug/Kg	*	277	922	922	1	P	HSC	02/19/10 18:35	021910A-2	954751
7439-89-6	Iron	12100000	ug/Kg		8720	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-92-1	Lead J,110a	5670	ug/Kg	*	273	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-95-4	Magnesium J+,16b	1040000	ug/Kg	*N	9270	32700	32700	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-96-5	Manganese	327000	ug/Kg	*	218	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-97-6	Mercury	16.9	ug/kg		4.34	12.8	12.8	1	AV	JXL1	02/16/10 10:57	02161052-5	947654
7440-02-0	Nickel	5.42	mg/kg		0.0963	0.385	0.385	2	MS	SKJ	02/24/10 12:46	100224-4	948035
7440-09-7	Potassium J+,16b	841000	ug/Kg	*N	6980	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7782-49-2	Selenium UJ,16a	0.963	mg/kg	U*N	0.481	0.963	0.963	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-22-4	Silver	545	ug/Kg	U	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-23-5	Sodium	203000	ug/Kg		7630	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-28-0	Thallium	0.0724	mg/kg	J	0.0578	0.193	0.193	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-61-1	Uranium	0.938	mg/kg		0.0127	0.0385	0.0385	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-62-2	Vanadium	7970	ug/Kg		92.2	461	461	1	P	HSC	02/19/10 18:35	021910A-2	954751
7440-66-6	Zinc	28500	ug/Kg		360	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.518	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.505	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.572	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.597	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688004

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7931

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9650000	ug/Kg	*	8200	24100	24100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-36-0	Antimony U,14	959	ug/Kg	J	398	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-38-2	Arsenic	1.67	mg/kg		0.23	1.15	1.15	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-39-3	Barium J,110a	105000	ug/Kg	*	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-41-7	Beryllium	0.614	mg/kg		0.023	0.115	0.115	2	MS	SKJ	02/24/10 12:48	100224-4	948035
7440-43-9	Cadmium	603	ug/Kg	U	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-70-2	Calcium J,110a	1590000	ug/Kg	*N	9650	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-47-3	Chromium	19900	ug/Kg		181	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-48-4	Cobalt	3390	ug/Kg	*	181	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-50-8	Copper	7780	ug/Kg	*	362	1210	1210	1	P	HSC	02/19/10 18:39	021910A-2	954751
7439-89-6	Iron	11100000	ug/Kg		9650	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-92-1	Lead J,110a	9730	ug/Kg	*	301	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-95-4	Magnesium J+,16b	1420000	ug/Kg	*N	10200	36200	36200	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-96-5	Manganese	321000	ug/Kg	*	241	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-97-6	Mercury	17.3	ug/kg		4.23	12.5	12.5	1	AV	JXL	02/16/10 10:59	021610S2-5	947654
7440-02-0	Nickel	5.76	mg/kg		0.115	0.46	0.46	2	MS	SKJ	02/24/10 12:48	100224-4	948035
7440-09-7	Potassium J+,16b	1190000	ug/Kg	*N	7720	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7782-49-2	Selenium UJ,16a	1.15	mg/kg	U*N	0.575	1.15	1.15	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-22-4	Silver	603	ug/Kg	U	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-23-5	Sodium	76000	ug/Kg		8440	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-28-0	Thallium	0.108	mg/kg	J	0.069	0.23	0.23	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-61-1	Uranium	2.26	mg/kg		0.0152	0.046	0.046	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-62-2	Vanadium	13000	ug/Kg		121	603	603	1	P	HSC	02/19/10 18:39	021910A-2	954751
7440-66-6	Zinc	25900	ug/Kg		398	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.581	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.524	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.5	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688005

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7938

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1910000	ug/Kg	*	6980	20500	20500	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-36-0	Antimony U,14	410	ug/Kg	J	339	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-38-2	Arsenic	0.672	mg/kg	J	0.193	0.966	0.966	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-39-3	Barium J,110a	35000	ug/Kg	*	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-41-7	Beryllium	0.358	mg/kg		0.0193	0.0966	0.0966	2	MS	SKJ	02/24/10 12:50	100224-4	948035
7440-43-9	Cadmium	513	ug/Kg	U	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-70-2	Calcium J,110a	396000	ug/Kg	*N	8210	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-47-3	Chromium	41300	ug/Kg		154	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-48-4	Cobalt	1310	ug/Kg	*	154	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-50-8	Copper	2730	ug/Kg	*	310	1030	1030	1	P	HSC	02/19/10 18:42	021910A-2	954751
7439-89-6	Iron	8030000	ug/Kg		8210	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-92-1	Lead J,110a	3020	ug/Kg	*	257	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-95-4	Magnesium J+,16b	352000	ug/Kg	*N	8730	30800	30800	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-96-5	Manganese	223000	ug/Kg	*	205	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-97-6	Mercury	14.9	ug/kg		4.11	12.1	12.1	1	AV	JXL1	02/16/10 11:05	021610S2-5	947654
7440-02-0	Nickel	5.53	mg/kg		0.0966	0.386	0.386	2	MS	SKJ	02/24/10 12:50	100224-4	948035
7440-09-7	Potassium J+,16b	320000	ug/Kg	*N	6570	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7782-49-2	Selenium UJ,16a	0.966	mg/kg	U*N	0.483	0.966	0.966	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-22-4	Silver	513	ug/Kg	U	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-23-5	Sodium	126000	ug/Kg		7190	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-28-0	Thallium	0.193	mg/kg	U	0.0579	0.193	0.193	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-61-1	Uranium	0.593	mg/kg		0.0127	0.0386	0.0386	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-62-2	Vanadium	4020	ug/Kg		103	517	517	1	P	HSC	02/19/10 18:42	021910A-2	954751
7440-66-6	Zinc	41300	ug/Kg		339	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.515	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.505	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.537	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.501	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688006

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7933

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3570000	ug/Kg	*	7680	22500	22500	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-36-0	Antimony U,14	627	ug/Kg	J	372	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-38-2	Arsenic	1.59	mg/kg		0.229	1.15	1.15	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-39-3	Barium J,110a	39900	ug/Kg	*	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-41-7	Beryllium	0.520	mg/kg		0.0229	0.115	0.115	2	MS	SKJ	02/24/10 12:56	100224-4	948035
7440-43-9	Cadmium	563	ug/Kg	U	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-70-2	Calcium J,110a	642000	ug/Kg	*N	9010	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-47-3	Chromium	5380	ug/Kg		169	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-48-4	Cobalt	2720	ug/Kg	*	169	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-50-8	Copper	10400	ug/Kg	*	354	1180	1180	1	P	HSC	02/19/10 18:46	021910A-2	954751
7439-89-6	Iron	6280000	ug/Kg		9010	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-92-1	Lead J,110a	6900	ug/Kg	*	282	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-95-4	Magnesium J+,16b	651000	ug/Kg	*N	9580	33800	33800	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-96-5	Manganese	177000	ug/Kg	*	225	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-97-6	Mercury	9.04	ug/kg	J	4.6	13.5	13.5	1	AV	JXL1	02/16/10 11:07	021610S2-5	947654
7440-02-0	Nickel	4.99	mg/kg		0.115	0.459	0.459	2	MS	SKJ	02/24/10 12:56	100224-4	948035
7440-09-7	Potassium J+,16b	691000	ug/Kg	*N	7210	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7782-49-2	Selenium UJ,16a	1.15	mg/kg	U*N	0.574	1.15	1.15	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-22-4	Silver	563	ug/Kg	U	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-23-5	Sodium	26300	ug/Kg	J	7890	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-28-0	Thallium	0.132	mg/kg	J	0.0688	0.229	0.229	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-61-1	Uranium	13.8	mg/kg		0.0151	0.0459	0.0459	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-62-2	Vanadium	19400	ug/Kg		118	590	590	1	P	HSC	02/19/10 18:46	021910A-2	954751
7440-66-6	Zinc J,14a	13100	ug/Kg		372	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.559	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.559	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.549	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.534	g	50	mL	02/18/10	BCD1

KAL  
03/04/10



METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688007

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7939

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6600000	ug/Kg	*	8410	24700	24700	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-36-0	Antimony U,14	884	ug/Kg	J	408	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-38-2	Arsenic	3.28	mg/kg		0.246	1.23	1.23	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-39-3	Barium J,110a	82600	ug/Kg	*	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-41-7	Beryllium	1.12	mg/kg		0.0246	0.123	0.123	2	MS	SKJ	02/24/10 12:58	100224-4	948035
7440-43-9	Cadmium	618	ug/Kg	U	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-70-2	Calcium J,110a	1050000	ug/Kg	*N	9890	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-47-3	Chromium	21100	ug/Kg		185	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-48-4	Cobalt	5780	ug/Kg	*	185	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-50-8	Copper	23100	ug/Kg	*	363	1210	1210	1	P	HSC	02/19/10 18:50	021910A-2	954751
7439-89-6	Iron	8380000	ug/Kg		9890	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-92-1	Lead J,110a	12700	ug/Kg	*	309	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-95-4	Magnesium J+,16b	1230000	ug/Kg	*N	10500	37100	37100	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-96-5	Manganese	295000	ug/Kg	*	247	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-97-6	Mercury	30.5	ug/kg		5.14	15.1	15.1	1	AV	JXL1	02/16/10 11:09	021610S2-5	947654
7440-02-0	Nickel	12	mg/kg		0.123	0.493	0.493	2	MS	SKJ	02/24/10 12:58	100224-4	948035
7440-09-7	Potassium J+,16b	1160000	ug/Kg	*N	7910	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7782-49-2	Selenium UJ,16a	1.23	mg/kg	U*N	0.616	1.23	1.23	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-22-4	Silver	618	ug/Kg	U	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-23-5	Sodium	85800	ug/Kg		8650	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-28-0	Thallium	0.313	mg/kg		0.0739	0.246	0.246	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-61-1	Uranium	16.5	mg/kg		0.0163	0.0493	0.0493	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-62-2	Vanadium	24700	ug/Kg		121	605	605	1	P	HSC	02/19/10 18:50	021910A-2	954751
7440-66-6	Zinc J,14a	18000	ug/Kg		408	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.521	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.531	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.533	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.543	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688008

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7936

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1370000	ug/Kg	*	7060	20800	20800	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-36-0	Antimony	1040	ug/Kg	U	343	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-38-2	Arsenic	0.469	mg/kg	J	0.182	0.911	0.911	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-39-3	Barium J,110a	26200	ug/Kg	*	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-41-7	Beryllium	0.279	mg/kg		0.0182	0.0911	0.0911	2	MS	SKJ	02/24/10 12:59	100224-4	948035
7440-43-9	Cadmium	519	ug/Kg	U	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-70-2	Calcium J,110a	778000	ug/Kg	*N	8300	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-47-3	Chromium	14100	ug/Kg		156	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-48-4	Cobalt	946	ug/Kg	*	156	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-50-8	Copper	6480	ug/Kg	*	308	1030	1030	1	P	HSC	02/19/10 18:53	021910A-2	954751
7439-89-6	Iron	7710000	ug/Kg		8300	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-92-1	Lead J,110a	6000	ug/Kg	*	260	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-95-4	Magnesium J+,16b	323000	ug/Kg	*N	8820	31100	31100	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-96-5	Manganese	234000	ug/Kg	*	208	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-97-6	Mercury	18.8	ug/kg		3.91	11.5	11.5	1	AV	JXL1	02/16/10 11:11	021610S2-5	947654
7440-02-0	Nickel	3.79	mg/kg		0.0911	0.364	0.364	2	MS	SKJ	02/24/10 12:59	100224-4	948035
7440-09-7	Potassium J+,16b	359000	ug/Kg	*N	6640	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7782-49-2	Selenium UJ,16a	0.911	mg/kg	U*N	0.455	0.911	0.911	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-22-4	Silver	519	ug/Kg	U	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-23-5	Sodium	137000	ug/Kg		7270	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-28-0	Thallium	0.182	mg/kg	U	0.0546	0.182	0.182	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-61-1	Uranium	1.85	mg/kg		0.012	0.0364	0.0364	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-62-2	Vanadium	6320	ug/Kg		103	513	513	1	P	HSC	02/19/10 18:53	021910A-2	954751
7440-66-6	Zinc	46700	ug/Kg		343	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.542	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.57	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.506	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688009

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7935

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11400000	ug/Kg	*	8610	25300	25300	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-36-0	Antimony J,14a	2520	ug/Kg		418	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-38-2	Arsenic	2.88	mg/kg		0.237	1.18	1.18	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-39-3	Barium J,110a	101000	ug/Kg	*	127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-41-7	Beryllium	2.47	mg/kg		0.0237	0.118	0.118	2	MS	SKJ	02/24/10 13:01	100224-4	948035
7440-43-9	Cadmium	633	ug/Kg	U	127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-70-2	Calcium J,110a	2220000	ug/Kg	*N	10100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-47-3	Chromium	25200	ug/Kg		190	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-48-4	Cobalt	4850	ug/Kg	*	190	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-50-8	Copper	552000	ug/Kg	*	390	1300	1300	1	P	HSC	02/19/10 19:04	021910A-2	954751
7439-89-6	Iron	13700000	ug/Kg		10100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-92-1	Lead J,110a	123000	ug/Kg	*	317	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-95-4	Magnesium J+,16b	1840000	ug/Kg	*N	10800	38000	38000	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-96-5	Manganese	226000	ug/Kg	*	253	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-97-6	Mercury	17.9	ug/kg		4.98	14.7	14.7	1	AV	JXL	02/16/10 11:13	021610S2-5	947654
7440-02-0	Nickel	8.31	mg/kg		0.118	0.473	0.473	2	MS	SKJ	02/24/10 13:01	100224-4	948035
7440-09-7	Potassium J+,16b	1480000	ug/Kg	*N	8100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7782-49-2	Selenium UJ,16a	1.18	mg/kg	U*N	0.592	1.18	1.18	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-22-4	Silver	1680	ug/Kg		127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-23-5	Sodium	90500	ug/Kg		8860	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-28-0	Thallium	0.162	mg/kg	J	0.071	0.237	0.237	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-61-1	Uranium	141	mg/kg		0.156	0.473	0.473	20	MS	PRB	02/24/10 12:38	100224-3	948035
7440-62-2	Vanadium	22700	ug/Kg		130	651	651	1	P	HSC	02/19/10 19:04	021910A-2	954751
7440-66-6	Zinc	52900	ug/Kg		418	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.536	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.517	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.553	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688010

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7934

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8850000	ug/Kg	*	7290	21500	21500	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-36-0	Antimony U,14	894	ug/Kg	J	354	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-38-2	Arsenic	2.18	mg/kg		0.21	1.05	1.05	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-39-3	Barium J,110a	123000	ug/Kg	*	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-41-7	Beryllium	0.699	mg/kg		0.021	0.105	0.105	2	MS	SKJ	02/24/10 13:03	100224-4	948035
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-70-2	Calcium J,110a	2620000	ug/Kg	*N	8580	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-47-3	Chromium	28300	ug/Kg		161	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-48-4	Cobalt	4420	ug/Kg	*	161	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-50-8	Copper	5240	ug/Kg	*	321	1070	1070	1	P	HSC	02/19/10 19:08	021910A-2	954751
7439-89-6	Iron	13000000	ug/Kg		8580	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-92-1	Lead J,110a	8720	ug/Kg	*	268	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-95-4	Magnesium J+,16b	1740000	ug/Kg	*N	9120	32200	32200	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-96-5	Manganese	291000	ug/Kg	*	215	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-97-6	Mercury	15.8	ug/kg		3.98	11.7	11.7	1	AV	JXL1	02/16/10 11:15	021610S2-5	947654
7440-02-0	Nickel	7.26	mg/kg		0.105	0.419	0.419	2	MS	SKJ	02/24/10 13:03	100224-4	948035
7440-09-7	Potassium J+,16b	1220000	ug/Kg	*N	6870	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7782-49-2	Selenium U,J,16a	1.05	mg/kg	U*N	0.524	1.05	1.05	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-22-4	Silver	536	ug/Kg	U	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-23-5	Sodium	325000	ug/Kg		7510	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-28-0	Thallium	0.141	mg/kg	J	0.0629	0.21	0.21	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-61-1	Uranium	1.18	mg/kg		0.0138	0.0419	0.0419	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-62-2	Vanadium	14900	ug/Kg		107	534	534	1	P	HSC	02/19/10 19:08	021910A-2	954751
7440-66-6	Zinc	28400	ug/Kg		354	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.568	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.516	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.528	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.518	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688011

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7940

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 95.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3920000	ug/Kg	*	6850	20100	20100	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-36-0	Antimony U,14	927	ug/Kg	J	332	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-38-2	Arsenic	1.45	mg/kg		0.201	1	1	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-39-3	Barium J,110a	55200	ug/Kg	*	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-41-7	Beryllium	0.706	mg/kg		0.0201	0.1	0.1	2	MS	SKJ	02/24/10 13:09	100224-4	948035
7440-43-9	Cadmium	503	ug/Kg	U	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-70-2	Calcium J,110a	3040000	ug/Kg	*N	8050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-47-3	Chromium	27700	ug/Kg		151	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-48-4	Cobalt	1120	ug/Kg	*	151	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-50-8	Copper	2910	ug/Kg	*	315	1050	1050	1	P	HSC	02/19/10 19:12	021910A-2	954751
7439-89-6	Iron	7420000	ug/Kg		8050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-92-1	Lead J,110a	4870	ug/Kg	*	252	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-95-4	Magnesium J+,16b	832000	ug/Kg	*N	8560	30200	30200	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-96-5	Manganese	252000	ug/Kg	*	201	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-97-6	Mercury	27	ug/kg		3.9	11.5	11.5	1	AV	JXL1	02/16/10 11:17	021610S2-5	947654
7440-02-0	Nickel	7.31	mg/kg		0.1	0.402	0.402	2	MS	SKJ	02/24/10 13:09	100224-4	948035
7440-09-7	Potassium J+,16b	471000	ug/Kg	*N	6440	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7782-49-2	Selenium UJ,16a	1	mg/kg	U*N	0.502	1	1	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-22-4	Silver	503	ug/Kg	U	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-23-5	Sodium	292000	ug/Kg		7050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-28-0	Thallium	0.0914	mg/kg	J	0.0603	0.201	0.201	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-61-1	Uranium	0.888	mg/kg		0.0133	0.0402	0.0402	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-62-2	Vanadium	7590	ug/Kg		105	525	525	1	P	HSC	02/19/10 19:12	021910A-2	954751
7440-66-6	Zinc	22500	ug/Kg		332	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.55	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.522	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.523	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.5	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688012

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7937

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9710000	ug/Kg	*	8890	26100	26100	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-36-0	Antimony U,14	1090	ug/Kg	J	431	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-38-2	Arsenic	2.93	mg/kg		0.262	1.31	1.31	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-39-3	Barium J,110a	186000	ug/Kg	*	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-41-7	Beryllium	1.05	mg/kg		0.0262	0.131	0.131	2	MS	SKJ	02/24/10 13:11	100224-4	948035
7440-43-9	Cadmium	653	ug/Kg	U	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-70-2	Calcium J,110a	2860000	ug/Kg	*N	10500	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-47-3	Chromium	16700	ug/Kg		196	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-48-4	Cobalt	9400	ug/Kg	*	196	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-50-8	Copper	33000	ug/Kg	*	391	1300	1300	1	P	HSC	02/19/10 19:15	021910A-2	954751
7439-89-6	Iron	12700000	ug/Kg		10500	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-92-1	Lead J,110a	30500	ug/Kg	*	327	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-95-4	Magnesium J+,16b	2080000	ug/Kg	*N	11100	39200	39200	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-96-5	Manganese	738000	ug/Kg	*	261	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-97-6	Mercury	31.4	ug/kg		4.93	14.5	14.5	1	AV	JXL1	02/16/10 11:19	021610S2-5	947654
7440-02-0	Nickel	9.3	mg/kg		0.131	0.524	0.524	2	MS	SKJ	02/24/10 13:11	100224-4	948035
7440-09-7	Potassium J+,16b	1770000	ug/Kg	*N	8360	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7782-49-2	Selenium UJ,16a	1.31	mg/kg	U*N	0.655	1.31	1.31	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-22-4	Silver	653	ug/Kg	U	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-23-5	Sodium	71800	ug/Kg		9150	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-28-0	Thallium	0.208	mg/kg	J	0.0786	0.262	0.262	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-61-1	Uranium	27.7	mg/kg		0.0864	0.262	0.262	10	MS	PRB	02/24/10 12:41	100224-3	948035
7440-62-2	Vanadium	19000	ug/Kg		130	652	652	1	P	HSC	02/19/10 19:15	021910A-2	954751
7440-66-6	Zinc	35800	ug/Kg		431	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.543	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.502	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.501	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688013

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-8056

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2200000	ug/Kg	*	6750	19900	19900	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-36-0	Antimony U,14	446	ug/Kg	J	328	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-38-2	Arsenic	0.478	mg/kg	J	0.196	0.98	0.98	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-39-3	Barium J,110a	31500	ug/Kg	*	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-41-7	Beryllium	0.318	mg/kg		0.0196	0.098	0.098	2	MS	SKJ	02/24/10 13:13	100224-4	948035
7440-43-9	Cadmium	497	ug/Kg	U	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-70-2	Calcium J,110a	998000	ug/Kg	*N	7950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-47-3	Chromium	15500	ug/Kg		149	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-48-4	Cobalt	1220	ug/Kg	*	149	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-50-8	Copper	3940	ug/Kg	*	280	933	933	1	P	HSC	02/19/10 19:19	021910A-2	954751
7439-89-6	Iron	8720000	ug/Kg		7950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-92-1	Lead J,110a	10200	ug/Kg	*	248	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-95-4	Magnesium J+,16b	438000	ug/Kg	*N	8440	29800	29800	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-96-5	Manganese	214000	ug/Kg	*	199	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-97-6	Mercury	17.3	ug/kg		3.93	11.6	11.6	1	AV	JXL1	02/16/10 11:21	021610S2-5	947654
7440-02-0	Nickel	4.27	mg/kg		0.098	0.392	0.392	2	MS	SKJ	02/24/10 13:13	100224-4	948035
7440-09-7	Potassium J+,16b	440000	ug/Kg	*N	6360	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7782-49-2	Selenium UJ,16a	0.980	mg/kg	U*N	0.49	0.98	0.98	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-22-4	Silver	497	ug/Kg	U	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-23-5	Sodium	136000	ug/Kg		6950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-28-0	Thallium	0.196	mg/kg	U	0.0588	0.196	0.196	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-61-1	Uranium	39	mg/kg		0.0647	0.196	0.196	10	MS	PRB	02/24/10 12:44	100224-3	948035
7440-62-2	Vanadium	3200	ug/Kg		93.3	466	466	1	P	HSC	02/19/10 19:19	021910A-2	954751
7440-66-6	Zinc	41900	ug/Kg		328	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.538	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.522	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.529	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.556	g	50	mL	02/18/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688014

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-8057

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 70

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4900000	ug/Kg	*	9690	28500	28500	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-36-0	Antimony U,14	515	ug/Kg	J	470	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-38-2	Arsenic	1.48	mg/kg		0.24	1.2	1.2	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-39-3	Barium J,110a	61000	ug/Kg	*	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-41-7	Beryllium	0.549	mg/kg		0.024	0.12	0.12	2	MS	SKJ	02/24/10 13:14	100224-4	948035
7440-43-9	Cadmium	712	ug/Kg	U	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-70-2	Calcium J,110a	935000	ug/Kg	*N	11400	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-47-3	Chromium	9030	ug/Kg		214	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-48-4	Cobalt	4260	ug/Kg	*	214	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-50-8	Copper	11000	ug/Kg	*	339	1130	1130	1	P	HSC	02/19/10 19:23	021910A-2	954751
7439-89-6	Iron	7770000	ug/Kg		11400	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-92-1	Lead J,110a	10500	ug/Kg	*	356	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-95-4	Magnesium J+,16b	928000	ug/Kg	*N	12100	42700	42700	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-96-5	Manganese	282000	ug/Kg	*	285	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-97-6	Mercury	10.2	ug/kg	J	5.02	14.8	14.8	1	AV	JXL1	02/16/10 11:23	021610S2-5	947654
7440-02-0	Nickel	4.75	mg/kg		0.12	0.48	0.48	2	MS	SKJ	02/24/10 13:14	100224-4	948035
7440-09-7	Potassium J+,16b	1020000	ug/Kg	*N	9120	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7782-49-2	Selenium UJ,16a	1.2	mg/kg	U*N	0.601	1.2	1.2	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-22-4	Silver	712	ug/Kg	U	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-23-5	Sodium	49000	ug/Kg		9970	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-28-0	Thallium	0.113	mg/kg	J	0.0721	0.24	0.24	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-61-1	Uranium	6.15	mg/kg		0.0159	0.048	0.048	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-62-2	Vanadium	18200	ug/Kg		113	565	565	1	P	HSC	02/19/10 19:23	021910A-2	954751
7440-66-6	Zinc J,14a	20900	ug/Kg		470	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.579	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.593	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.63	g	50	mL	02/18/10	BCD1

KAL  
03/04/10



**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245690001

BASIS: As Received

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-8080

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: WATER

%SOLIDS: 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/18/10 08:51	100217-2	948041
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/18/10 08:51	100217-2	948041
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7439-95-4	Magnesium	106	ug/L	J	85	300	300	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-96-5	Manganese	1.11	ug/L	J	1	5	5	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:09	021510W1-7	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-09-7	Potassium	128	ug/L	J	50	150	150	1	P	HSC	02/12/10 17:10	021210-1	948038
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-23-5	Sodium	255	ug/L	J	100	300	300	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/18/10 19:57	100218-6	948041
7440-62-2	Vanadium	1.06	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/12/10 17:10	021210-1	948038

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948038	948036	SW846 3005A	50	mL	50	mL	02/07/10	BCD1
948041	948039	SW846 3005A	50	mL	50	mL	02/07/10	BCD1

KAL  
03/04/10

METALS  
-1-  
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245690002

BASIS: As Received

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-8079

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: WATER

%SOLIDS: 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	118	ug/L	J	68	200	200	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/18/10 09:16	100217-2	948041
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-39-3	Barium	1.88	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/18/10 09:16	100217-2	948041
7440-70-2	Calcium	90.3	ug/L	J	50	200	200	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-47-3	Chromium	1.49	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-89-6	Iron	75.5	ug/L	J	30	100	100	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-96-5	Manganese	5.97	ug/L		1	5	5	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:11	021510W1-7	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-09-7	Potassium	199	ug/L		50	150	150	1	P	HSC	02/12/10 17:38	021210-1	948038
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-23-5	Sodium	268	ug/L	J	100	300	300	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7440-61-1	Uranium	0.154	ug/L	J	0.05	0.2	0.2	1	MS	BAJ	02/18/10 20:06	100218-6	948041
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/12/10 17:38	021210-1	948038

## Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948038	948036	SW846 3005A	50	mL	50	mL	02/07/10	BCD1
948041	948039	SW846 3005A	50	mL	50	mL	02/07/10	BCD1

KAL  
03/04/10

## DATA VALIDATION COVER SHEET

5120-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-1433 VALIDATION DATE: 03/04/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- |                                                       |                                          |                                                 |                                              |
|-------------------------------------------------------|------------------------------------------|-------------------------------------------------|----------------------------------------------|
| <input type="checkbox"/> TPH-GRO                      | <input type="checkbox"/> HIGH EXPLOSIVES | <input type="checkbox"/> DIOXIN FURANS          | <input type="checkbox"/> LCMSMS PERCHLORATES |
| <input type="checkbox"/> TPH-DRO                      | <input type="checkbox"/> METALS          | <input type="checkbox"/> PCB CONGENERS          | <input type="checkbox"/> ORGANOCHLORINE      |
| <input checked="" type="checkbox"/> GENERAL CHEMISTRY | <input type="checkbox"/> RADIOCHEMISTRY  | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | PESTICIDES/POLYCHLORINATED BIPHENYLS         |

☐ OTHER (DESCRIBE): total cyanide only

## Section II. Completeness Check

- | YES                                 | NO                       | N/A                                 | (CHECK ONE)                 | YES                                 | NO                       | N/A                                 | (CHECK ONE)              |
|-------------------------------------|--------------------------|-------------------------------------|-----------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 1. CHAIN-OF-CUSTODY FORM(S) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 6. RAW/BSS DATA          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 2. CASE NARRATIVE           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 7. QUALITY CONTROL FORMS |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 3. SAMPLE RESULT FORMS      | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8. QUANTITATION REPORTS  |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 4. SAMPLE CHROMATOGRAMS     | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. TICS MASS SPECTRA    |

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

1. In the water MB, total cyanide was detected. The associated sample results were detects  $\leq 5X$  the MB concentration and, thus, were qualified U,I4.
2. In the water ICB/CCB, total cyanide was detected. The associated sample results were detects  $\leq 5X$  the greatest ICB/CCB concentration and, thus, were qualified U,I4b.
3. It should be noted that the parent samples for water matrix QC analyses and soil matrix QC analyses for Batch # 947312 were LANL samples from other RNs. No sample data were qualified as a result.
4. It should be noted that sample RE15-10-8077 was listed on the COC and the Analytical Request form but the analysis was cancelled.

Reviewed by: Mary Donovan

Level: I

Date: 03/05/10

VALIDATOR'S SIGNATURE:


*Kevin A. Lambert*

DATE: 03/04/10


Form 5120-1, Revision 0.0

LOS ALAMOS


Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2  General Chemistry Analytical Data Validation Checklist	Records Use only  

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

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2  General Chemistry Analytical Data Validation Checklist	Records Use only  

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

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST		
5120-2  General Chemistry Analytical Data Validation Checklist		Records Use only  

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

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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7931  
Sample ID: 245688004  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 17.1%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	73.2	269	ug/kg	1	AXC2	02/08/10	1430	947312	1

#### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

#### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7938  
Sample ID: 245688005  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 3.57%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	70.5	259	ug/kg	1	AXC2	02/08/10	1431	947312	1

#### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

#### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	



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Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7933  
Sample ID: 245688006  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 20.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	73.8	271	ug/kg	1	AXC2	02/08/10	1432	947312	1

#### **The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

#### **The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7939  
Sample ID: 245688007  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 23.8%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	81.2	298	ug/kg	1	AXC2	02/08/10	1433	947312	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANLER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7936  
Sample ID: 245688008  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 3.67%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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#### Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	70.6	260	ug/kg	1	AXC2	02/08/10	1433	947312	1
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#### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

#### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7935  
Sample ID: 245688009  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 23.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	82.4	303	ug/kg	1	AXC2	02/08/10	1434	947312	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANLER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7934  
Sample ID: 245688010  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 9.67%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	75.3	277	ug/kg	1	AXC2	02/08/10	1435	947312	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7940  
Sample ID: 245688011  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 4.85%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	63.8	235	ug/kg	1	AXC2	02/08/10	1343	947315	1

#### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

#### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7937  
Sample ID: 245688012  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 23.8%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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**Flow Injection Analysis**

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	85.8	315	ug/kg	1	AXC2	02/08/10	1346	947315	1
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**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

**The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-8056  
Sample ID: 245688013  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 3.56%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	69.1	254	ug/kg	1	AXC2	02/08/10	1353	947315	1

#### **The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

#### **The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9012A	



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Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-8057  
Sample ID: 245688014  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 29.8%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	93.1	342	ug/kg	1	AXC2	02/08/10	1354	947315	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7883  
Sample ID: 245688001  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 31.1%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	98.7	363	ug/kg	1	AXC2	02/08/10	1424	947312	1

**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

**The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7884  
Sample ID: 245688002  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 5.82%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	68.1	250	ug/kg	1	AXC2	02/08/10	1424	947312	1

#### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

#### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7932  
Sample ID: 245688003  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 9.2%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	69.3	255	ug/kg	1	AXC2	02/08/10	1425	947312	1

#### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

#### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 9, 2010

Client SDG: 10-1433-1

Client Sample ID: RE15-10-8080  
Sample ID: 245690001  
Matrix: W  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "As Received"</i>											
Cyanide, Total	J	2.79	U,14	1.66	5.00	ug/L	1	AXC2	02/05/10	1112	947324 1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

**Certificate of Analysis**

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

Report Date: February 9, 2010

Client SDG: 10-1433-1

Client Sample ID: RE15-10-8079  
Sample ID: 245690002  
Matrix: W  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "As Received"</i>											
Cyanide, Total	J	2.65	U,14	1.66	5.00	ug/L	1	AXC2	02/05/10	1104	947324 1

**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

**The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9012A	

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1433

LOS ALAMOS

REQUEST NUMBER: 10-1433

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

245688, 245690

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7884	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7932	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7931	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7938	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7933	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7939	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7936	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7935	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7934	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7940	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7937	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8056	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8057	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8080	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8080	1	POLY	SW-846:6850	Ice	W
RE15-10-8080	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8079	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8079	1	POLY	SW-846:6850	Ice	W
RE15-10-8079	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8077	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8077	1	POLY	SW-846:6850	Ice	W
RE15-10-8077	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:

Date

Time

Received By:

Date

Time

*[Signature]*  
Printed Name Signature

1/27/10 1400 Patricia Dove-Dent P. U. Hunt 1-28-10 08:45  
Printed Name Signature

Printed Name Signature

Printed Name Signature

Printed Name Signature

Printed Name Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Wednesday, January 27, 2010  
**LOS ALAMOS**  
NATIONAL LABORATORY

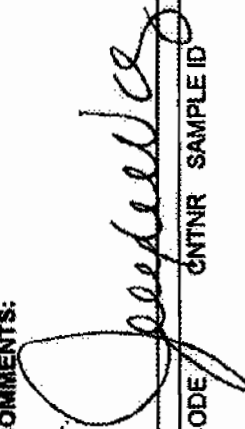
These Samples are on:  
LANL Request Number: 10-1433  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

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

Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 1/27/2010  
TURNAROUND/REPORT DUE: 2/28/2010  
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background  
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:  
Signature: 

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846 6020	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	



Wednesday, January 27, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	
	SW-846:6850	1	RE15-10-7983	R	1/25/2010	
		1	RE15-10-7984	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	
	SW-846:7470A	1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	

Wednesday, January 27, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846.7471A	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	SW-846.9012A	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8058	R	1/25/2010	
		1	RE15-10-8059	R	1/25/2010	

REQUEST NUMBER: 10-1433

Wednesday, January 27, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-9012A	1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	

Final Page of REQUEST NUMBER 10-1433



February 01, 2010

[www.gel.com](http://www.gel.com)

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

Re: LANL ER Project  
Work Orders: 245688 245690  
SDG: 10-1433

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 28, 2010, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

Valerie Davis  
Project Manager

Purchase Order: 72733-001-09  
Chain of Custody: 10-1433  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 245688 and 245690**  
**SDG: 10-1433**

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# Case Narrative



**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 245688 and 245690  
SDG # : 10-1433**

**February 01, 2010**

**Laboratory Identification:**

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

**Summary**

**Sample receipt** The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 28, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab did not received any containers for sample RE15-10-8077. Los Alamos was notified and we were instructed cancel the analysis. Please see attached e-mail. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

**Sample Identification** The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
245688001	RE15-10-7883
245688002	RE15-10-7884
245688003	RE15-10-7932
245688004	RE15-10-7931
245688005	RE15-10-7938
245688006	RE15-10-7933
245688007	RE15-10-7939
245688008	RE15-10-7936
245688009	RE15-10-7935
245688010	RE15-10-7934
245688011	RE15-10-7940
245688012	RE15-10-7937
245688013	RE15-10-8056
245688014	RE15-10-8057
245690001	RE15-10-8080
245690002	RE15-10-8079

**Case Narrative**

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

**Data Package** The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Perchlorates by LCMSMS.

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

A handwritten signature in black ink, appearing to read "for Valerie Davis".

Valerie Davis

Project Manager

**List of current GEL Certifications as of 01 February 2010**

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

# **Chain of Custody and Supporting Documentation**

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1433

LOS ALAMOS

REQUEST NUMBER: 10-1433

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

245688, 245690!

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7884	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7932	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7931	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7938	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7933	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7939	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7936	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7935	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7934	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7940	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7937	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8056	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8057	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8080	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8080	1	POLY	SW-846:6850	Ice	W
RE15-10-8080	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8079	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8079	1	POLY	SW-846:6850	Ice	W
RE15-10-8079	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8077	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8077	1	POLY	SW-846:6850	Ice	W
RE15-10-8077	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Wednesday, January 27, 2010

**LOS ALAMOS  
NATIONAL LABORATORY**

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-1433

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

**SHIP DATE: 1/27/2010**

**TURNAROUND/REPORT DUE: 2/26/2010**

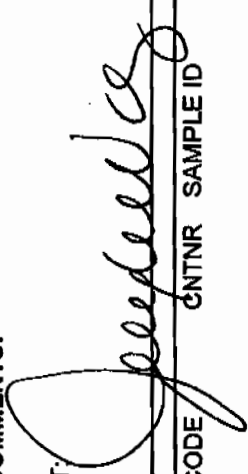
**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANLER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	
	SW-846:6850	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	
	SW-846:7470A	1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	

Wednesday, January 27, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	SW-846:9012A	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	



REQUEST NUMBER: 10-1433

Wednesday, January 27, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
----------	-------------	-------	-----------	---------------	--------------	----------------------

	SW-846:9012A	1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	

Final Page of REQUEST NUMBER 10-1433



Laboratories LLC

## SAMPLE RECEIPT &amp; REVIEW FORM

Client: LANL		SDG/ARCOC/Work Order: 10-1433	
Received By: Patricia Dover-Dent		Date Received: January 28, 2009	
Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 40 CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
2 Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags    blue ice    dry ice    none    other (describe) 0-3    12-14C
3 Chain of custody documents included with shipment?	X			
4 Sample containers intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
5 Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7 Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8 Samples received within holding time?	X			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?			X	Sample ID's affected: time written on containers, not on COC
11 Number of containers received match number indicated on COC?			X	Sample ID's affected: RE15-10-8077 the lab did not receive any container.
12 COC form is properly signed in relinquished/received sections?	X			

## Comments: FEDEX#S

7209 7849 7165 0C      7209 7849 7198 3C  
 7209 7849 7132 1C      7209 7849 7268 3C  
 7209 7849 7187 1C      7209 7849 7110 12C  
 7209 7849 7257 1C      7209 7849 7095 13C  
 7209 7849 7143 2C      7209 7849 7121 13C  
 7209 7849 7154 2C      7209 7849 7100 14C  
 7209 7849 7176 2C  
 7209 7849 7202 2C

PM (or PMA) review: Initials

Date

**Subject:** Re: Sample Receipt for 1/28/10  
**From:** Keith Greene <kgreene@lanl.gov>  
**Date:** Fri, 29 Jan 2010 10:02:08 -0700  
**To:** Dionne Francis <Dionne.Francis@gel.com>

cancel 8077 was never collected

At 09:36 AM 1/29/2010, you wrote:

Keith,

RN 10-1433: the lab did not receive any container for sample RE15-10-8077.

RN 10-1447: the Gross A/B containers were preserved prior to analysis.

Thanks,  
Dionne

--

Dionne Francis  
Project Manager Assistant  
GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC (USA) 29407  
Direct: 843.769.7376 Ext. 4432  
Main: 843.556.8171  
Fax: 843.766.1178  
E-mail: [daf@gel.com](mailto:daf@gel.com)  
Web: [www.gel.com](http://www.gel.com)

Let the Bible fill the memory, rule the heart, and guide the feet.

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 27JAN10  
ACTWGT: 52.0 LB MAN  
CAD: 0014176/CAFE2449

BILL SENDER

° VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGWKO

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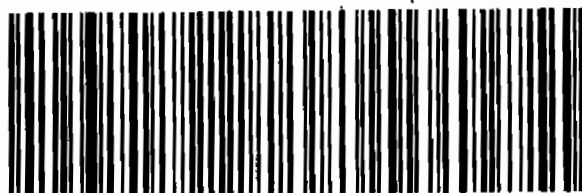
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0263

Matr# 7209 7849 7143 0201

THU - 28JAN A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

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Part # 150-48-434 NRIIT V3 04-02

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 27JAN10  
ACTWGT: 60.0 LB MAN  
CAD: 0014176/CAFE2449

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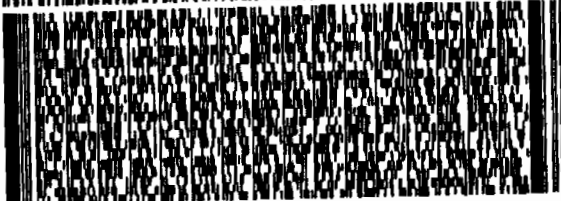
° VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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REF: 6B010AMR1A015AGWGO

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TRKH 7209 7849 7187  
0201

WM MASTER WM

THU - 28JAN A1  
PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 27JAN10  
ACTWGT: 53.0 LB MAN  
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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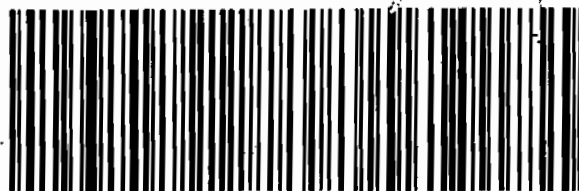
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THU - 28JAN A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

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Part # 150-48-434 NRIIT V3 04-02

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 27JAN10  
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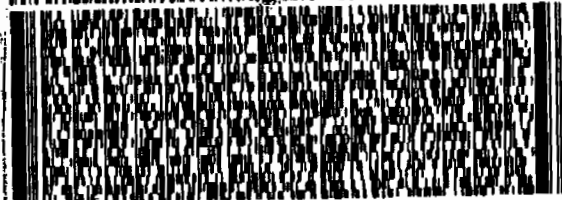
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WM MASTER WM

THU - 28JAN A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 27JAN10  
ACTWGT: 52.0 LB MAN  
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° VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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(843) 556-8171  
REF: 6B010AMR1A015AGWKO

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JOYLENE VALDEZ  
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TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

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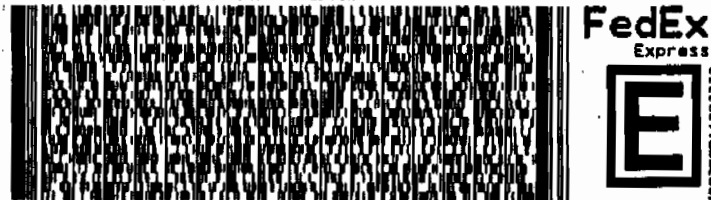
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° VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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(843) 556-8171  
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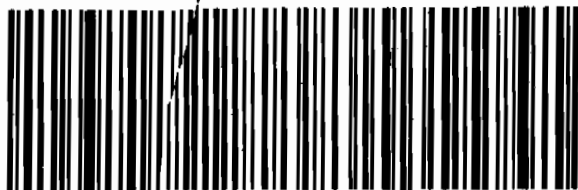


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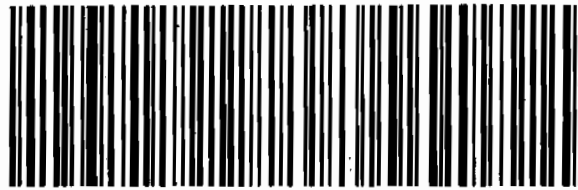
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Part 4 156-18-434 NRT V3 04-01

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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 27JAN10  
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CAD: 0014176/CAFE2449

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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 27JAN10  
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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

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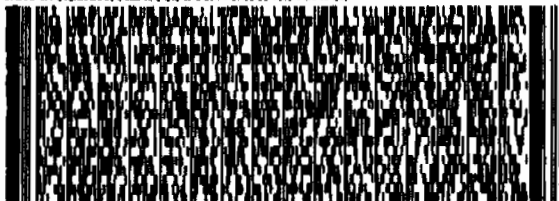
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2040 SAVAGE RD

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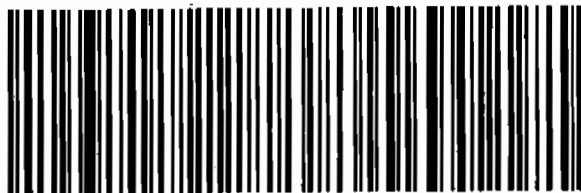
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THU - 28JAN A1  
PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 27JAN10  
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PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 27JAN10  
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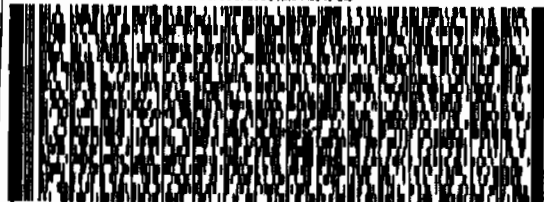
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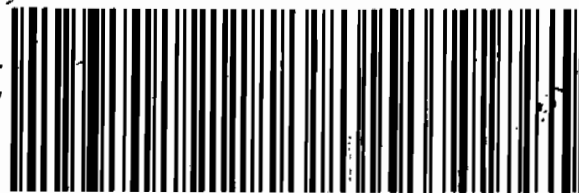
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THU - 28JAN A1  
PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 27JAN10  
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GENERAL ENGINEERING LAB  
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2 of 3  
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THU - 28JAN A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS

CAD: 0014178 / ČAFÉ2449

LOS ALAMOS, NM 87545  
UNITED STATES US

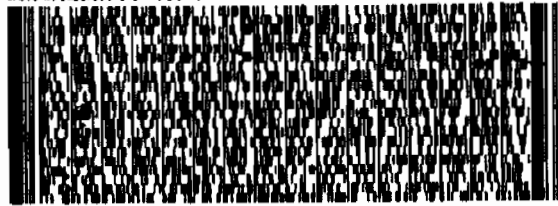
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° VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

**(843) 556-0171**

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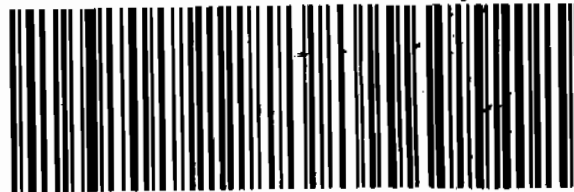
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THU - 28JAN A1  
PRIORITY OVERNIGHT

29407  
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CHS

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

SHIP DATE: 27JAN10  
ACTWGT: 59.0 LB MAN  
CAD: 0014176/CAFE2449

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3 of 3  
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0263  
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**29407**  
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XX CHSA

# **Data Review Qualifier Flag Definition Sheet**



## Data Review Qualifier Definitions

Qualifier    Explanation

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

\*\*   Analyte is a surrogate compound

<    Result is less than value reported

>    Result is greater than value reported

^    RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL

A    The TIC is a suspected aldol-condensation product

B    Target analyte was detected in the associated blank

B    Metals-Either presence of analyte detected in the associated blank, or  
MDL/IDL < sample value < PQL

BD   Results are either below the MDC or tracer recovery is low

C    Analyte has been confirmed by GC/MS analysis

D    Results are reported from a diluted aliquot of the sample

d    5-day BOD-The 2:1 depletion requirement was not met for this sample

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

E    Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

H    Analytical holding time was exceeded

h    Preparation or preservation holding time was exceeded

J    Value is estimated

N    Metals-The Matrix spike sample recovery is not within specified control limits

N    Organics-Presumptive evidence based on mass spectral library search to make a tentative  
identification of the analyte (TIC). Quantitation is based on nearest internal standard  
response factor

N/A   Spike recovery limits do not apply. Sample concentration exceeds spike concentration  
by 4X or more

ND   Analyte concentration is not detected above the reporting limit

UI   Gamma Spectroscopy-Uncertain identification

X    Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y    QC Samples were not spiked with this compound

Z    Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

# LC/MS/MS PERCHLORATE ANALYSIS

**Perchlorate by LC/MSMS  
Los Alamos National Laboratory (LANL)  
SDG 10-1433**

**Method/Analysis Information**

**Procedure:** Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

**Analytical Method:** SW846 6850 Modified

**Prep Method:** SW846 6850 Modified

**Analytical Batch Number:** 947148

**Prep Batch Number:** 947147

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
245688001	RE15-10-7883
245688002	RE15-10-7884
245688003	RE15-10-7932
245688004	RE15-10-7931
245688005	RE15-10-7938
245688006	RE15-10-7933
245688007	RE15-10-7939
245688008	RE15-10-7936
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245688011	RE15-10-7940
245688012	RE15-10-7937
245688013	RE15-10-8056
245688014	RE15-10-8057

10-1433-PERLCMS

Page 1 of 4

1202028871	Interference Check Sample (ICS)
1202028867	Method Blank (MB)
1202028868	Laboratory Control Sample (LCS)
1202028869	245688001(RE15-10-7883) Matrix Spike (MS)
1202028870	245688001(RE15-10-7883) Matrix Spike Duplicate (MSD)

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

#### **Preparation/Analytical Method Verification**

##### **SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

#### **Calibration Information**

##### **Initial Calibration**

All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

##### **CCV Requirements**

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

##### **CCB Requirements**

All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

##### **CCV Requirements**

All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

##### **Low Level Standard (CRI) Requirements**

All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MB(s) analyzed with this SDG met the acceptance criteria.

##### **Interference Check Sample (ICS)**

The interference check sample (ICS) met all recovery acceptance criteria.

##### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

10-1433-PERLCMS

Page 2 of 4

#### **QC Sample Designation**

Sample 245688001 (RE15-10-7883) was chosen for matrix spike and matrix spike duplicate analysis.

#### **Matrix Spike (MS) Recovery Statement**

The MS recoveries were within the established acceptance limits.

#### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recoveries were within the established acceptance limits.

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The RPD(s) between the MS and MSD met the acceptance limits.

#### **Retention Time Standard Area Acceptance**

The retention time standard areas were within the required acceptance criteria for all samples and QC.

#### **Retention Time**

During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

#### **Technical Information**

##### **Holding Time Specifications**

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

##### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

##### **Sample Dilutions**

The samples in this SDG did not require dilutions.

##### **Sample Re-extraction/Re-analysis**

Re-extractions or re-analyses were not required in this SDG except for dilutions.

#### **Miscellaneous Information**

##### **Data Exception (DER) Documentation**

Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

##### **Manual Integrations**

Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

10-1433-PERLCMS

Page 3 of 4

#### Method Comments

The samples in this SDG were not originally analyzed using EPA Method 314.0.

#### Additional Comments

The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

#### Perchlorate Isotope Ratio

The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

#### System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

#### Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

#### Certification Statement

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

#### Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Norbert Mauer Date: 02/17/10

10-1433-PERLCMS

Page 4 of 4

# SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7883

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688001

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 69

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate Isotope Ratio						1	10-FEB-10 21:40	per0210042a
14797-73-0	Perchlorate-101	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate-O(18)			6.74	ug/kg		1	10-FEB-10 21:40	per0210042a

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

\*Concentration =

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



Perchlorate Analysis Data Sheet

Client Sample No.

RE15-10-7884

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Date Received: 28-JAN-10

Method: SW846 6850 Modified

GEL Job No (SDG): 10-1433

Matrix: SOIL

GEL Sample ID: 245688002

Extraction Batch ID: 947147

Date Filtered: 06-FEB-10

Extraction Type: Solid Prep

Injection Volume (uL): 20

Sample Volume/Weight: 2.00 g

%Solids: 94.2

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>a</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:04	per0210045a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate-O(18)			5.19	ug/kg		1	10-FEB-10 22:04	per0210045a

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

\*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7932

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688003

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 90.8

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:12	per0210046a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate-O(18)			5.44	ug/kg		1	10-FEB-10 22:12	per0210046a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids  
Aliquot

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7931

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688004

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:20	per0210047a
14797-73-0	Perchlorate-101	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate-O(18)			5.90	ug/kg		1	10-FEB-10 22:20	per0210047a

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

\*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7938

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688005

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:53	per0210051a
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate-O(18)			5.09	ug/kg		1	10-FEB-10 22:53	per0210051a

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

\*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 247147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7933

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688006

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:01	per0210052a
14797-73-0	Perchlorate-101	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate-O(18)			6.22	ug/kg		1	10-FEB-10 23:01	per0210052a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids  
Aliquot

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7939

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688007

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:09	per0210053a
14797-73-0	Perchlorate-101	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate-O(18)			6.41	ug/kg		1	10-FEB-10 23:09	per0210053a

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

\*Concentration =

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

## Perchlorate Analysis Data Sheet

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Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7936

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688008

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.3

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:17	per0210054a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate-O(18)			4.95	ug/kg		1	10-FEB-10 23:17	per0210054a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids  
Aliquot

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 247147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7935

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688009

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:25	per0210055a
14797-73-0	Perchlorate-101	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate-O(18)			6.16	ug/kg		1	10-FEB-10 23:25	per0210055a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1  
Aliquot %Solids



Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7934

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688010

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.21	2.43	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate Isotope Ratio			3.22			1	10-FEB-10 23:33	per0210056a
14797-73-0	Perchlorate-101	.554	2.21	2.32	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate-O(18)			5.53	ug/kg		1	10-FEB-10 23:33	per0210056a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1  
Aliquot %Solids

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7940

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688011

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

% Solids: 95.1

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.525	2.1	0.810	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate Isotope Ratio			2.94			1	10-FEB-10 23:41	per0210057a
14797-73-0	Perchlorate-101	.525	2.1	0.849	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate-O(18)			5.36	ug/kg		1	10-FEB-10 23:41	per0210057a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 % Solids  
Aliquot

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 247147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7937

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688012

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:49	per0210058a
14797-73-0	Perchlorate-101	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate-O(18)			6.05	ug/kg		1	10-FEB-10 23:49	per0210058a

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

\*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8056

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688013

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte <sup>A</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:57	per0210059a
14797-73-0	Perchlorate-101	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate-O(18)			5.00	ug/kg		1	10-FEB-10 23:57	per0210059a

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

\*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 247147  
 Extraction Type: Solid Prep  
 Client Sample No. RE15-10-8057  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688014  
 Date Filtered: 06-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 70

Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate Isotope Ratio						1	11-FEB-10 00:05	per0210060a
14797-73-0	Perchlorate-101	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate-O(18)			6.74	ug/kg		1	11-FEB-10 00:05	per0210060a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1  
 Aliquot %Solids

# QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL GEL Job No. (SDG): 10-1433

Extract Batch Code: 947147 Date Filtered: 06-FEB-10

Matrix: SOIL Sample ID: 1202028868

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.05	ug/kg	103		70 - 130
Perchlorate Isotope Ratio		3.29				-
Perchlorate-101	2.00	1.93	ug/kg	96.4		70 - 130
Perchlorate-O(18)		4.65	ug/kg			-

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

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL GEL Job No. (SDG): 10-1433

Extract Batch Code: 947147 Date Filtered: 06-FEB-10

Matrix: SOIL Sample ID: 1202028871

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.11	ug/kg	105		70 - 130
Perchlorate Isotope Ratio		3.32				
Perchlorate-101	2.00	1.96	ug/kg	97.8		70 - 130
Perchlorate-O(18)		4.85	ug/kg			

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



Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210040a

Date: 10-Feb-2010

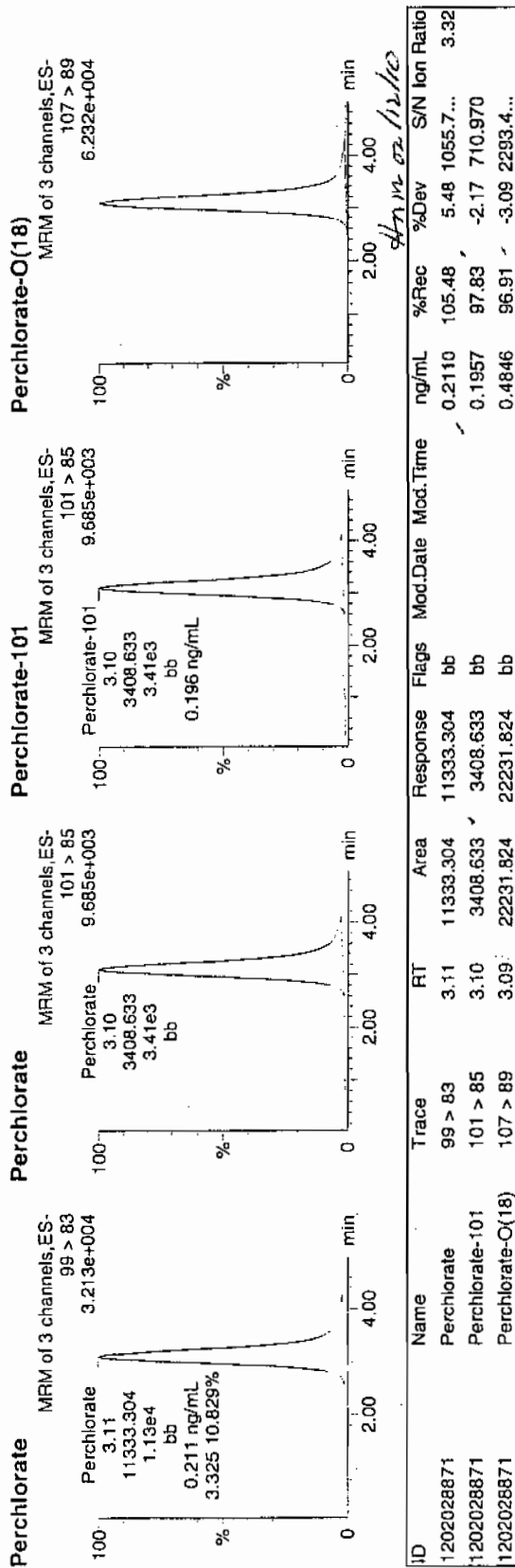
Time: 21:24:30

ID: 1202028871

Vial: 2:1,C

622  
02-12-10

LA22 | 947143 | 5000 | 765 | 11



Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1433

Extract Batch Code: 247147

Date Extracted: 06-FEB-10

GEL MS/PS ID: 1202028869

Client ID: RE15-10-7883

GEL MSD/PSD ID: 1202028870

QC Type: MS

Compound <sup>^</sup>	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.90	0.140	ug/kg	2.97	97.6	2.99	98.2	.59	30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.17		3.42		0		-
Perchlorate-101	2.90	0.179	ug/kg	2.89	93.5	2.69	86.6	7.1	30	75 - 125
Perchlorate-O(18)	0	6.74	ug/kg	6.68		6.92		3.54		-

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

Comments:

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1433

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	10-FEB-10	per0210001a	IPB001
Perchlorate-101	0.00	0	NA	10-FEB-10	per0210001a	IPB001
Perchlorate	0.00	0	NA	10-FEB-10	per0210002a	IPB001
Perchlorate-101	0.00	0	NA	10-FEB-10	per0210002a	IPB001

**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

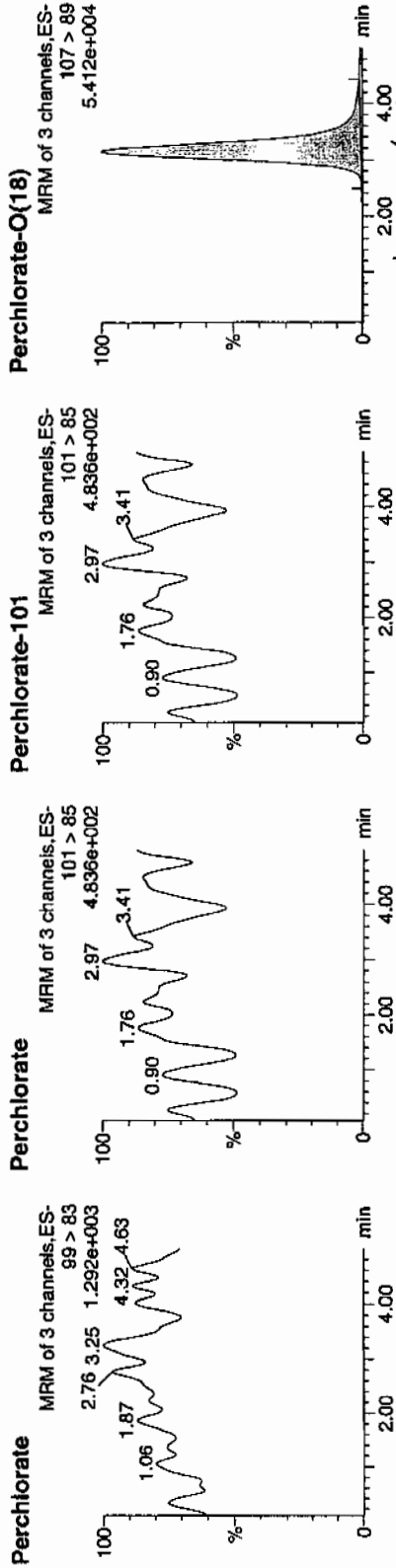
Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021010a.mdb 11 Feb 2010 11:00:00  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021010a.cdb 11 Feb 2010 11:01:28

Name: per0210001a  
Date: 10-Feb-2010  
Time: 16:10:34  
ID: IPB001  
Vial: 1:1,A

02-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.15	20380.336	20380.336	bb			0.4442	88.84	-11.16	1191.1...	

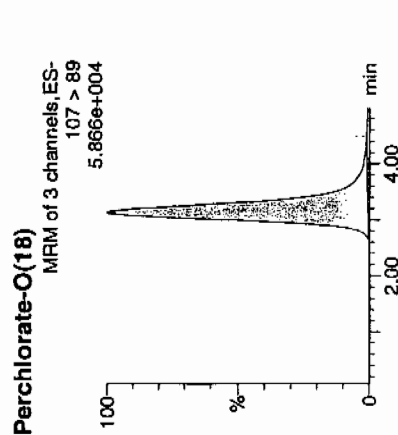
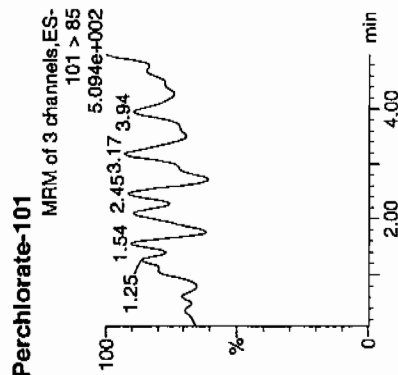
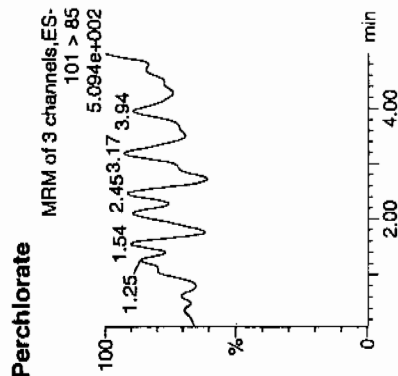
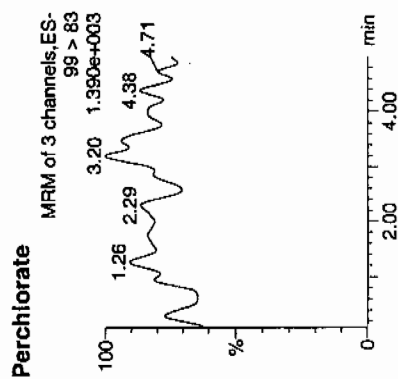
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210002a  
Date: 10-Feb-2010  
Time: 16:18:47  
ID: IPB001  
Vial: 1:1,A

02-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	3.14	21752.732	21752.732	bb			0.4741	94.83	-5.17	4519.8...	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89											

## Perchlorate Continuing Calibration Blank

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1433Lab Code: GELReporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	10-FEB-10	per0210008a	IPB002
Perchlorate-101	0.00	0	NA	10-FEB-10	per0210008a	IPB002
Perchlorate	0.00	0	NA	10-FEB-10	per0210010a	IPB003
Perchlorate-101	0.00	0	NA	10-FEB-10	per0210010a	IPB003
Perchlorate	0.00	0	NA	10-FEB-10	per0210023a	IPB004
Perchlorate-101	0.00	0	NA	10-FEB-10	per0210023a	IPB004
Perchlorate	0.00	0	NA	10-FEB-10	per0210036a	IPB005
Perchlorate-101	0.00	0	NA	10-FEB-10	per0210036a	IPB005
Perchlorate	0.00	0	NA	10-FEB-10	per0210049a	IPB006
Perchlorate-101	0.00	0	NA	10-FEB-10	per0210049a	IPB006
Perchlorate	0.00	0	NA	11-FEB-10	per0210062a	IPB007
Perchlorate-101	0.00	0	NA	11-FEB-10	per0210062a	IPB007

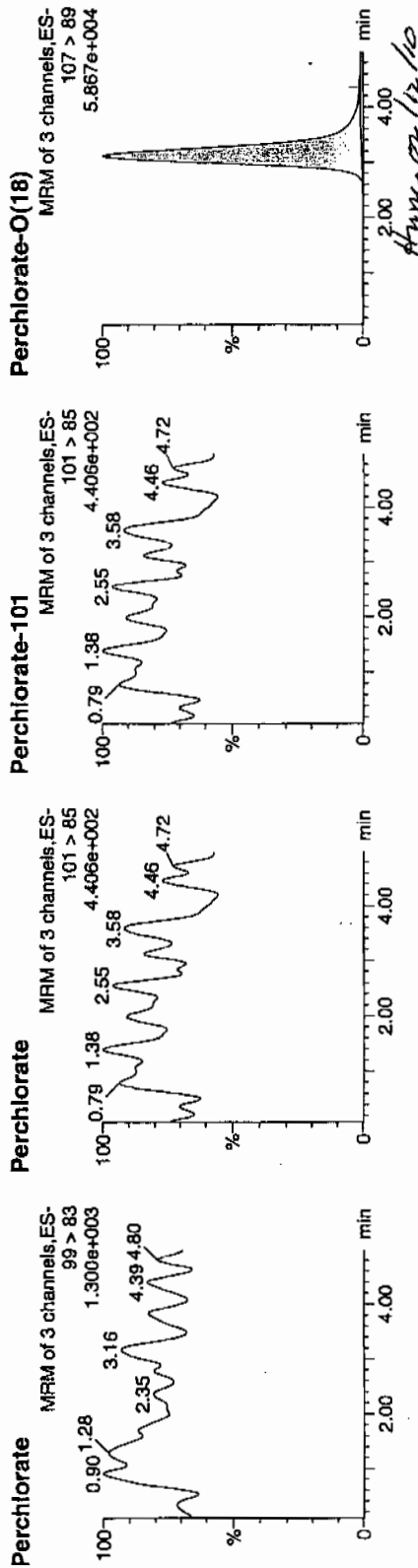
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210008a  
Date: 10-Feb-2010  
Time: 17:06:55  
ID: IPB002  
Vial: 1:1,A

02-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											
IPB002	Perchlorate-101	101 > 85	3.12	21790.453	21790.453	bb			0.4750	94.99	-5.01	2832.4...	
IPB002	Perchlorate-O(18)	107 > 89											0.00

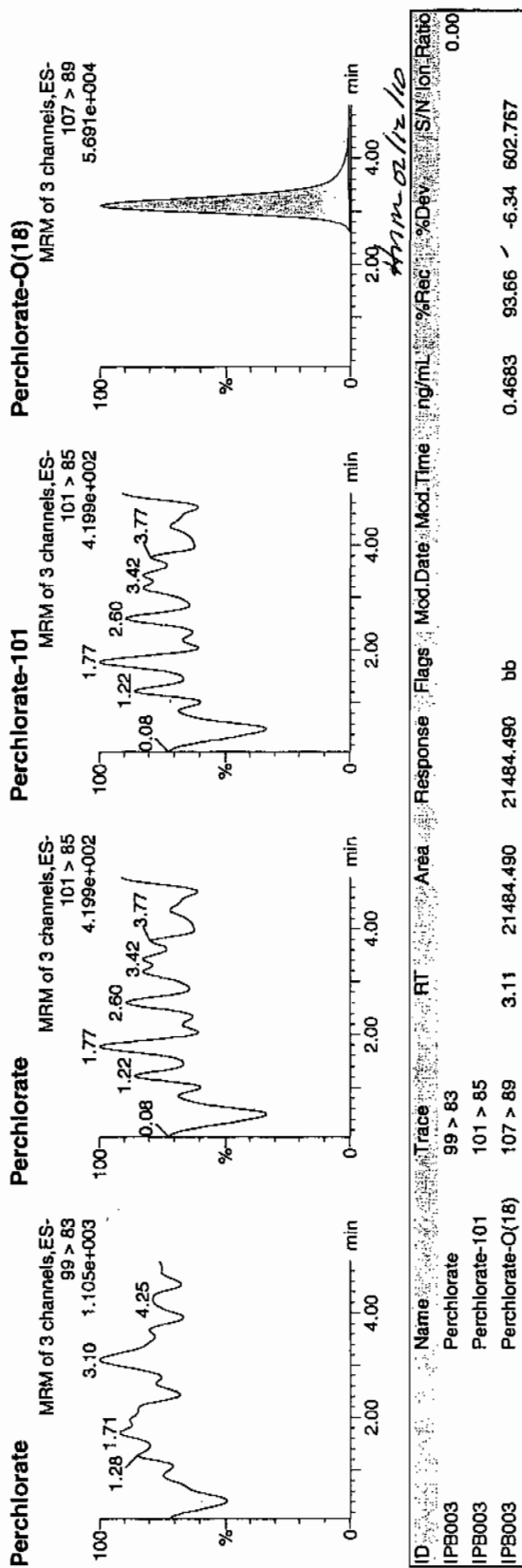
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210010a  
Date: 10-Feb-2010  
Time: 17:23:00  
ID: IPB003  
Vial: 1:1,A

02-n-10





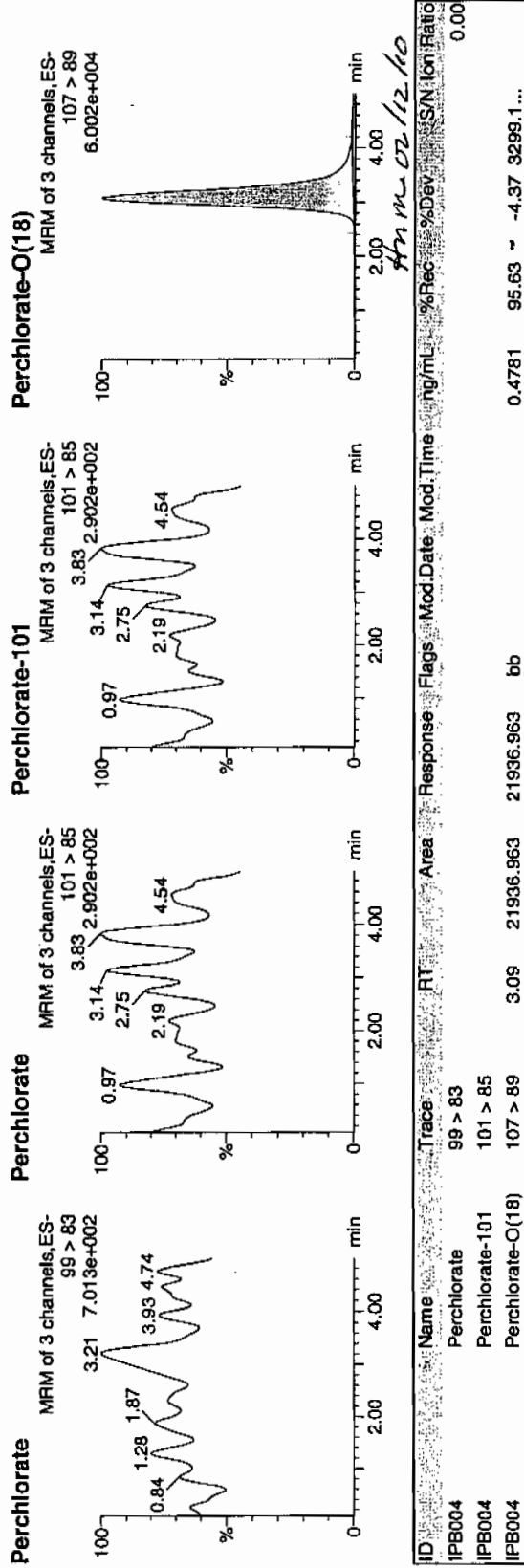
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210023a  
Date: 10-Feb-2010  
Time: 19:07:33  
ID: IPB004  
Vial: 1:1,A

02-12-10



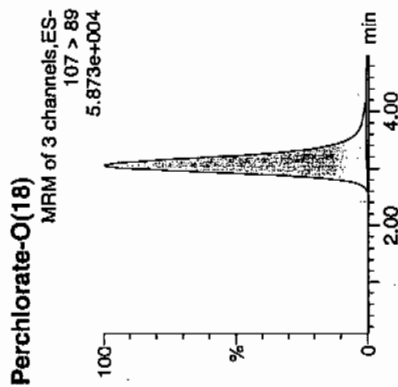
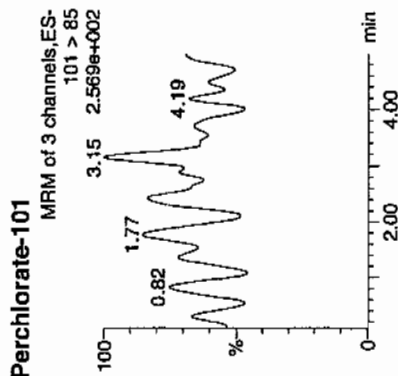
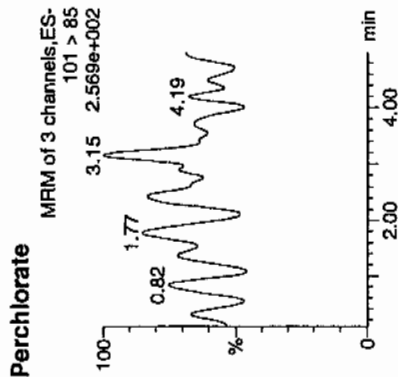
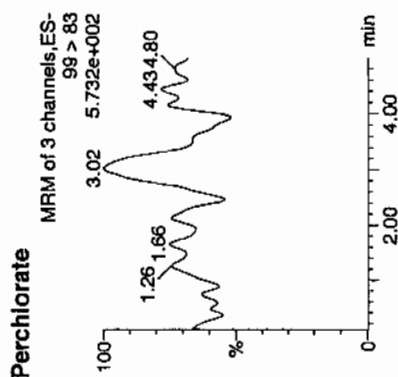
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210036a  
Date: 10-Feb-2010  
Time: 20:52:09  
ID: IPB005  
Vial: 1:1,A

02-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	3.06	21389.258	21389.258	bb			0.4662	93.24	-6.76	1799.3...	

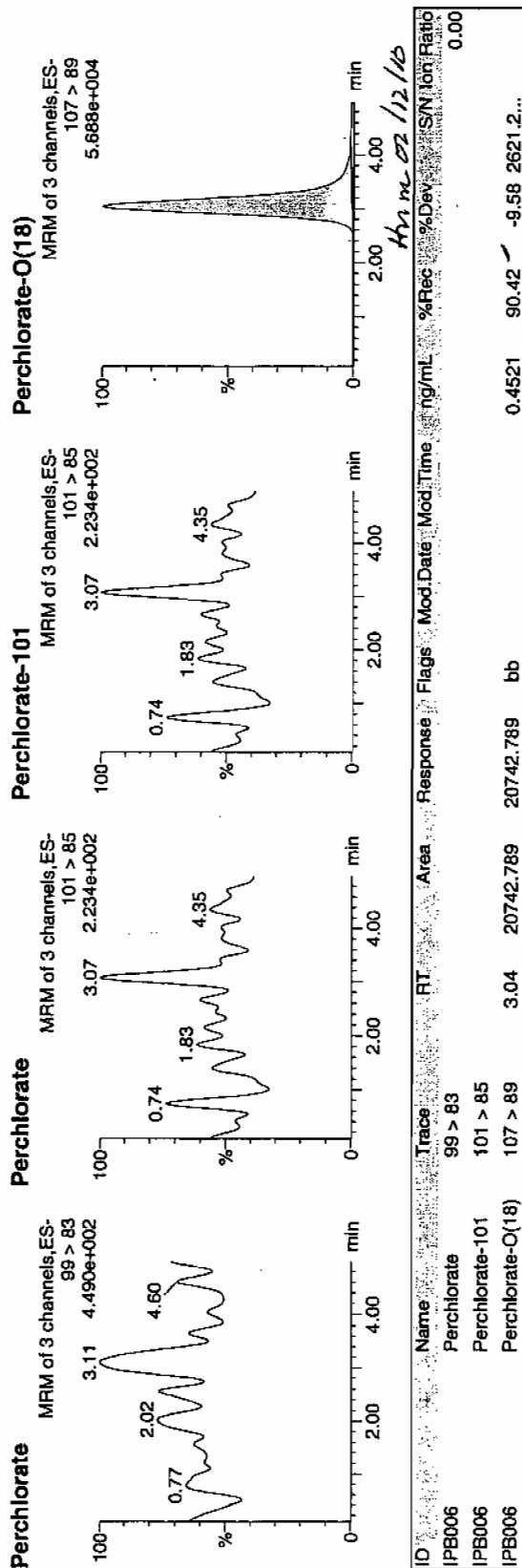
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210049a  
Date: 10-Feb-2010  
Time: 22:37:02  
ID: IPB006  
Vial: 1:1,A

02-11-10



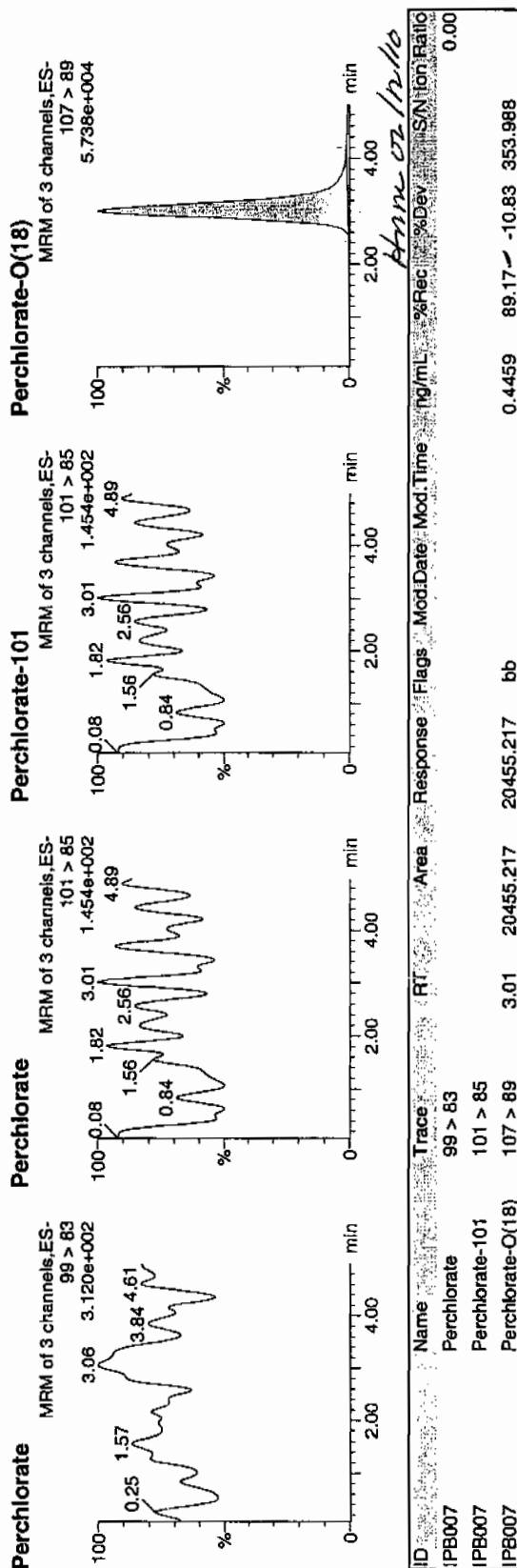
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210062a  
Date: 11-Feb-2010  
Time: 00:21:55  
ID: IPB007  
Vial: 1:1,A

02-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	3.01	20455.217	20455.217	bb			0.4459	89.17	-10.83	353.988	

Nairb.ref

;Positive ion monoisotopic and average masses from solution  
 ;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.  
 ;Most useful general purpose calibrant for all low  
 ;MW applications, including MS/MS work.  
 ;At high resolution, readily covers from m/z 50-2000.  
 ;At reduced resolution, can be used to over m/z 3000.  
 ;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.  
 Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

QUATRO ULTIMA: nairb\_01\_08\_08.cal

Calibration Report - MS1 Static

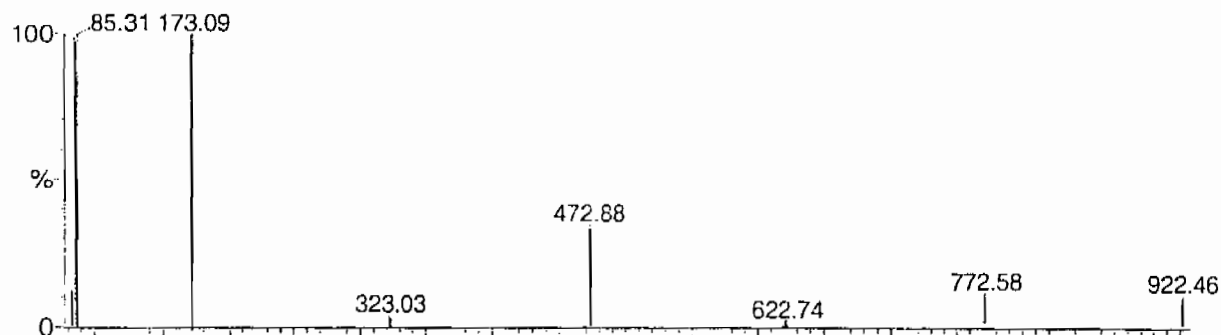
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

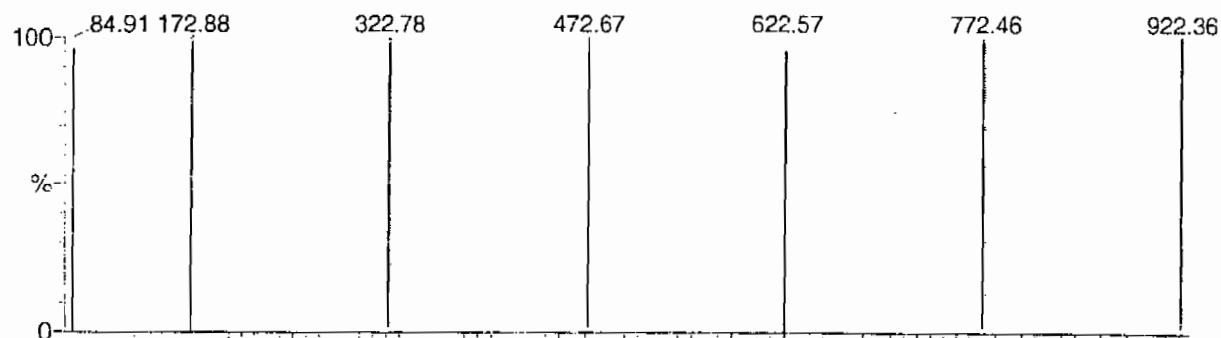
DATA HIGHLIGHTED BY GEL 01-09-08

Data file: STATMS1 - Uncalibrated

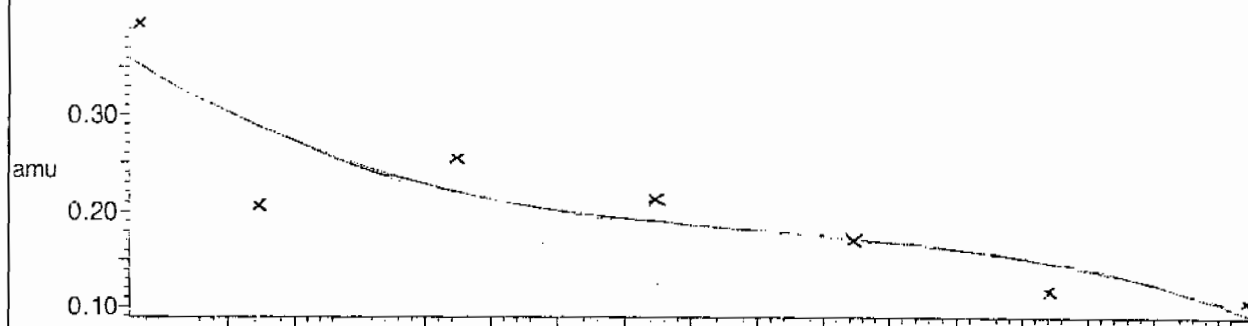
7 matches of 7 tested references



Reference file: Nairb

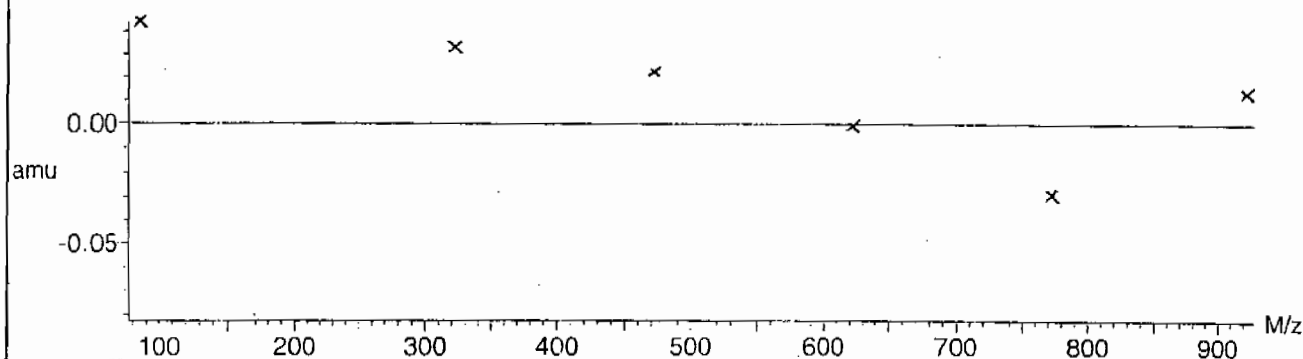


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.212012 \times 10^{-2} \pm 0.024108$



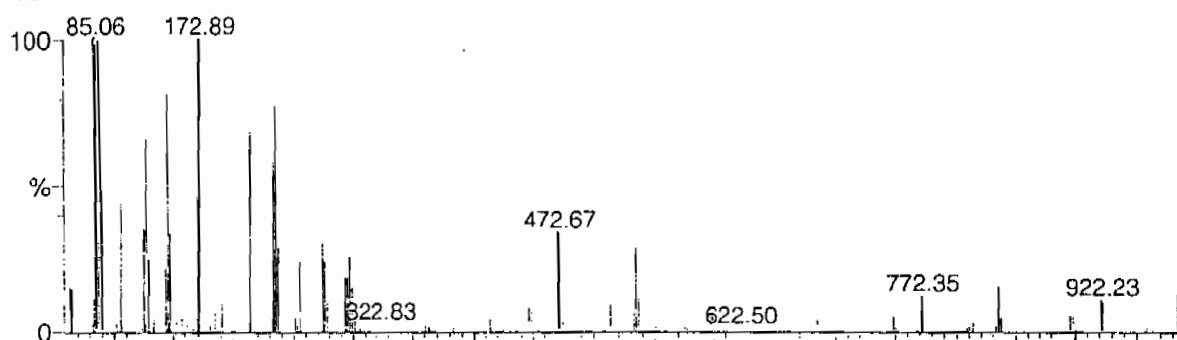
Calibration Report - MS1 Scanning

Page 1 of 1

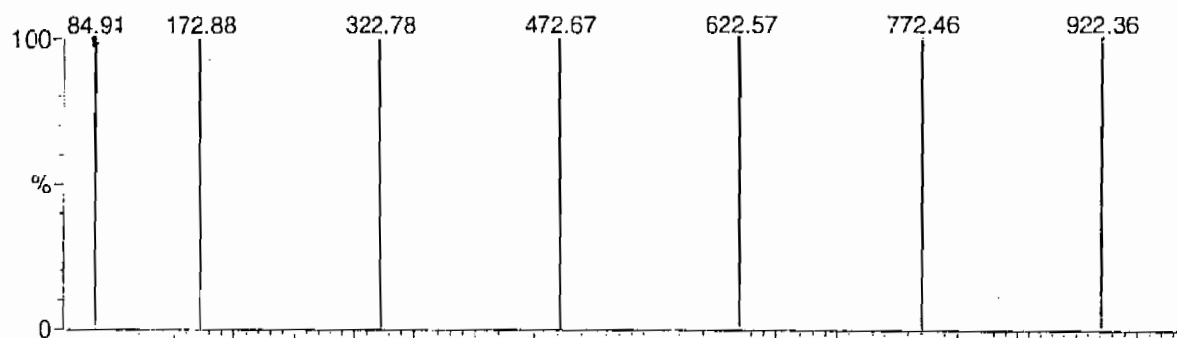
Printed: Tue Jan 08 12:20:09 2008

Data file: SCNMS1 - Uncalibrated

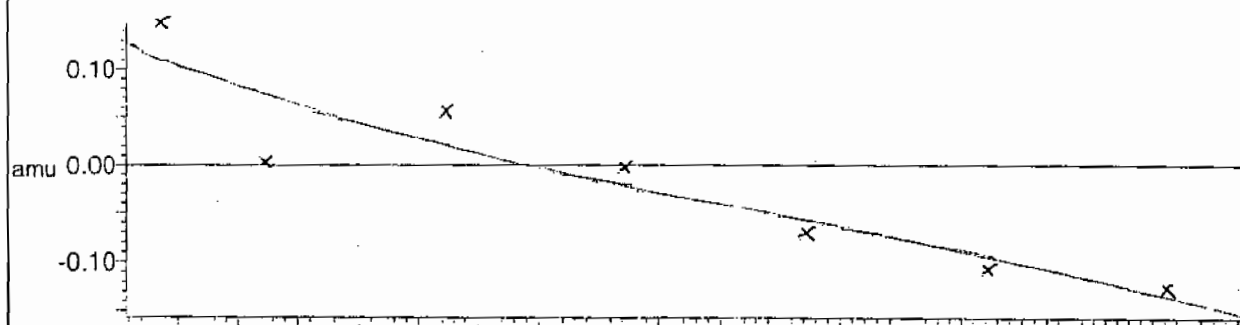
7 matches of 7 tested references



Reference file: Nairb

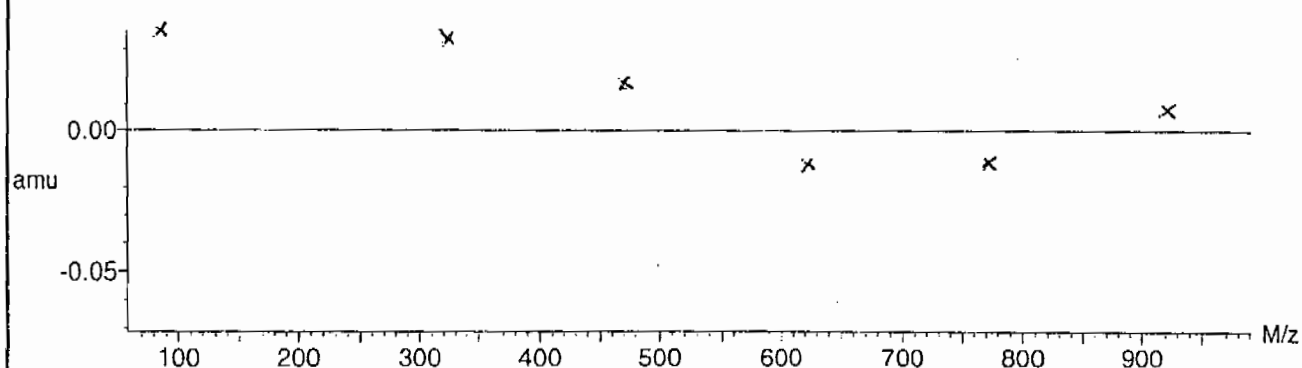


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.732691 \times 10^{-2} \pm 0.020653$



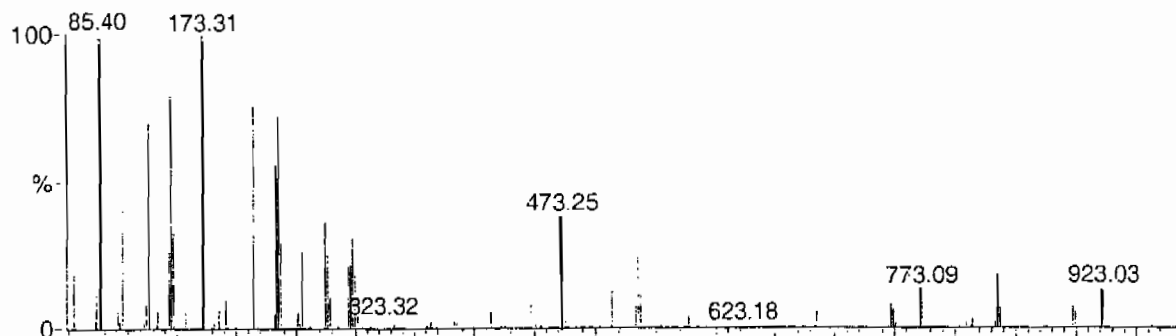
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

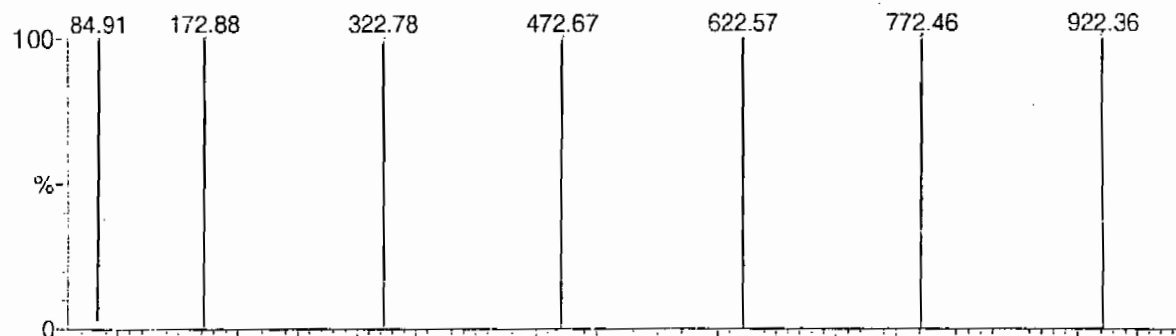
Printed: Tue Jan 08 12:21:04 2008

Data file: FASTMS1 - Uncalibrated

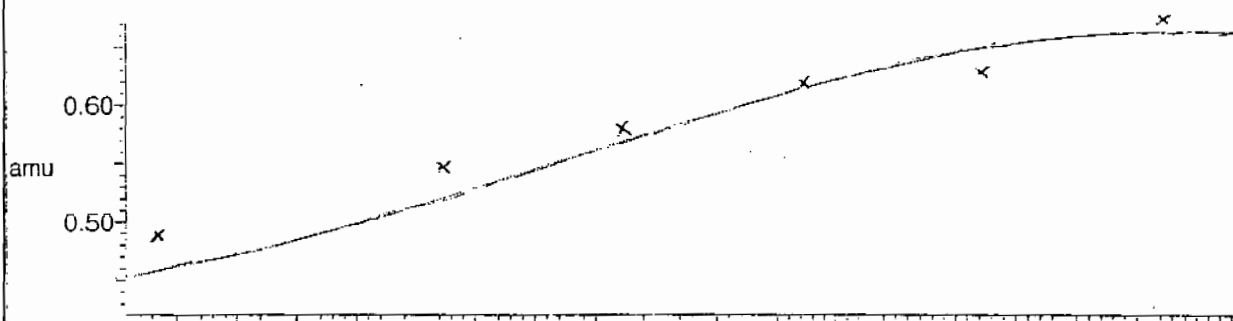
7 matches of 7 tested references



Reference file: Nairb

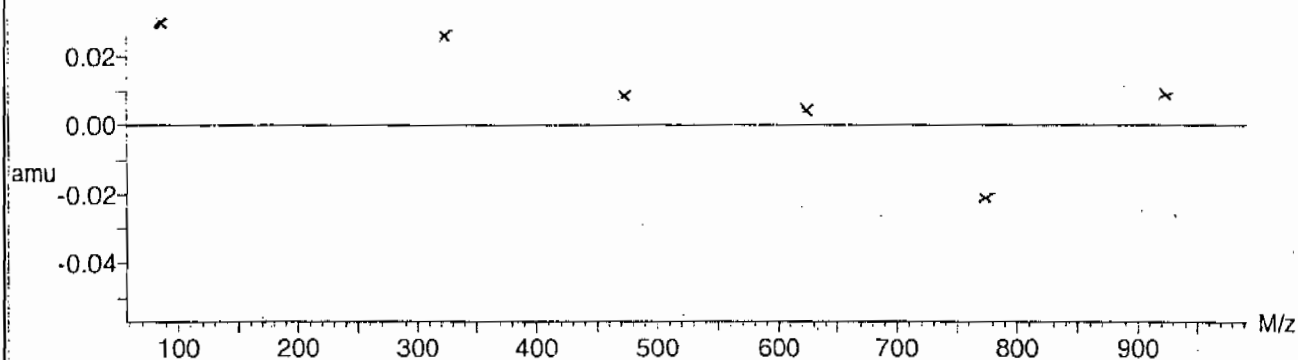


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.224580 \times 10^{-2} \pm 0.016544$

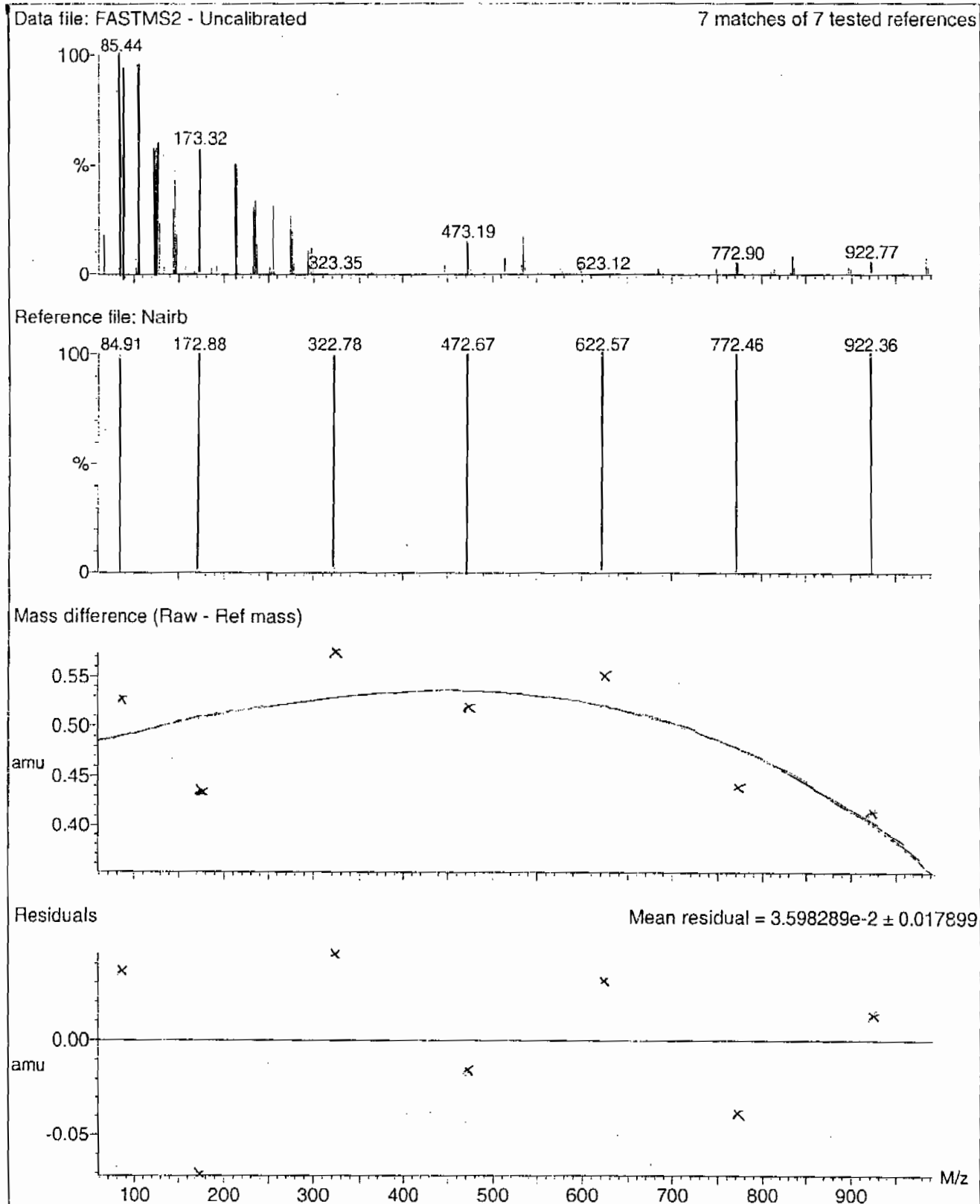




Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008



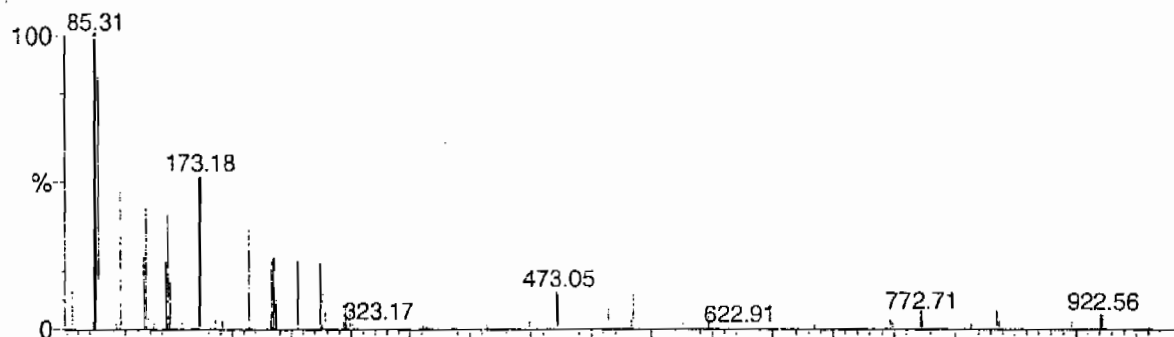
Calibration Report - MS2 Scanning

Page 1 of 1

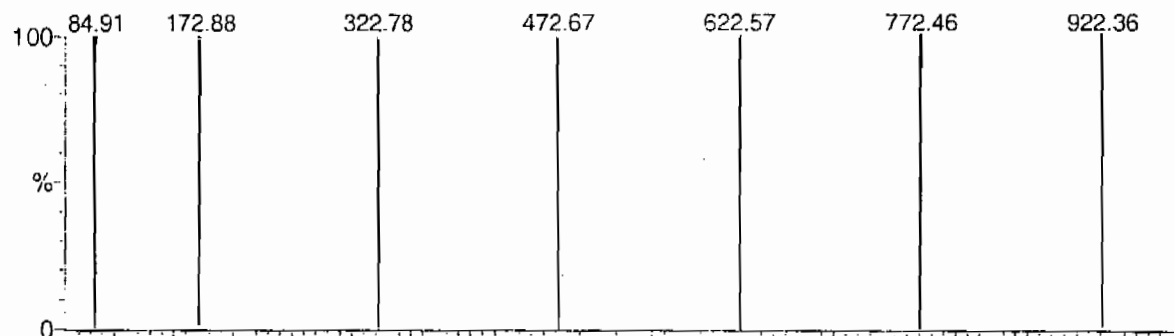
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

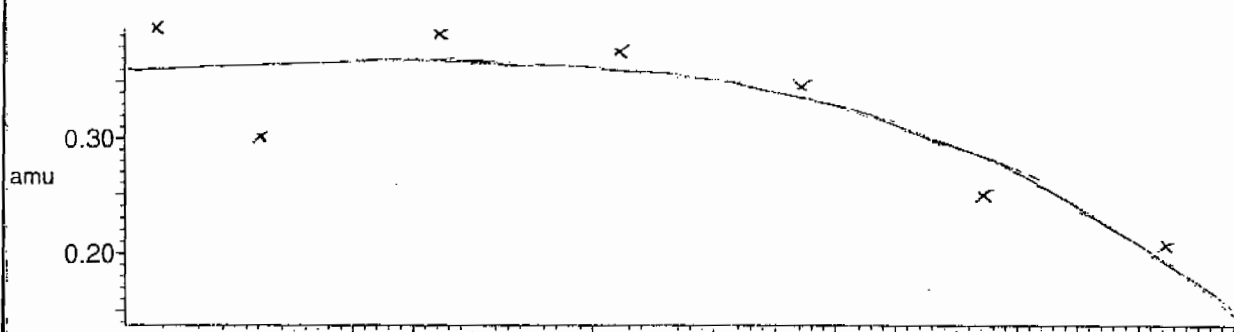
7 matches of 7 tested references



Reference file: Nairb

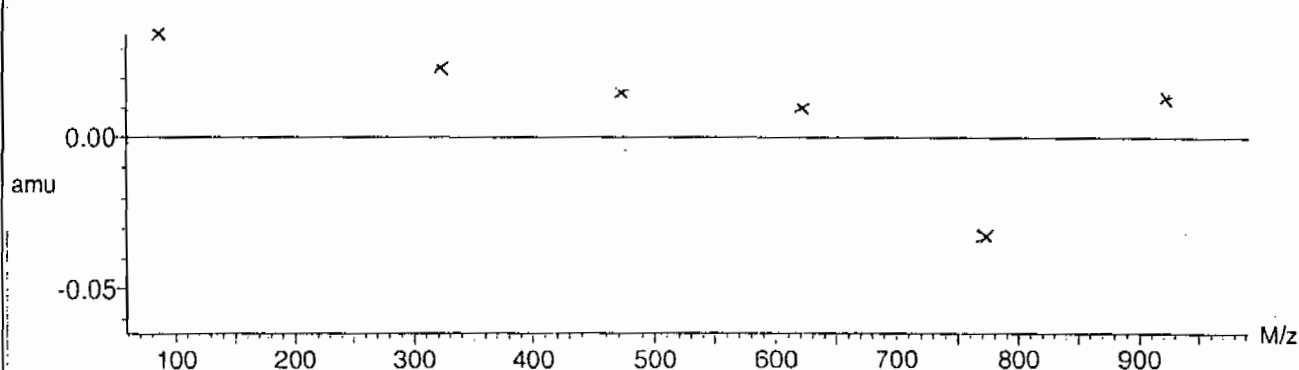


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.782494 \times 10^{-2} \pm 0.017442$



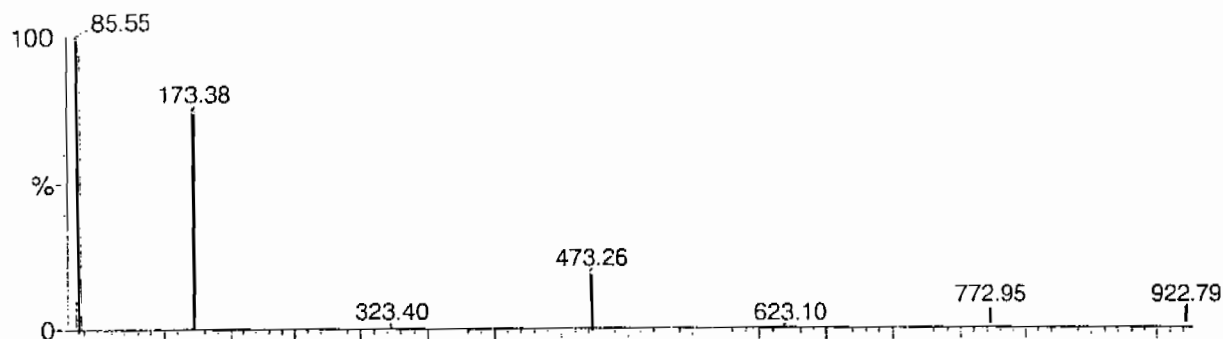
Calibration Report - MS2 Static

Page 1 of 1

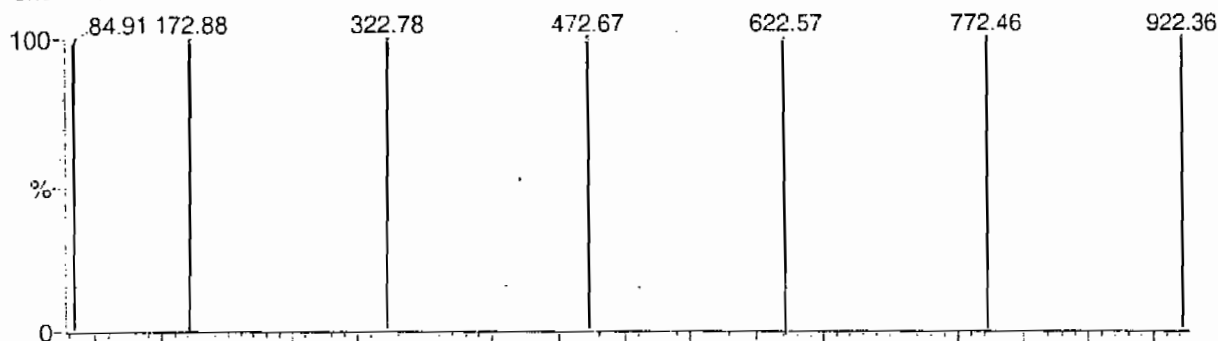
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

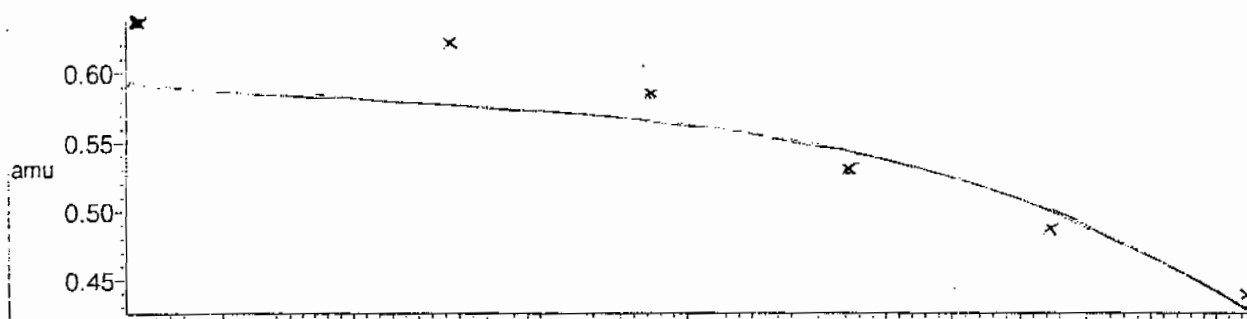
7 matches of 7 tested references



Reference file: Nairb

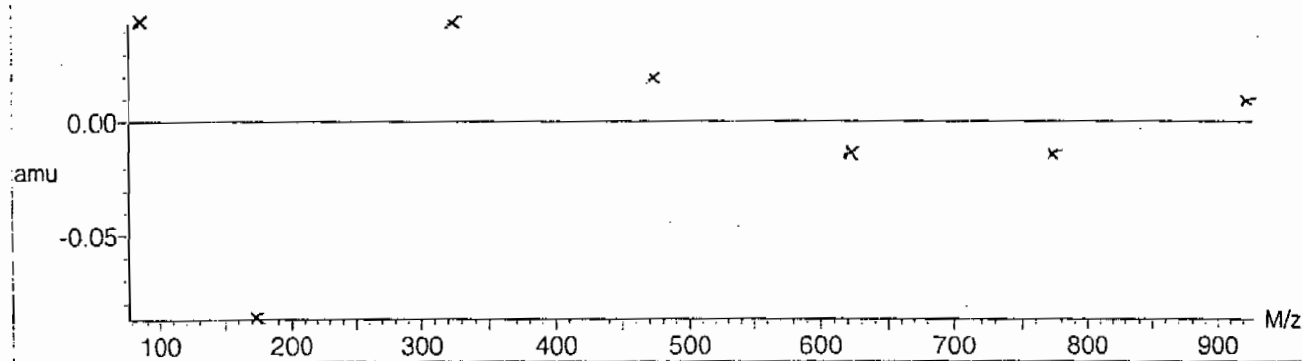


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.295980 \times 10^{-2} \pm 0.025603$



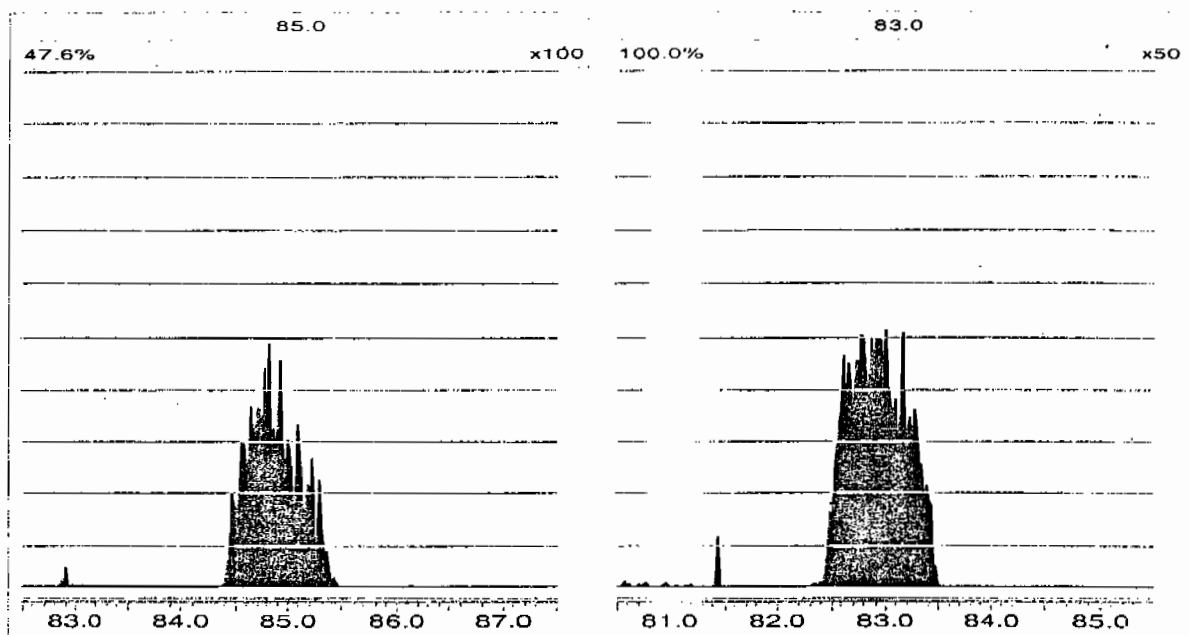
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Wednesday, February 10, 2010 14:19:34 Eastern Standard Time



## Perchlorate RT And Area Summary

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1433

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0210006a	10-FEB-10	22910.4				
Lower Area Limit			11455.2				
Upper Area Limit			45820.8				
1202028867	per0210038a	10-FEB-10 21:08	21819.6	3.07	3.0728	1.001	
1202028868	per0210039a	10-FEB-10 21:16	21315.1	3.06	3.0728	1.004	
1202028871	per0210040a	10-FEB-10 21:24	22231.8	3.09	3.11007	1.006	
245688001	per0210042a	10-FEB-10 21:40	21319.1	3.06	3.06048	1	
1202028869	per0210043a	10-FEB-10 21:48	21125.5	3.06	3.07283	1.004	
1202028870	per0210044a	10-FEB-10 21:56	21886.7	3.05	3.06052	1.003	
245688002	per0210045a	10-FEB-10 22:04	22446.1	3.06	3.0728	1.004	
245688003	per0210046a	10-FEB-10 22:12	22646.8	3.05	3.04802	.999	

## Perchlorate RT And Area Summary

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1433Lab Code: GELInstrument ID: LCMSMSHPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0210006a	10-FEB-10	22910.4				
Lower Area Limit			11455.2				
Upper Area Limit			45820.8				
245688004	per0210047a	10-FEB-10 22:20	22434.6	3.05	3.06048	1.003	
245688005	per0210051a	10-FEB-10 22:53	22505.2	3.04	3.03553	.999	
245688006	per0210052a	10-FEB-10 23:01	22662.6	3.05	3.06048	1.003	
245688007	per0210053a	10-FEB-10 23:09	22399.4	3.04	3.04802	1.003	
245688008	per0210054a	10-FEB-10 23:17	21879.9	3.04	3.04803	1.003	
245688009	per0210055a	10-FEB-10 23:25	21581.6	3.02	3.03553	1.005	
245688010	per0210056a	10-FEB-10 23:33	22908.4	3.04	3.04803	1.003	
245688011	per0210057a	10-FEB-10 23:41	23379.7	3.02	3.03555	1.005	

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0210006a	10-FEB-10	22910.4				
Lower Area Limit			11455.2				
Upper Area Limit			45820.8				
245688012	per0210058a	10-FEB-10 23:49	21138.3	3.02	3.03557	1.005	
245688013	per0210059a	10-FEB-10 23:57	22136.3	3.01	3.03558	1.008	
245688014	per0210060a	11-FEB-10 00:05	21717.6	3.02	3.048	1.009	

# SAMPLE DATA



Perchlorate Analysis Data Sheet

Client Sample No.  
RE15-10-7883

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Date Received: 28-JAN-10

Method: SW846 6850 Modified

GEL Job No (SDG): 10-1433

Matrix: SOIL

GEL Sample ID: 245688001

Extraction Batch ID: 947147

Date Filtered: 06-FEB-10

Extraction Type: Solid Prep

Injection Volume (uL): 20

%Solids: 69

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate Isotope Ratio						1	10-FEB-10 21:40	per0210042a
14797-73-0	Perchlorate-101	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate-O(18)			6.74	ug/kg		1	10-FEB-10 21:40	per0210042a

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

\*Concentration =

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

**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

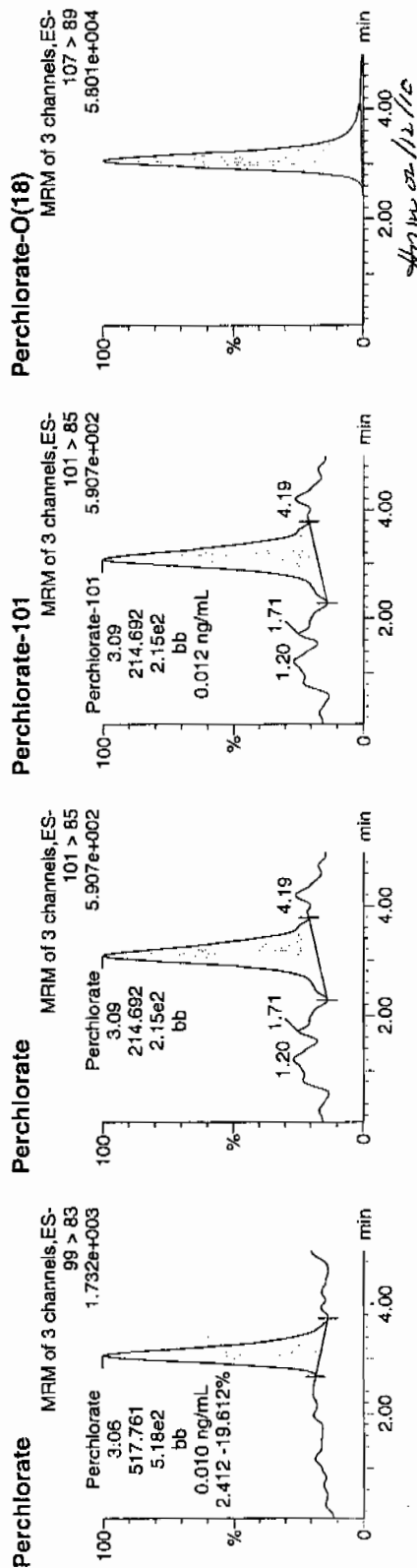
Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210042a  
Date: 10-Feb-2010  
Time: 21:40:33  
ID: 245688001  
Vial: 2:1,E

02-12-10

15000 | 947143 | 3025 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec.	%Dev.	S/N	Ion Ratio
245688001	Perchlorate	99 > 83	3.06	517.761	517.761	bb			0.0096			64.285	2.41
245688001	Perchlorate-101	101 > 85	3.09	214.692	214.692	bb			0.0123			27.826	
245688001	Perchlorate-O(18)	107 > 89	3.06	21319.111	21319.111	bb			0.4647	92.94	-7.06	3001.6...	

P perchlorate Analysis Data Sheet

Client Sample No.

RE15-10-7884

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Date Received: 28-JAN-10

Method: SW846 6850 Modified

GEL Job No (SDG): 10-1433

Matrix: SOIL

GEL Sample ID: 245688002

Extraction Batch ID: 947147

Date Filtered: 06-FEB-10

Extraction Type: Solid Prep

Injection Volume (uL): 20

%Solids: 94.2

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:04	per0210045a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate-O(18)			5.19	ug/kg		1	10-FEB-10 22:04	per0210045a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids  
Aliquot

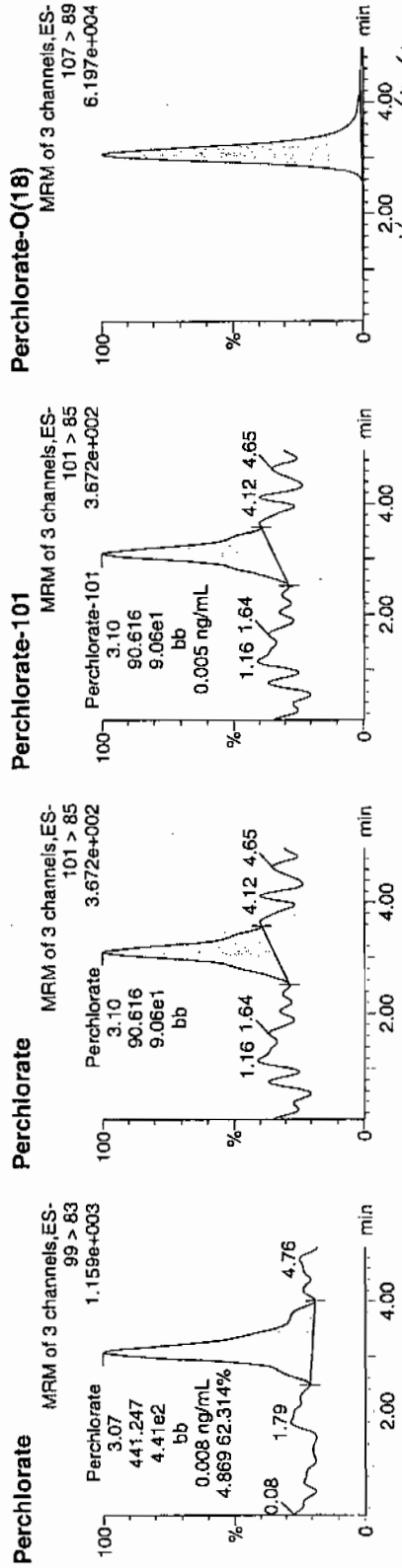
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210045a  
Date: 10-Feb-2010  
Time: 22:04:38  
ID: 245688002  
Vial: 2:2,B

02-12-10  
LAW | 94748 | 3020 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688002	Perchlorate	99 > 83	3.07	441.247	441.247	bb			0.0082			61.169	4.87
245688002	Perchlorate-101	101 > 85	3.10	90.616	90.616	bb			0.0052			20.628	
245688002	Perchlorate-O(18)	107 > 89	3.06	22446.082	22446.082	bb			0.4892	97.85	-2.15	805.047	

0.004  
2.0.0500

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7932

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688003

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 90.8

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:12	per0210046a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate-O(18)			5.44	ug/kg		1	10-FEB-10 22:12	per0210046a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1  
Aliquot %Solids

Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

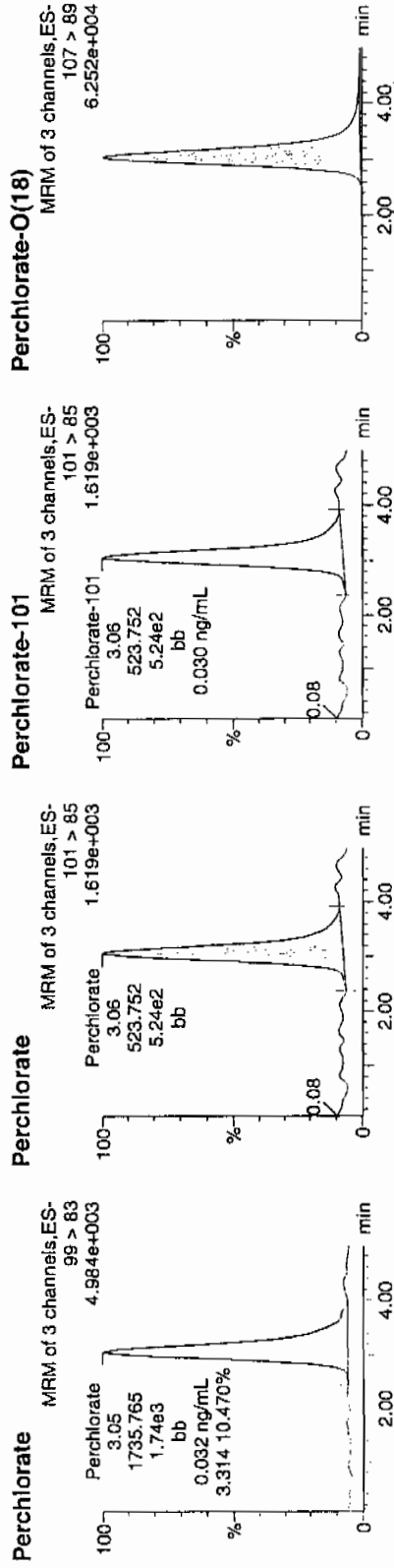
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Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210046a  
Date: 10-Feb-2010  
Time: 22:12:40  
ID: 245688003  
Vial: 2:2,C

02-12-10

17200 | 947143 | 50000 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688003	Perchlorate	99 > 83	3.05	1735.765	1735.765	bb			0.0323			193.501	3.31
245688003	Perchlorate-101	101 > 85	3.06	523.752	523.752	bb			0.0301			97.015	
245688003	Perchlorate-O(18)	107 > 89	3.05	22646.762	22646.762	bb			0.4936	98.72	-1.28	1145.1...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 947147  
 Extraction Type: Solid Prep  
 Client Sample No. RE15-10-7931  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688004  
 Date Filtered: 06-FEB-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 83  
 Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:20	per0210047a
14797-73-0	Perchlorate-101	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate-O(18)			5.90	ug/kg		1	10-FEB-10 22:20	per0210047a

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

\*Concentration =  
 Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Aliquot}}$  X  $\frac{1}{\% \text{Solids}}$

Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210047a

Date: 10-Feb-2010

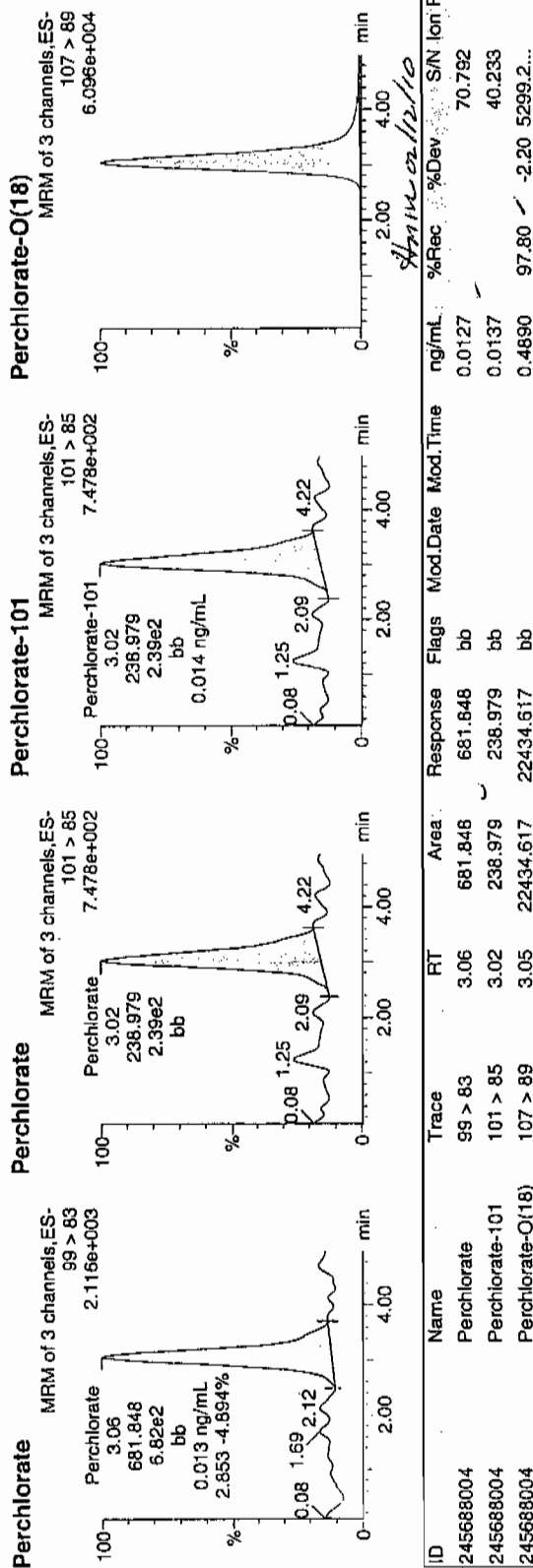
Time: 22:20:42

ID: 245688004

Vial: 2:2,D

02.12.10

1.947143 | 5000 | 11





Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 947147  
 Extraction Type: Solid Prep  
 Client Sample No. RE15-10-7938  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688005  
 Date Filtered: 06-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 96.4

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>a</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:53	per0210051a
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate-O(18)			5.09	ug/kg		1	10-FEB-10 22:53	per0210051a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids  
 Aliquot

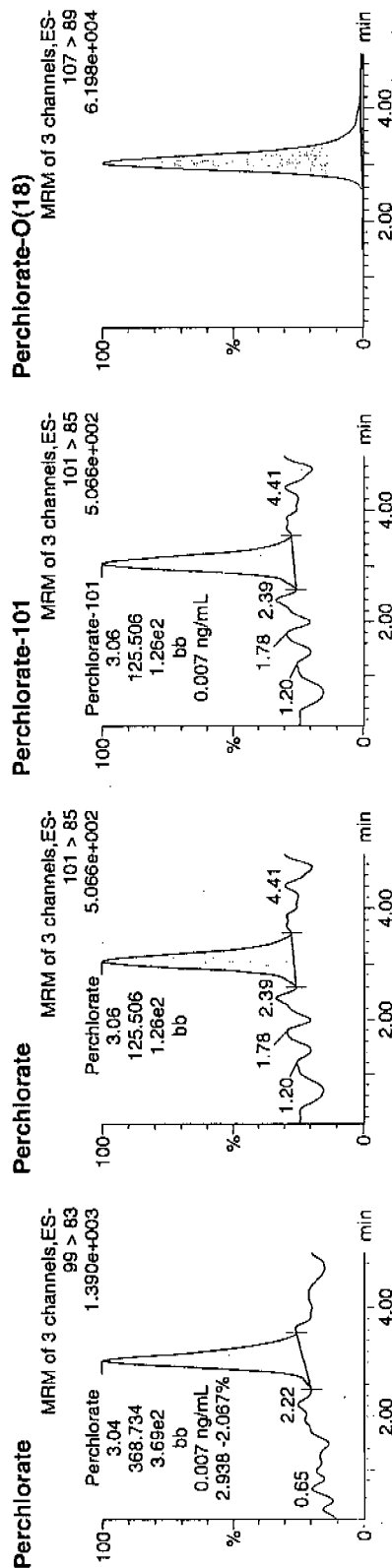
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210051a  
Date: 10-Feb-2010  
Time: 22:53:05  
ID: 245688005  
Vial: 2:2,E

02-12-10  
107148 | 5000 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688005	Perchlorate	99 > 83	3.04	368.734	368.734	bb			0.0069			95.359	2.94
245688005	Perchlorate-101	101 > 85	3.06	125.506 ✓	125.506	bb			0.0072			17.526	
245688005	Perchlorate-O(18)	107 > 89	3.04	22505.156	22505.156	bb			0.4905	98.11	-1.89	3635.2...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 947147  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-7933  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688006  
 Date Filtered: 06-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 79

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:01	per0210052a
14797-73-0	Perchlorate-101	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate-O(18)			6.22	ug/kg		1	10-FEB-10 23:01	per0210052a

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

\*Concentration =  
 Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Aliquot}}$  X  $\frac{1}{\% \text{Solids}}$

**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210052a

Date: 10-Feb-2010

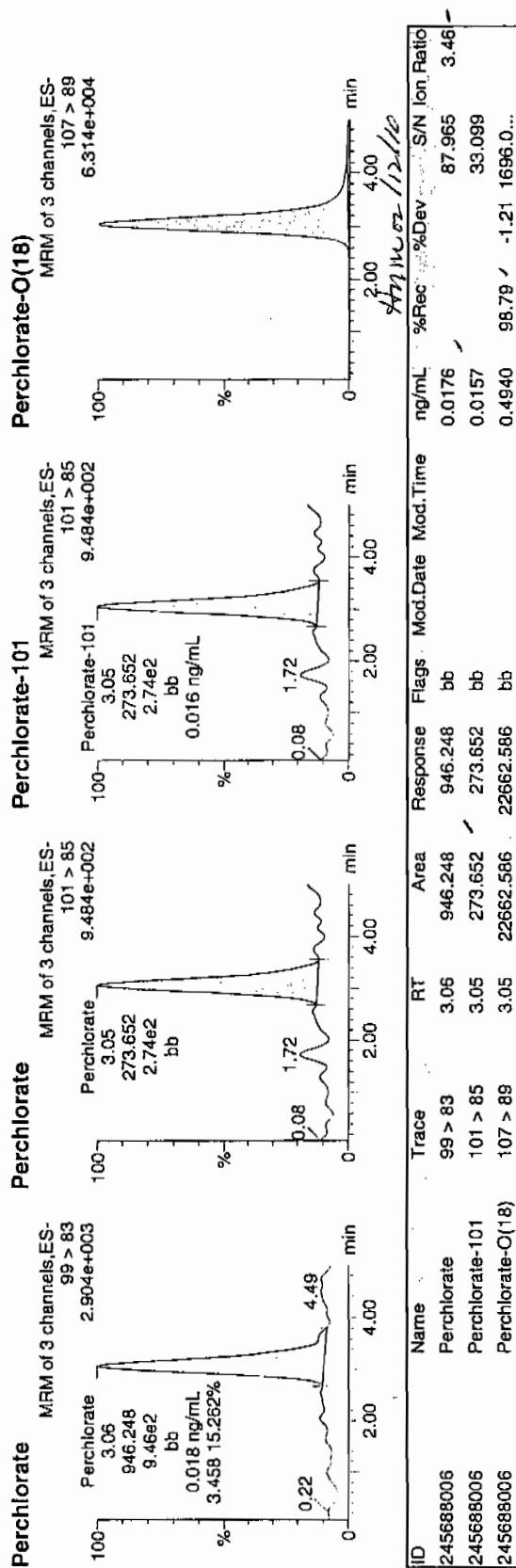
Time: 23:01:18

ID: 245688006

Vial: 2:2,F

02-12-10

LANU 1947148 | 5020 | 11



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7939

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688007

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte <sup>a</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:09	per0210053a
14797-73-0	Perchlorate-101	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate-O(18)			6.41	ug/kg		1	10-FEB-10 23:09	per0210053a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1  
Aliquot %Solids

Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210053a

Date: 10-Feb-2010

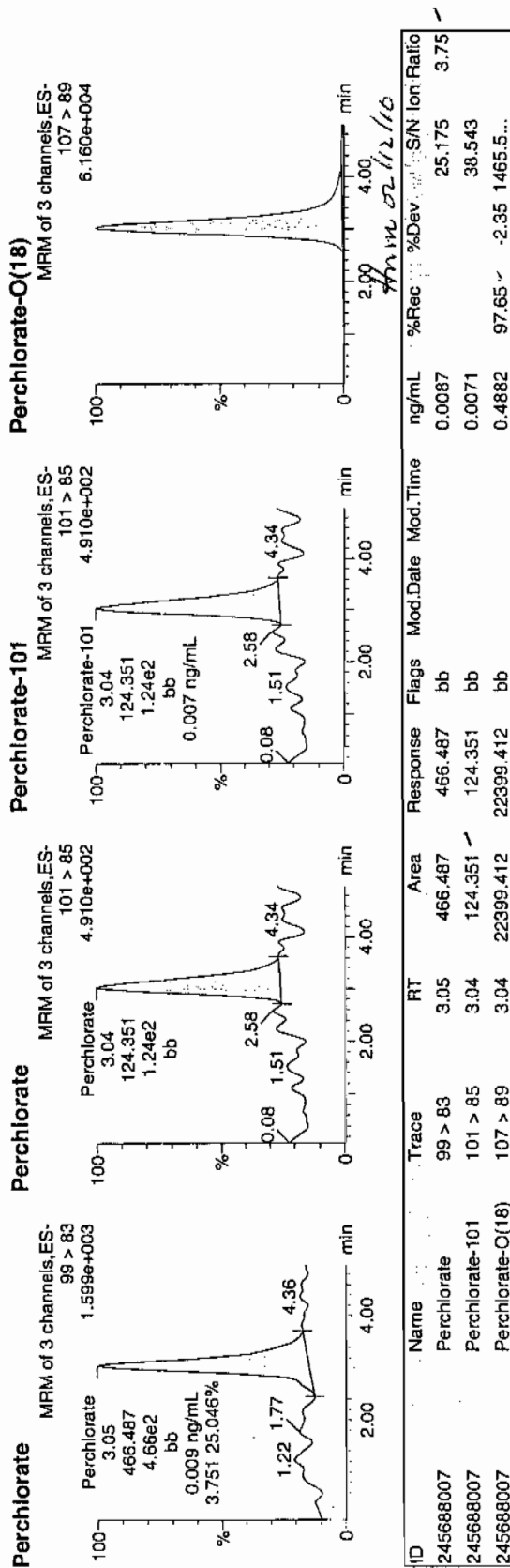
Time: 23:09:19

ID: 245688007

Vial: 2:3,A

02-12-10

141001947148 / 5020 / 11



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 247147

Extraction Type: Solid Prep

Client Sample No.

RE15-10-7936

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688008

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.3

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:17	per0210054a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate-O(18)			4.95	ug/kg		1	10-FEB-10 23:17	per0210054a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1  
Aliquot %Solids

Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210054a

Date: 10-Feb-2010

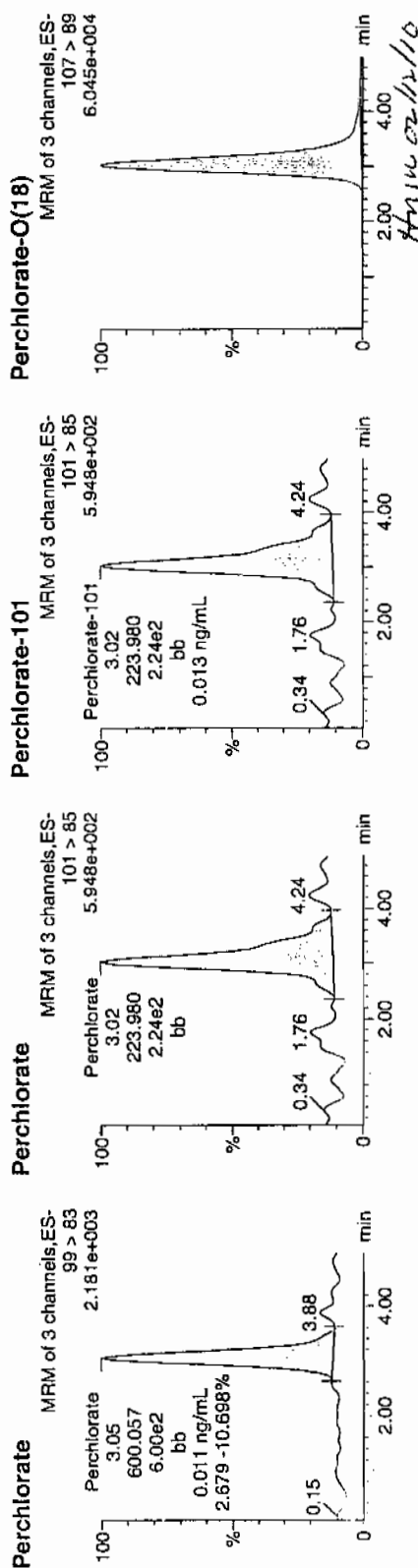
Time: 23:17:23

ID: 245688008

Vial: 2:3,B

02-12-10

12202 | 947142 | 50220 | 111





Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 947147  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-7935  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688009  
 Date Filtered: 06-FEB-10  
 Injection Volume (mL): 20  
 %Solids: 76

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:25	per0210055a
14797-73-0	Perchlorate-101	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate-O(18)			6.16	ug/kg		1	10-FEB-10 23:25	per0210055a

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

\*Concentration =  
 Instrument Value X Concentrated Extract Volume X 1  
 Aliquot %Solids

**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210055a

Date: 10-Feb-2010

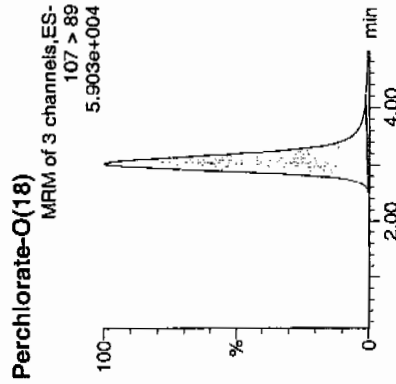
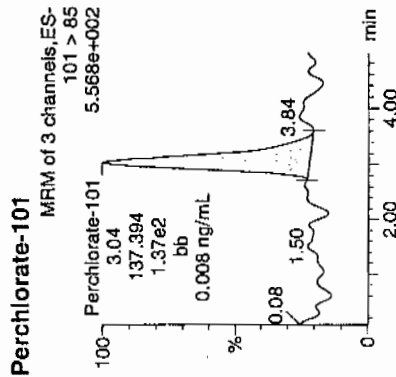
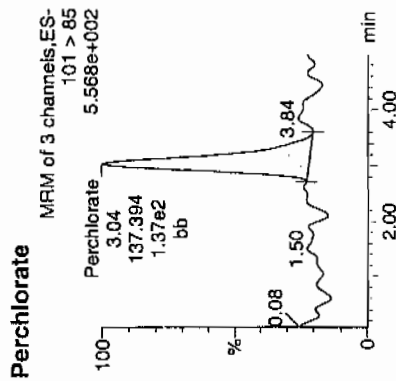
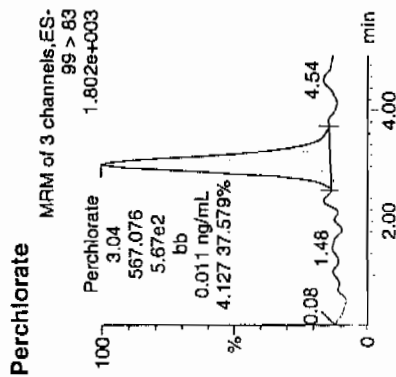
Time: 23:25:25

ID: 245688009

Vial: 2:3,C

1.972 / 947148 / 5020 / 11

02-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688009	Perchlorate	99 > 83	3.04	567.076	567.076	bb			0.0106			49.308	4.13
245688009	Perchlorate-101	101 > 85	3.04	137.394	137.394	bb			0.0079			16.695	
245688009	Perchlorate-O(18)	107 > 89	3.02	21581.623	21581.623	bb			0.4704	94.08	-5.92	1111.9...	

OK 94  
20.0500

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7934

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688010

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.21	2.43	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate Isotope Ratio			3.22			1	10-FEB-10 23:33	per0210056a
14797-73-0	Perchlorate-101	.554	2.21	2.32	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate-Q(18)			5.53	ug/kg		1	10-FEB-10 23:33	per0210056a

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

\*Concentration =

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

**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210056a

Date: 10-Feb-2010

Time: 23:33:28

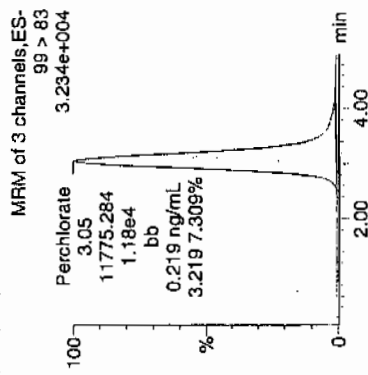
ID: 245688010

Vial: 2:3,D

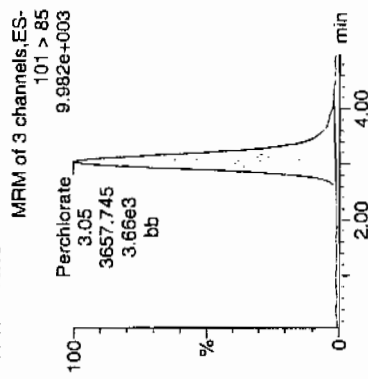
02-12-10

15720 | 947148 | 50720 | 11

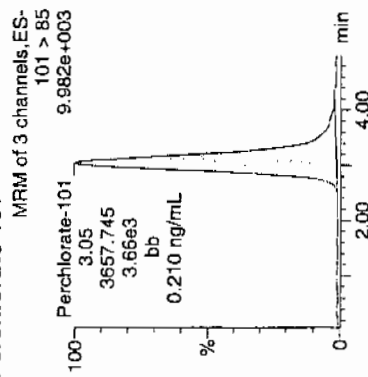
**Perchlorate**



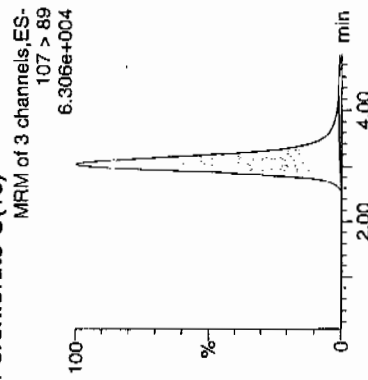
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688010	Perchlorate	99 > 83	3.05	11775.284	11775.284	bb			0.2192			1132.2...	3.22
245688010	Perchlorate-101	101 > 85	3.05	3657.745	3657.745	bb			0.2100			828.571	
245688010	Perchlorate-O(18)	107 > 89	3.04	22908.422	22908.422	bb			0.4993	99.86	-0.14	2561.9...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 247147  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-7940  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688011  
 Date Filtered: 06-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 95.1

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.525	2.1	0.810	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate Isotope Ratio			2.94			1	10-FEB-10 23:41	per0210057a
14797-73-0	Perchlorate-101	.525	2.1	0.849	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate-O(18)			5.36	ug/kg		1	10-FEB-10 23:41	per0210057a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1  
 Aliquot %Solids

Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210057a

Date: 10-Feb-2010

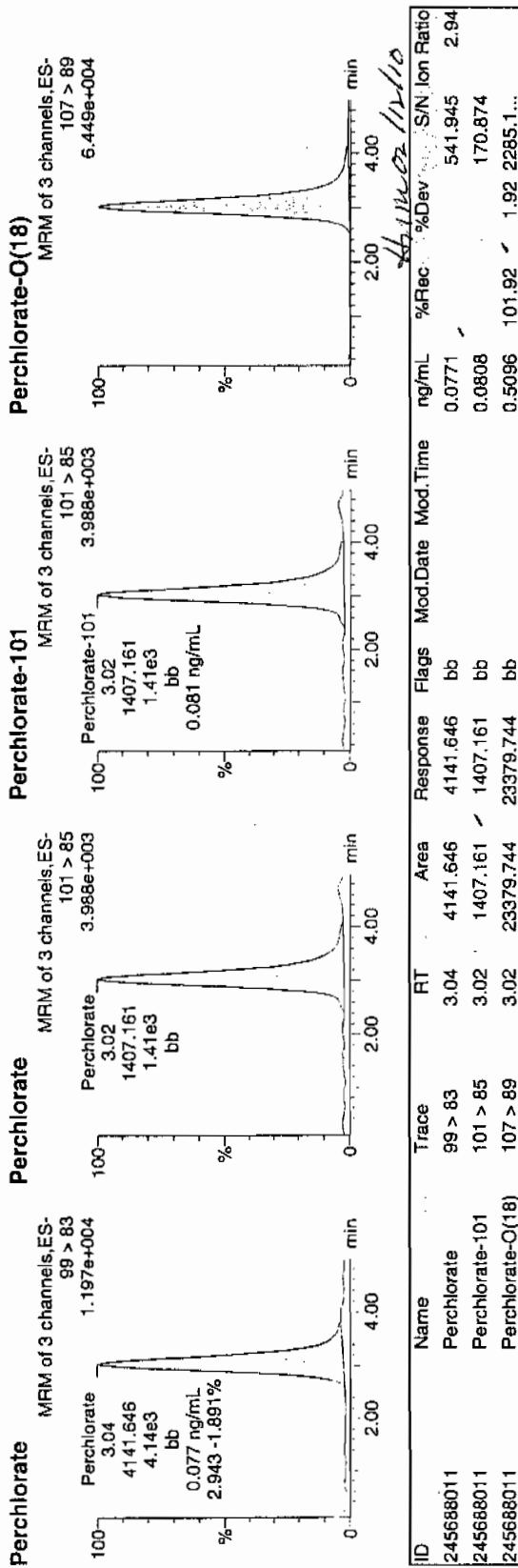
Time: 23:41:29

ID: 245688011

Vial: 2:3,E

6.449e+004  
02-12-10

14202 | 447413 | 50220 | 11



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7937

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688012

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:49	per0210058a
14797-73-0	Perchlorate-101	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate-O(18)			6.05	ug/kg		1	10-FEB-10 23:49	per0210058a

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

\*Concentration =

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

**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210058a

Date: 10-Feb-2010

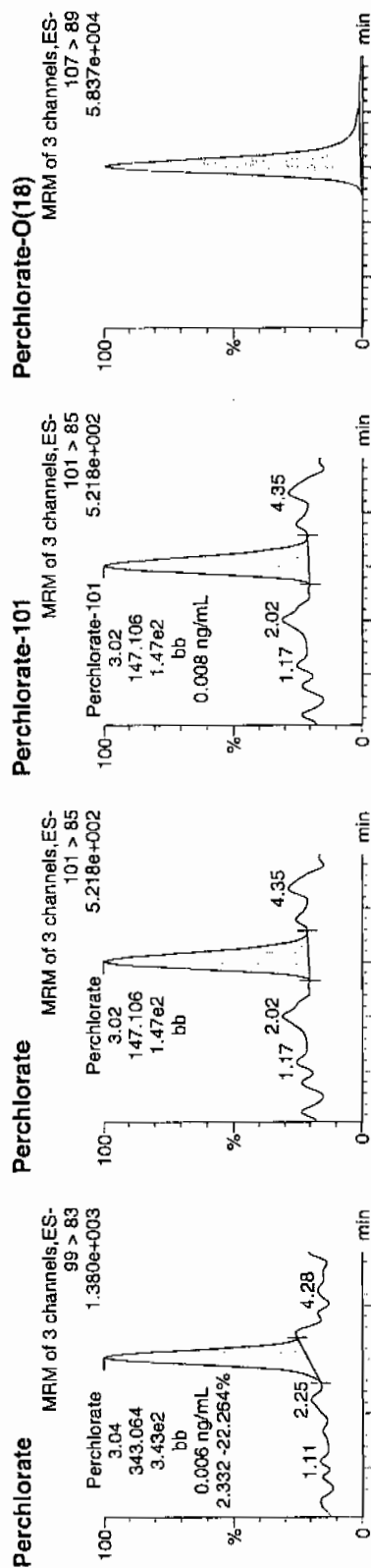
Time: 23:49:31

ID: 245688012

Vial: 2:3,F

02-12-10

11/11/10 11:11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688012	Perchlorate	99 > 83	3.04	343.064	343.064	bb			0.0064			35.393	2.33
245688012	Perchlorate-101	101 > 85	3.02	147.106	147.106	bb			0.0084			18.546	
245688012	Perchlorate-O(18)	107 > 89	3.02	21138.285	21138.285	bb			0.4607	92.15	-7.85	1036.3...	



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8056

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688013

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:57	per0210059a
14797-73-0	Perchlorate-101	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate-O(18)			5.00	ug/kg		1	10-FEB-10 23:57	per0210059a

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

\*Concentration =

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

Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210059a

Date: 10-Feb-2010

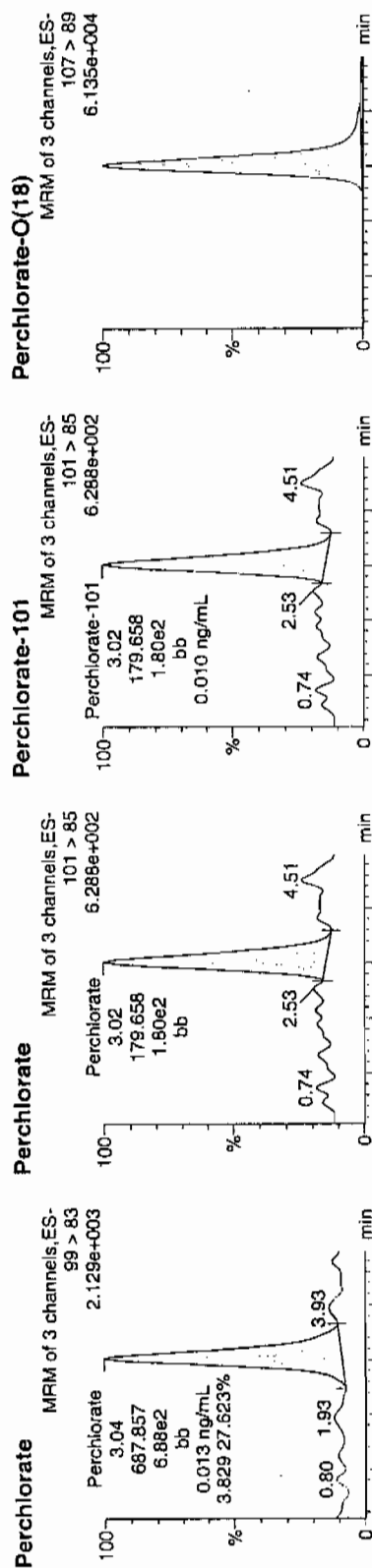
Time: 23:57:32

ID: 245688013

Vial: 2:4,A

6633  
02-12-10

LAUW | 947143 | 50720111



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688013	Perchlorate	99 > 83	3.04	687.857	687.857	bb			0.0128			39.719	3.83
245688013	Perchlorate-101	101 > 85	3.02	179.658	179.658	bb			0.0103			12.637	
245688013	Perchlorate-O(18)	107 > 89	3.01	22136.283	22136.283	bb			0.4825	96.50	-3.50	2702.0...	

Handwritten note: 02/12/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 947147  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-8057  
 Date Received: 28-JAN-10  
 GEL Job No (SDG): 10-1433  
 GEL Sample ID: 245688014  
 Date Filtered: 06-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 70

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate Isotope Ratio						1	11-FEB-10 00:05	per0210060a
14797-73-0	Perchlorate-101	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate-O(18)			6.74	ug/kg		1	11-FEB-10 00:05	per0210060a

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

\*Concentration =

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

Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210060a

Date: 11-Feb-2010

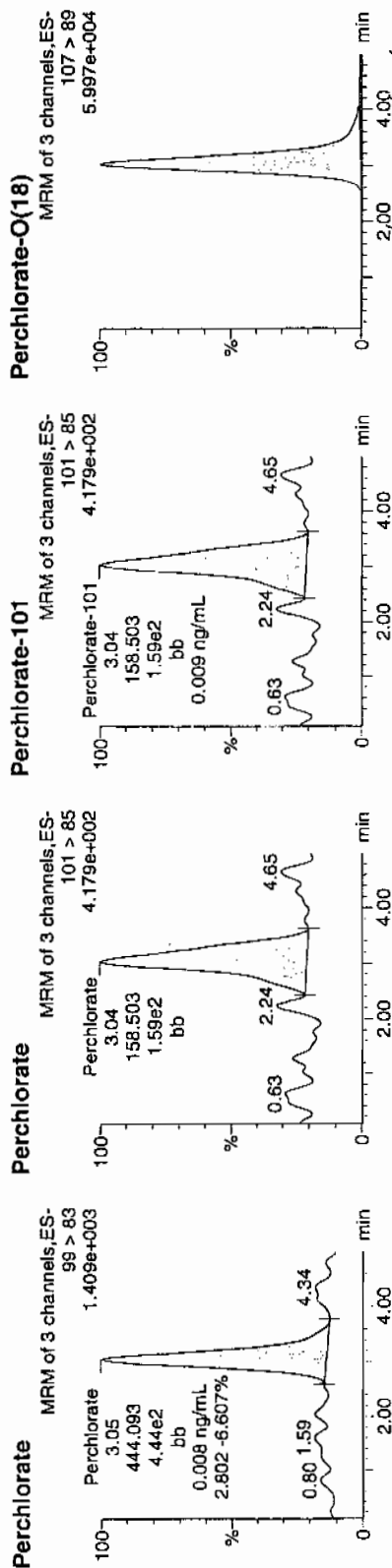
Time: 00:05:36

ID: 245688014

Vial: 2:4,B

02-12-10

12226 | 947143 | 50220 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688014	Perchlorate	99 > 83	3.05	444.093	444.093	bb			0.0083			34.852	2.80
245688014	Perchlorate-101	101 > 85	3.04	158.503	158.503	bb			0.0091			10.803	
245688014	Perchlorate-O(18)	107 > 89	3.02	21717.648	21717.648	bb			0.4734	94.67	-5.33	1693.0...	

# STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1433

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 10-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parname Perchlorate

Coefficient of Determination:

Calibration Curve: 53724.06

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1433

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 10-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Paramname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 17421.06

Response Type: External Standard

Curve Type: RF

# Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time

Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021010a.mdb 11 Feb 2010 11:00:00

Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021010a.cdb 11 Feb 2010 11:01:28

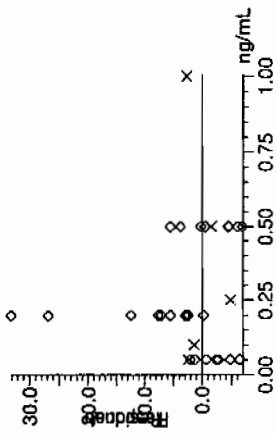
Compound name: Perchlorate

Response Factor: 53724.1

RRF SD: 1687.83, % Relative SD: 3.14166

Response type: External Std, Area

Curve type: RF



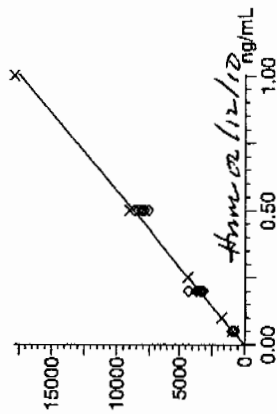
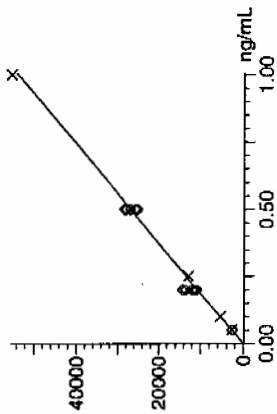
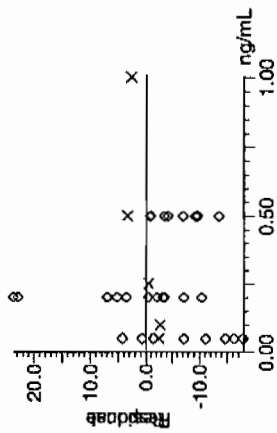
Compound name: Perchlorate-101

Response Factor: 17421.1

RRF SD: 498.485, % Relative SD: 2.86139

Response type: External Std, Area

Curve type: RF



02-12-10



Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qtd

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
 Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

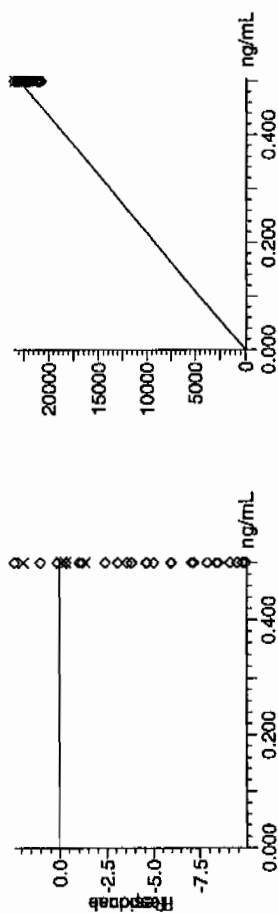
Compound name: Perchlorate-O-(18)

Response Factor: 45879.1

RRF SD: 538.911, % Relative SD: 1.17463 ✓

Response type: External Std, Area

Curve type: RF ✓



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.47	10-FEB-10 17:14	per0210009a
Perchlorate Isotope Ratio		3.28		10-FEB-10 17:14	per0210009a
Perchlorate-101	.5	.5	99.28	10-FEB-10 17:14	per0210009a

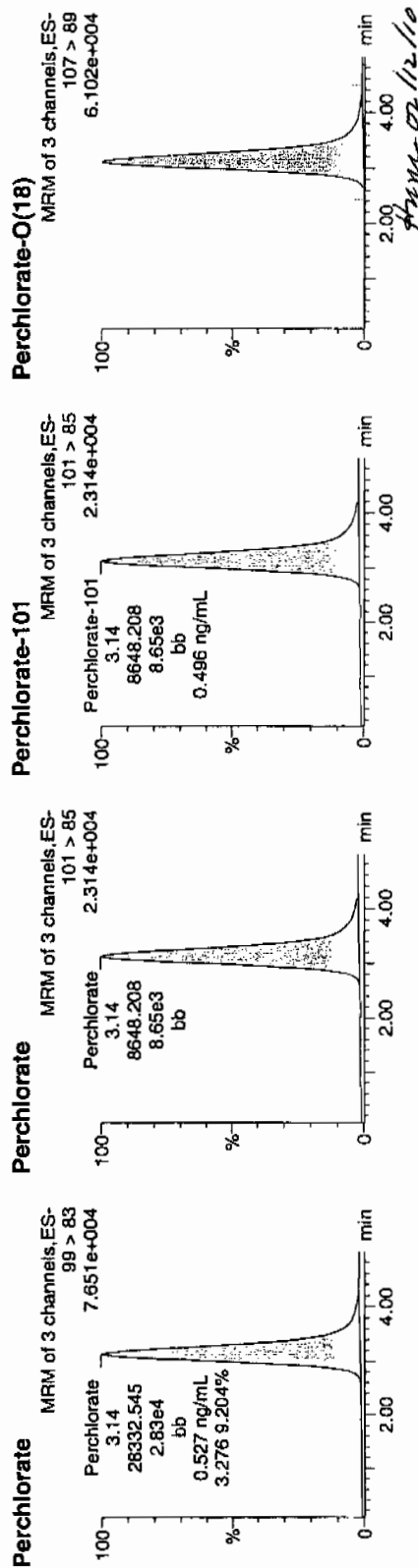
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210009a  
Date: 10-Feb-2010  
Time: 17:14:57  
ID: WCL100128-06ICV  
Vial: 1:2,A

*Per*  
*WCL*  
*02-12-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	3.14	28332.545	28332.545	bb			0.5274	105.47	5.47	2177.6...	3.28
WCL100128-06ICV	Perchlorate-101	101 > 85	3.14	8648.208	8648.208	bb			0.4964	98.28	-0.72	903.296	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	3.12	22706.332	22706.332	bb			0.4949	98.98	-1.02	2076.4...	

## Perchlorate Continuing Calibration Verification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433

Lab Code: GEL

Reporting Units: µg/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.49	10-FEB-10 18:59	per0210022a
Perchlorate Isotope Ratio		3.18		10-FEB-10 18:59	per0210022a
Perchlorate-101	.5	.48	96.44	10-FEB-10 18:59	per0210022a
Perchlorate	.5	.52	103.75	10-FEB-10 20:44	per0210035a
Perchlorate Isotope Ratio		3.23		10-FEB-10 20:44	per0210035a
Perchlorate-101	.5	.49	98.98	10-FEB-10 20:44	per0210035a
Perchlorate	.5	.5	100.2	10-FEB-10 22:28	per0210048a
Perchlorate Isotope Ratio		3.23		10-FEB-10 22:28	per0210048a
Perchlorate-101	.5	.48	95.75	10-FEB-10 22:28	per0210048a
Perchlorate	.5	.48	95.64	11-FEB-10 00:13	per0210061a
Perchlorate Isotope Ratio		3.18		11-FEB-10 00:13	per0210061a
Perchlorate-101	.5	.46	92.89	11-FEB-10 00:13	per0210061a

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qtd

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210022a

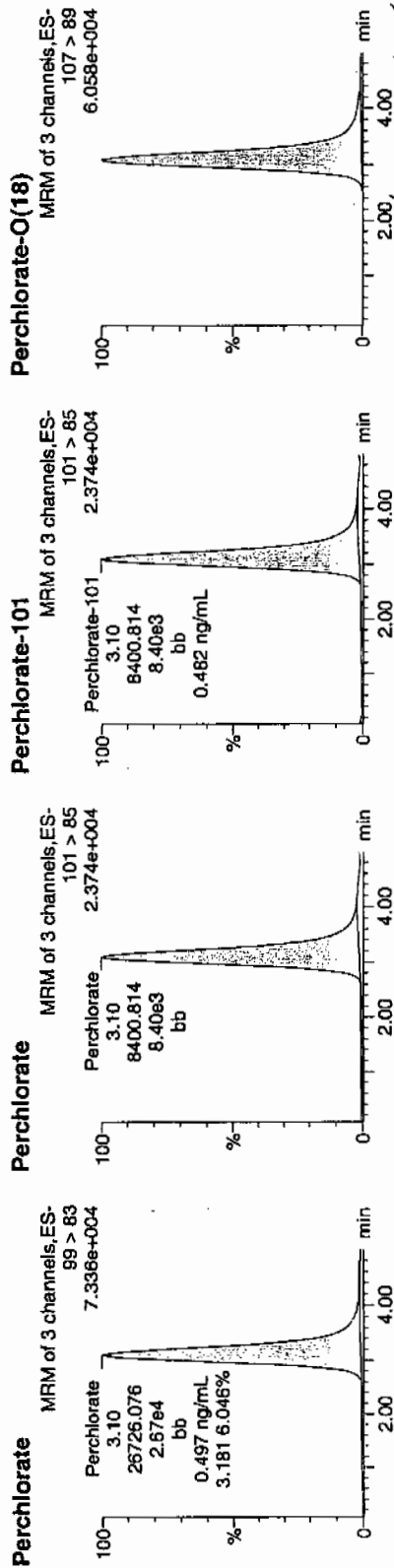
Date: 10-Feb-2010

Time: 18:59:30

ID: WCL100128-06CCV

Vial: 1:2,A

Pure  
Cus  
02-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	3.10	26726.076	26726.076	bb			0.4975	99.49	-0.51	620.949	3.18
WCL100128-06CCV	Perchlorate-101	101 > 85	3.10	8400.814	8400.814	bb			0.4822	96.44	-3.56	194.969	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	3.09	22664.828	22664.828	bb			0.4940	98.80	-1.20	2047.2...	

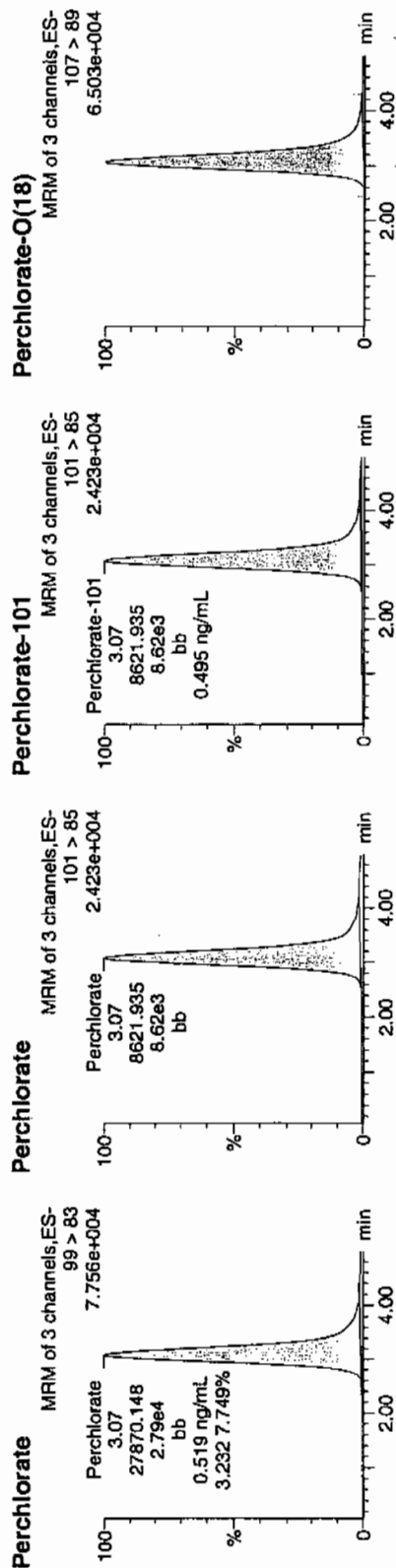
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210035a  
Date: 10-Feb-2010  
Time: 20:44:06  
ID: WCL100128-06CCV  
Vial: 1:2,A

*Pass*  
*02-12-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	IS/N	Ratio
WCL100128-06CCV	Perchlorate	99 > 83	3.07	27870.148	27870.148	bb			0.5188	103.75	3.75	3243.6...	3.23
WCL100128-06CCV	Perchlorate-101	101 > 85	3.07	8621.935	8621.935	bb			0.4949	98.98	-1.02	1297.8...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	3.06	23169.701	23169.701	bb			0.5050	101.00	1.00	2372.9...	

*47910-02/12/10*

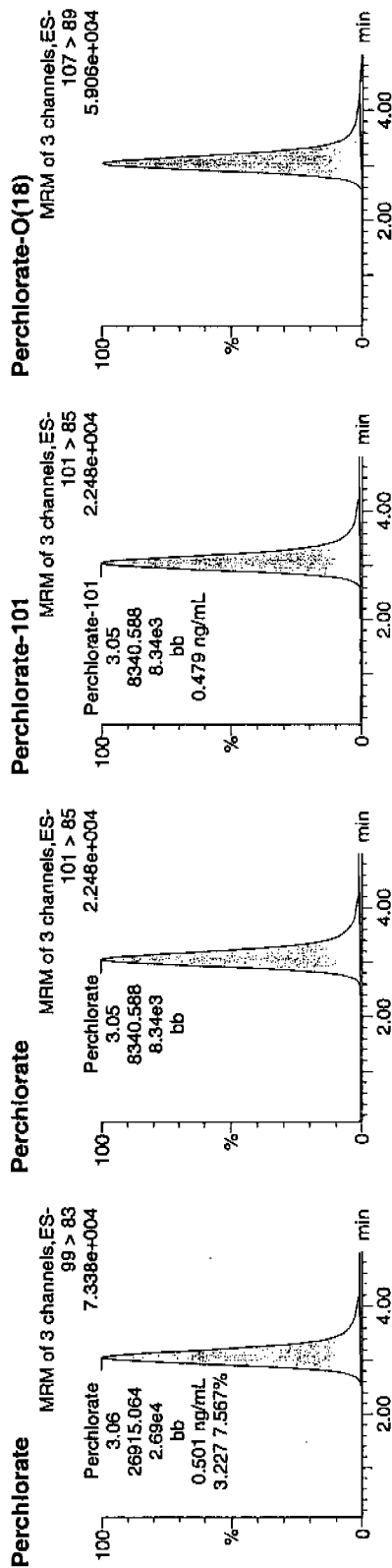
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210048a  
Date: 10-Feb-2010  
Time: 22:28:44  
ID: WCL100128-06CCV  
Vial: 1:2,A

*Pure*  
*Ans*  
*22-12-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	3.06	26915.064	26915.064	bb			0.5010	100.20	0.20	2066.6...	3.23
WCL100128-06CCV	Perchlorate-101	101 > 85	3.05	8340.588	8340.588	bb			0.4788	95.75	-4.25	1197.1...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	3.05	21560.695	21560.695	bb			0.4699	93.99	-6.01	3542.0...	

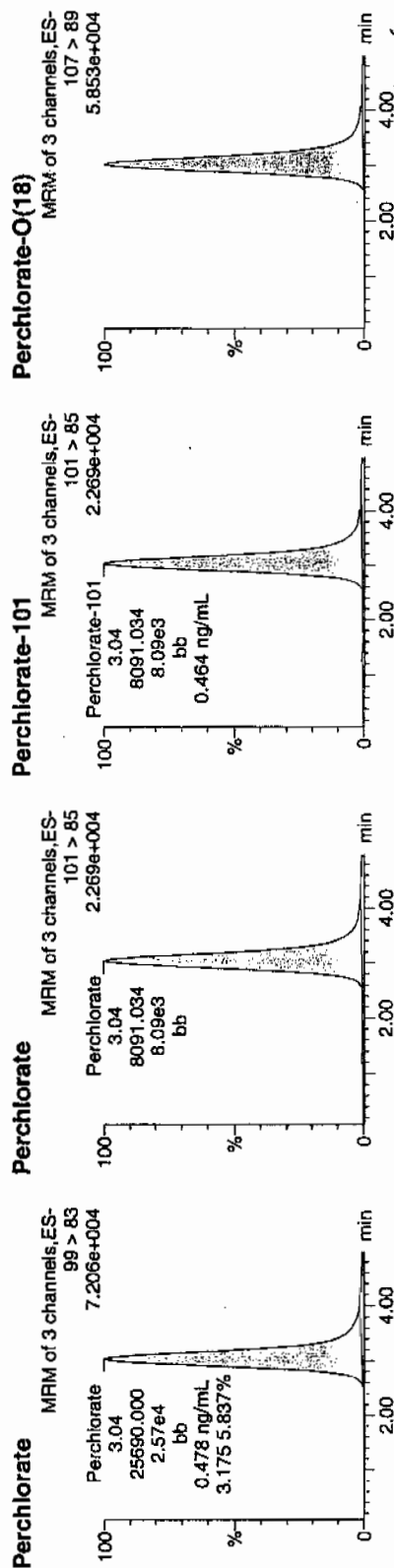
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210061a  
Date: 11-Feb-2010  
Time: 00:13:38  
ID: WCL100128-06CCV  
Vial: 1:2,A

*Purified*  
*02-12-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	3.04	25690.000	25690.000	bb			0.4782	95.64	-4.36	1151.4...	3.18
WCL100128-06CCV	Perchlorate-101	101 > 85	3.04	8091.034	8091.034	bb			0.4644	92.89	-7.11	872.620	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	3.02	20993.113	20993.113	bb			0.4576	91.52	-8.48	1280.0...	



Perchlorate MDL Verification

GEL Job No.(SDG): 10-1433

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units:  $\mu\text{g/kg}$

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	97.23	10-FEB-10 17:31	per0210011a
Perchlorate Isotope Ratio		2.88		10-FEB-10 17:31	per0210011a
Perchlorate-101	.05	.05	104.27	10-FEB-10 17:31	per0210011a
Perchlorate	.05	.05	101.19	10-FEB-10 19:15	per0210024a
Perchlorate Isotope Ratio		3.1		10-FEB-10 19:15	per0210024a
Perchlorate-101	.05	.05	100.82	10-FEB-10 19:15	per0210024a
Perchlorate	.05	.05	99.29	10-FEB-10 21:00	per0210037a
Perchlorate Isotope Ratio		3.3		10-FEB-10 21:00	per0210037a
Perchlorate-101	.05	.05	92.76	10-FEB-10 21:00	per0210037a
Perchlorate	.05	.05	102.06	10-FEB-10 22:45	per0210050a
Perchlorate Isotope Ratio		3.19		10-FEB-10 22:45	per0210050a

Perchlorate MDL Verification

GEL Job No.(SDG): 10-1433

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	98.65	10-FEB-10 22:45	per0210050a
Perchlorate	.05	.05	95.32	11-FEB-10 00:29	per0210063a
Perchlorate Isotope Ratio		3.31		11-FEB-10 00:29	per0210063a
Perchlorate-101	.05	.04	88.92	11-FEB-10 00:29	per0210063a

**Quantify Sample Report** MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210011a

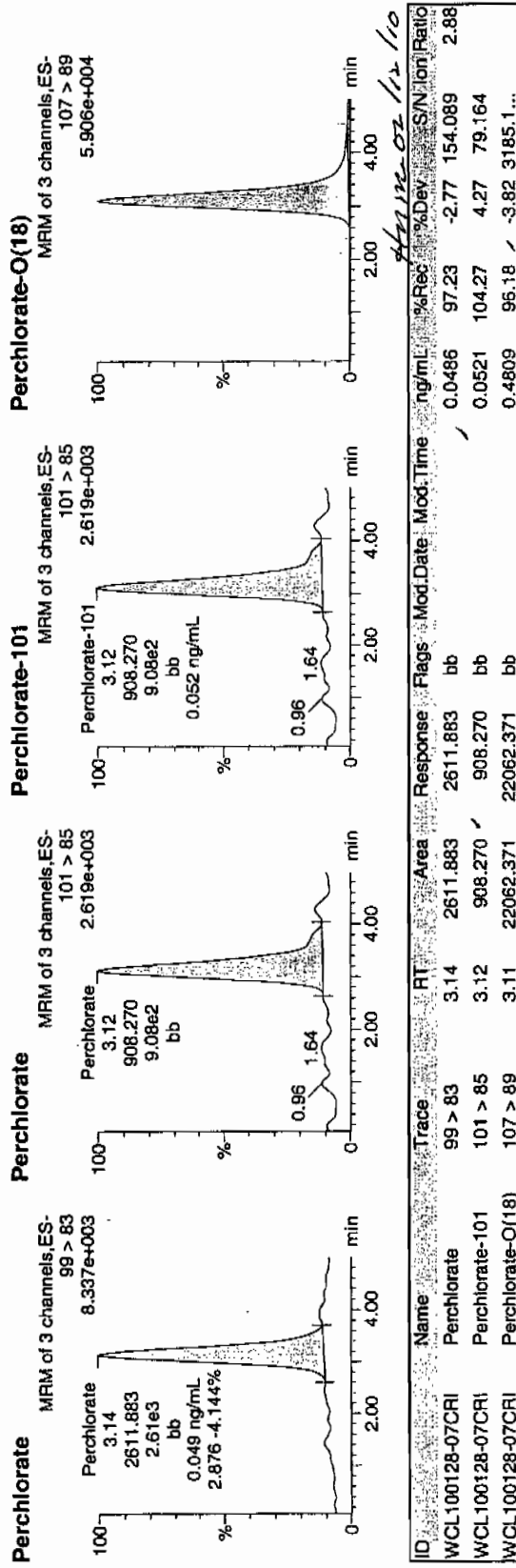
Date: 10-Feb-2010

Time: 17:31:02

ID: WCL100128-07CRI

Vial: 1:2,B

02-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	3.14	2611.883	2611.883	bb			0.0486	97.23	-2.77	154.089	2.88
WCL100128-07CRI	Perchlorate-101	101 > 85	3.12	908.270	908.270	bb			0.0521	104.27	4.27	79.164	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	3.11	22062.371	22062.371	bb			0.4809	95.18	-3.82	3185.1...	

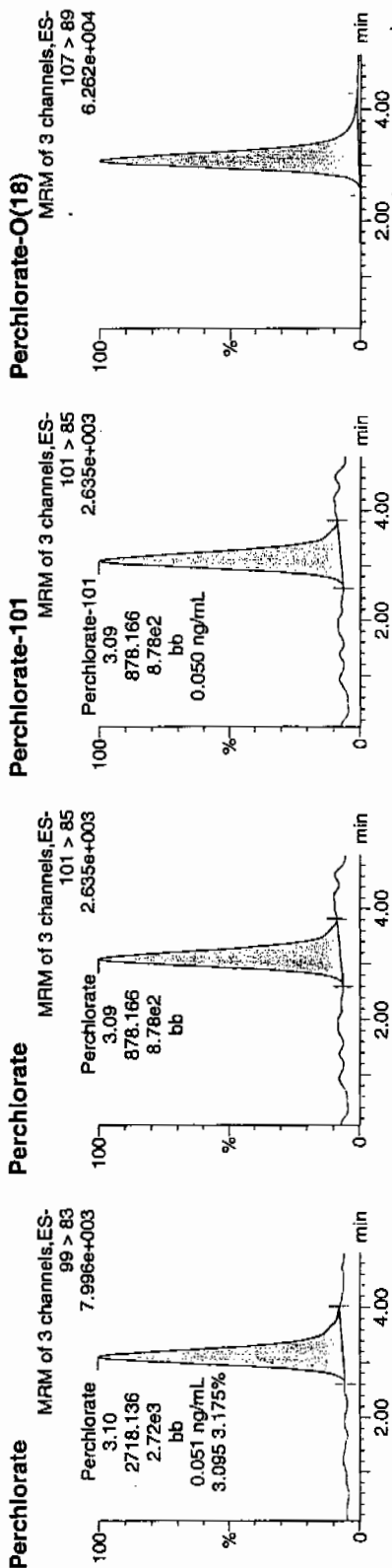
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210024a  
Date: 10-Feb-2010  
Time: 19:15:35  
ID: WCL100128-07CRI  
Vial: 1:2,B

*Per*  
*02-11-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	3.10	2718.136	2718.136	bb			0.0506	101.19	1.19	198.559	3.10
WCL100128-07CRI	Perchlorate-101	101 > 85	3.09	878.166	878.166	bb			0.0504	100.82	0.82	159.042	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	3.07	22697.199	22697.199	bb			0.4947	98.94	-1.06	1319.3...	

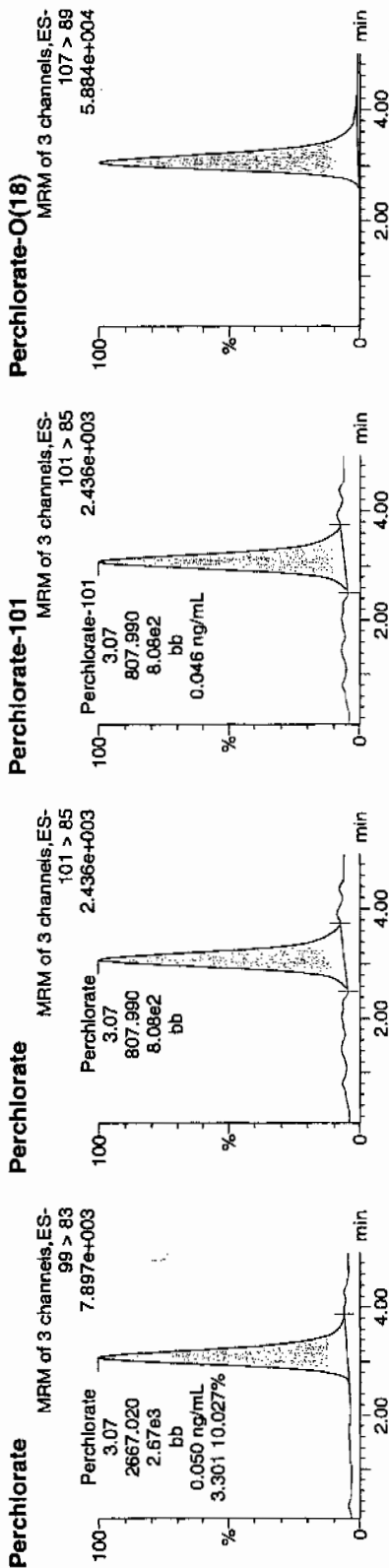
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210037a  
Date: 10-Feb-2010  
Time: 21:00:11  
ID: WCL100128-07CRI  
Vial: 1:2,B

*Pass*  
*and*  
*02-10-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	3.07	2667.020	2667.020	bb			0.0496	99.29	-0.71	154.068	3.30
WCL100128-07CRI	Perchlorate-101	101 > 85	3.07	807.990	807.990	bb			0.0464	92.76	-7.24	86.733	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	3.06	21287.656	21287.656	bb			0.4640	92.80	-7.20	4311.4...	

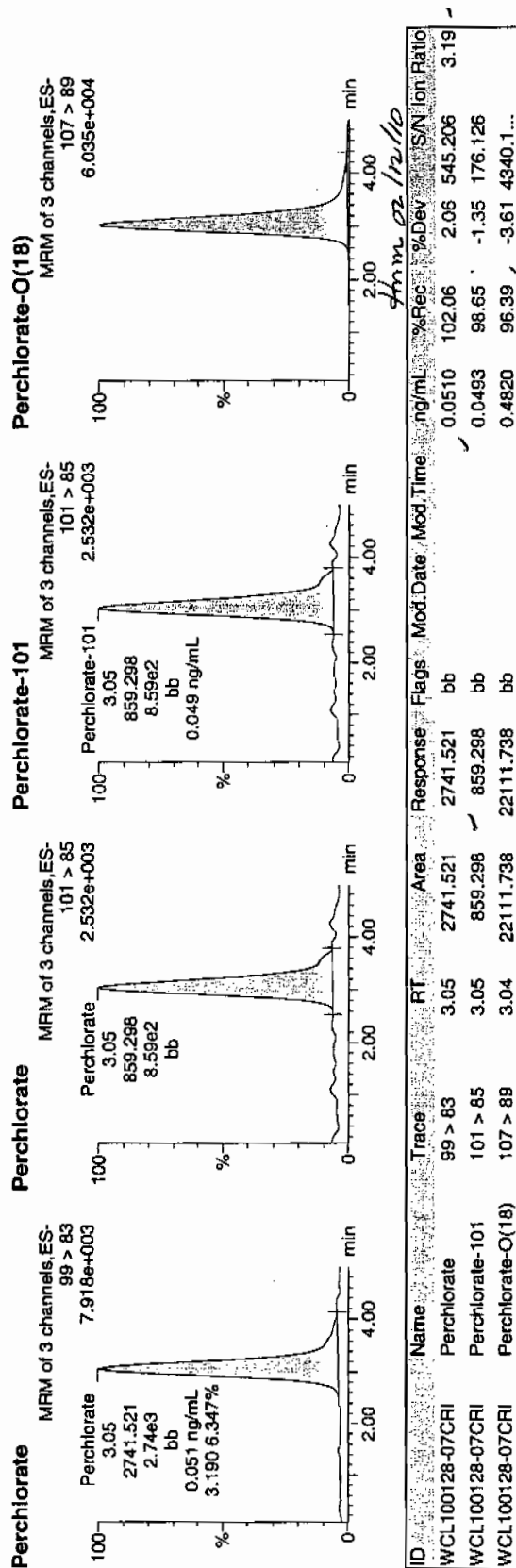
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210050a  
Date: 10-Feb-2010  
Time: 22:45:03  
ID: WCL100128-07CRI  
Vial: 1:2,B

Perp  
and  
02-12-10



**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210063a

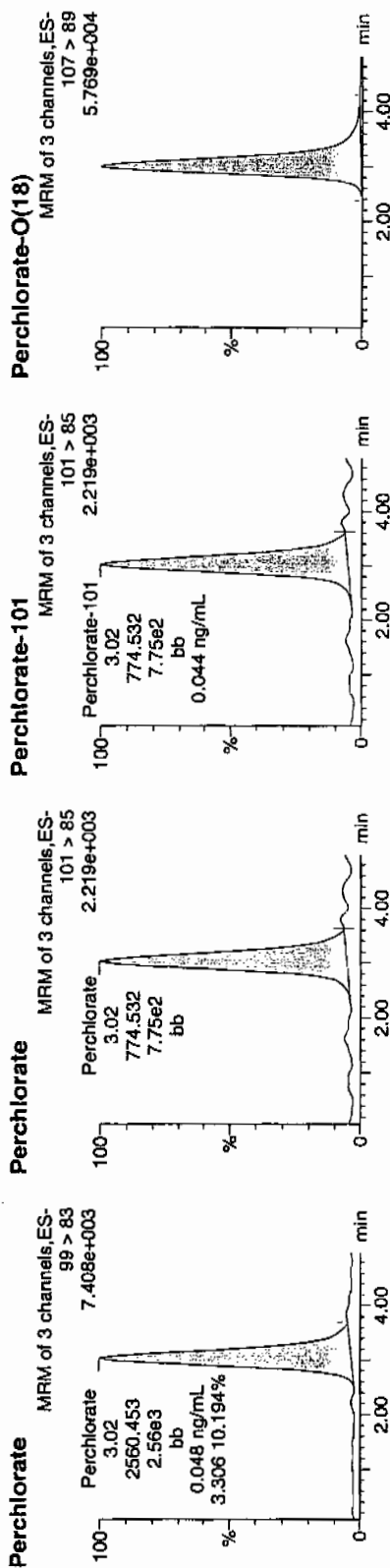
Date: 11-Feb-2010

Time: 00:29:58

ID: WCL100128-07CRI

Vial: 1:2,B

*Per  
CWI  
02-12-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	3.02	2560.453	2560.453	bb			0.0477	95.32	-4.68	375.153	3.31
WCL100128-07CRI	Perchlorate-101	101 > 85	3.02	774.532	774.532	bb			0.0445	88.92	-11.08	83.221	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	3.01	20765.645	20765.645	bb			0.4526	90.52	-9.48	2805.1...	

# QUALITY CONTROL



Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 247147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

MB

Date Received: 06-FEB-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 1202028867

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	10-FEB-10 21:08	per0210038a
	Perchlorate Isotope Ratio						1	10-FEB-10 21:08	per0210038a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	10-FEB-10 21:08	per0210038a
	Perchlorate-O(18)			4.76	ug/kg		1	10-FEB-10 21:08	per0210038a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids  
Aliquot

**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

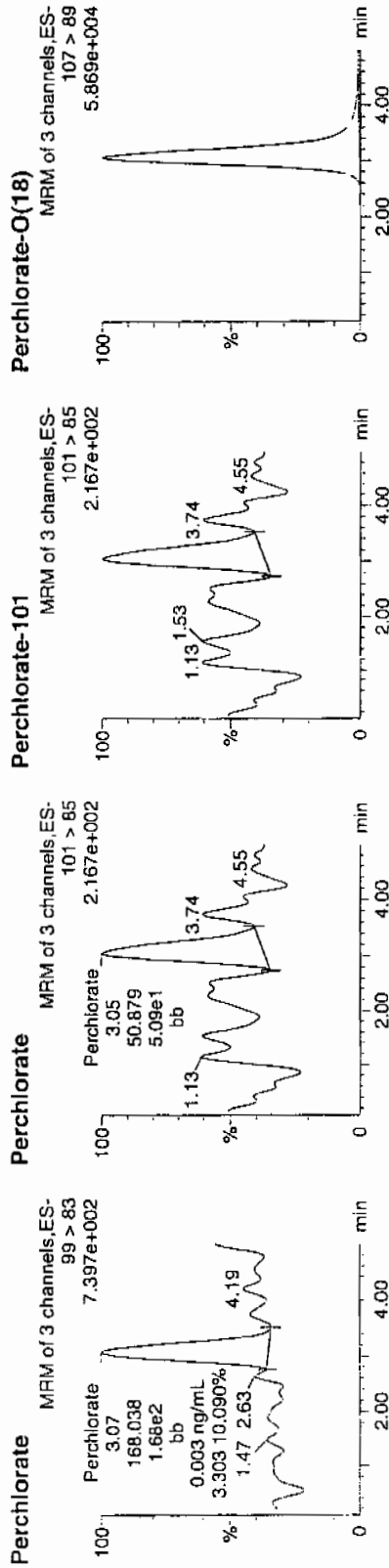
Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210038a  
Date: 10-Feb-2010  
Time: 21:08:15  
ID: 1202028867  
Vial: 2:1,A

02-12-10

1202028867 | 947148 | 5010 | 13 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028867	Perchlorate	99 > 83	3.07	168.038	168.038	bb			0.0031			10.513	3.30
1202028867	Perchlorate-101	101 > 85	3.05	50.879	50.879	bb			0.0029			12.402	
1202028867	Perchlorate-O(18)	107 > 89	3.07	21819.559	21819.559	bb			0.4756	95.12	-4.88	1062.2...	

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Client Sample No.

LCS

Date Received: 06-FEB-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 1202028868

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 100

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.05	ug/kg		1	10-FEB-10 21:16	per0210039a
	Perchlorate Isotope Ratio			3.29			1	10-FEB-10 21:16	per0210039a
14797-73-0	Perchlorate-101	.5	2	1.93	ug/kg	J	1	10-FEB-10 21:16	per0210039a
	Perchlorate-O(18)			4.65	ug/kg		1	10-FEB-10 21:16	per0210039a

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

\*Concentration =

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

Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

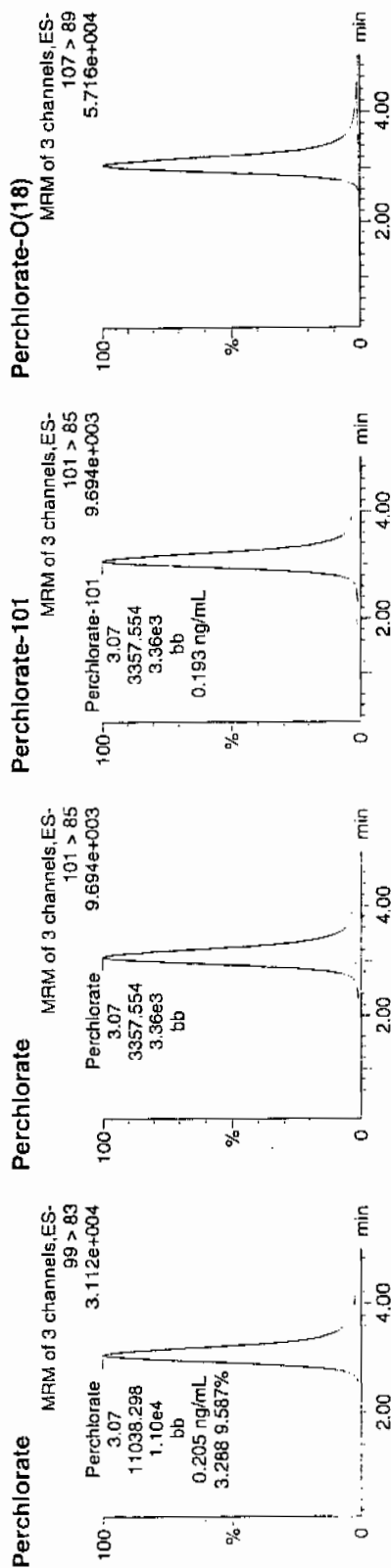
Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210039a  
Date: 10-Feb-2010  
Time: 21:16:28  
ID: 1202028868  
Vial: 2:1,B

03-12-10

1202028868 | 94748 | 5070 | LC5 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028868	Perchlorate	99 > 83	3.07	11038.298	11038.298	bb			0.2055	102.73	2.73	408.107	3.29
1202028868	Perchlorate-101	101 > 85	3.07	3357.554	3357.554	bb			0.1927	96.36	-3.64	542.606	
1202028868	Perchlorate-O(18)	107 > 89	3.06	21315.061	21315.061	bb			0.4646	92.92	-7.08	720.781	

$$\frac{11038.298}{53724.1} = 0.2055$$

4/11/10 12/10

## Perchlorate Analysis Data Sheet

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 247147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7883MS

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 1202028869

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 69

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.725	2.9	2.97	ug/kg		1	10-FEB-10 21:48	per0210043a
	Perchlorate Isotope Ratio			3.17			1	10-FEB-10 21:48	per0210043a
14797-73-0	Perchlorate-101	.725	2.9	2.89	ug/kg	J	1	10-FEB-10 21:48	per0210043a
	Perchlorate-O(18)			6.68	ug/kg		1	10-FEB-10 21:48	per0210043a

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

\*Concentration =

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

Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

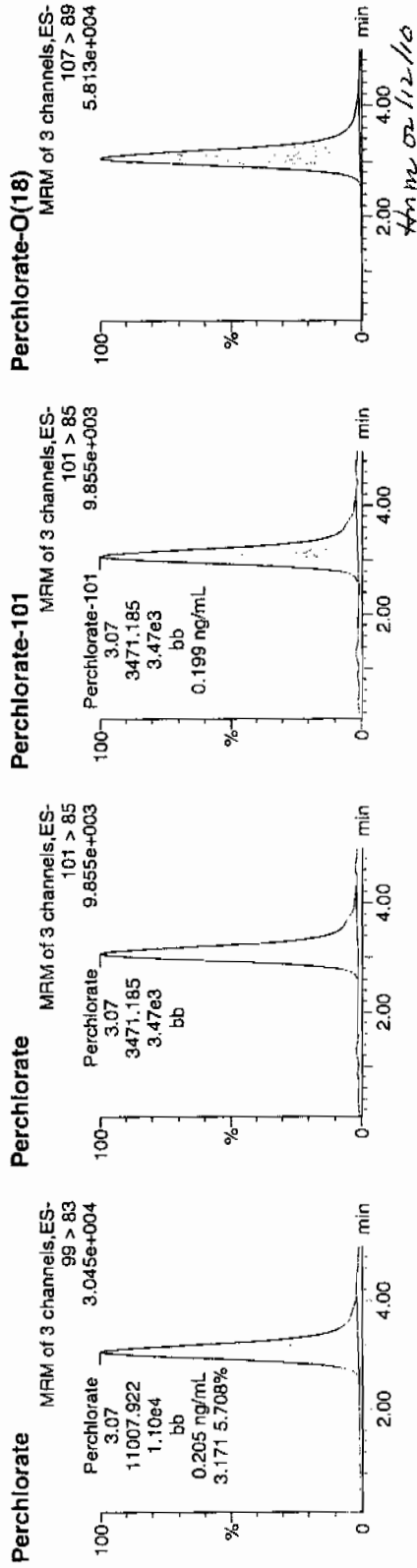
Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210043a  
Date: 10-Feb-2010  
Time: 21:48:34  
ID: 1202028869  
Vial: 2:1,F

02-12-10

1522 1947143 | 5073 | MS | 1 |



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028869	Perchlorate	99 > 83	3.07	11007.922	11007.922	bb			0.2049	102.45	2.45	692.509	3.17
1202028869	Perchlorate-101	101 > 85	3.07	3471.185	3471.185	bb			0.1993	99.63	-0.37	485.844	
1202028869	Perchlorate-O(18)	107 > 89	3.06	21125.531	21125.531	bb			0.4605	92.09	-7.91	1850.3...	

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 247147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7883MSD

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 1202028870

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 69

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.725	2.9	2.99	ug/kg		1	10-FEB-10 21:56	per0210044a
	Perchlorate Isotope Ratio			3.42			1	10-FEB-10 21:56	per0210044a
14797-73-0	Perchlorate-101	.725	2.9	2.69	ug/kg	J	1	10-FEB-10 21:56	per0210044a
	Perchlorate-O(18)			6.92	ug/kg		1	10-FEB-10 21:56	per0210044a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X <sup>1</sup>  
Aliquot %Solids

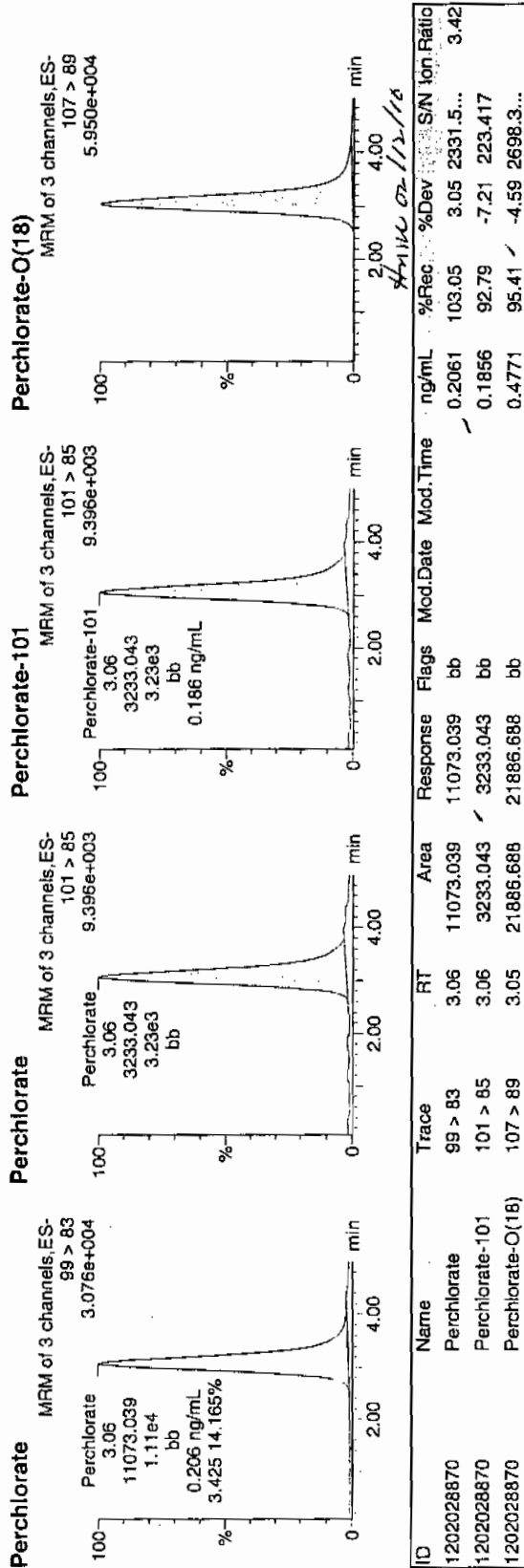
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time  
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210044a  
Date: 10-Feb-2010  
Time: 21:56:35  
ID: 1202028870  
Vial: 2:2,A

LANL | 947148 | 5000 | MSO | 1 |  
02-12-10





# MISCELLANEOUS DATA

# Prep Logbook

## Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 947147  
 Analyst: Jareth Shirley  
 Method: SYW846 6850 Modified  
 Lab SOP: GL-OA-E-067 REV# 6  
 Instrument: MicroMass Quattro Ultima

Verified by:

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)	Spike Amt	Units	Comments
1202028867 MB	06-FEB-2010 13:24:00	2	20	10			
1202028868 LCS	06-FEB-2010 13:24:00	2	20	10			
245661001	06-FEB-2010 13:24:00	2	20	10			
245688001	06-FEB-2010 13:24:00	2	20	10			
1202028869 MS (245688001)	06-FEB-2010 13:24:00	2	20	10			
1202028870 MSID (245688001)	06-FEB-2010 13:24:00	2	20	10			
245688002	06-FEB-2010 13:24:00	2	20	10			
245688003	06-FEB-2010 13:24:00	2	20	10			
245688004	06-FEB-2010 13:24:00	2	20	10			
245688005	06-FEB-2010 13:24:00	2	20	10			
245688006	06-FEB-2010 13:24:00	2	20	10			
245688007	06-FEB-2010 13:24:00	2	20	10			
245688008	06-FEB-2010 13:24:00	2	20	10			
245688009	06-FEB-2010 13:24:00	2	20	10			
245688010	06-FEB-2010 13:24:00	2	20	10			
245688011	06-FEB-2010 13:24:00	2	20	10			
245688012	06-FEB-2010 13:24:00	2	20	10			
245688013	06-FEB-2010 13:24:00	2	20	10			
245688014	06-FEB-2010 13:24:00	2	20	10			
1202028871 LCS	06-FEB-2010 13:24:00	2	20	10			
Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments	
LCS	1202028871	10 ug/L ICV/CCV Second Source	UCL100136-02.1	.4	mL	Desalting cartridges used: 090812-1-Bu & 091230-1-H	
LCS	1202028868	10 ug/L ICV/CCV Second Source	UCL100136-02.1	.4	mL		
MS	1202028869	10 ug/L ICV/CCV Second Source	UCL100136-02.1	.4	mL		
MSID	1202028870	10 ug/L ICV/CCV Second Source	UCL100136-02.1	.4	mL		

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/10/10

Extr. Injection Volume: 20uL

Sequence Number: per021010a

Initial Calibration Date: 02/10/10

Method: EPA 6850-Modified

Int. Std.: UCL100122-01

Mobile Phase Lot#: 1254342, 1261217

Standard-Samp Reagent Lot#: 1233976

Reviewed BY: *Amr*  
Date: 02/12/10  
SOP: GL-OA-E-067 Rev.6  
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0210001a	IPB001	CWW	2/10/2010 16:10			1		USE	B
per0210002a	IPB001	CWW	2/10/2010 16:18			1		USE	B
per0210003a	WCLICAL-01	CWW	2/10/2010 16:26			1		USE	I
per0210004a	WCLICAL-02	CWW	2/10/2010 16:34			1		USE	I
per0210005a	WCLICAL-03	CWW	2/10/2010 16:42			1		USE	I
per0210006a	WCLICAL-04	CWW	2/10/2010 16:50			1		USE	I
per0210007a	WCLICAL-05	CWW	2/10/2010 16:58			1		USE	I
per0210008a	IPB002	CWW	2/10/2010 17:06			1		USE	B
per0210009a	WCLICV	CWW	2/10/2010 17:14			1		USE	C
per0210010a	IPB003	CWW	2/10/2010 17:23			1		USE	B
per0210011a	WCLCRI	CWW	2/10/2010 17:31			1		USE	C
per0210012a	1202028749	CWW	2/10/2010 17:39	947112	10-1392	1	LANL	USE	S
per0210013a	1202028750	CWW	2/10/2010 17:47	947112	10-1392	1	LANL	USE	S
per0210014a	1202028753	CWW	2/10/2010 17:55	947112	10-1392	1	LANL	USE	S
per0210015a	245394001	CWW	2/10/2010 18:03	947112	10-1392	1	LANL	USE	S
per0210016a	1202028751	CWW	2/10/2010 18:11	947112	10-1392	1	LANL	USE	S
per0210017a	1202028752	CWW	2/10/2010 18:19	947112	10-1392	1	LANL	USE	S
per0210018a	245394002	CWW	2/10/2010 18:27	947112	10-1392	1	LANL	USE	S
per0210019a	245394003	CWW	2/10/2010 18:35	947112	10-1392	1	LANL	USE	S
per0210020a	245394004	CWW	2/10/2010 18:43	947112	10-1392	1	LANL	USE	S
per0210021a	245394005	CWW	2/10/2010 18:51	947112	10-1392	1	LANL	USE	S
per0210022a	WCLCCV	CWW	2/10/2010 18:59			1		USE	C
per0210023a	IPB004	CWW	2/10/2010 19:07			1		USE	B
per0210024a	WCLCRI	CWW	2/10/2010 19:15			1		USE	C
per0210025a	245394006	CWW	2/10/2010 19:23	947112	10-1392	1	LANL	USE	S
per0210026a	245394007	CWW	2/10/2010 19:31	947112	10-1392	1	LANL	USE	S
per0210027a	245394008	CWW	2/10/2010 19:39	947112	10-1392	1	LANL	USE	S
per0210028a	245394009	CWW	2/10/2010 19:47	947112	10-1392	1	LANL	USE	S
per0210029a	245394010	CWW	2/10/2010 19:55	947112	10-1392	1	LANL	USE	S

per0210030a	245394011	CWW	2/10/2010 20:03	947112	10-1392	1	LANL	USE	S
per0210031a	245394012	CWW	2/10/2010 20:11	947112	10-1392	1	LANL	USE	S
per0210032a	245394013	CWW	2/10/2010 20:19	947112	10-1392	1	LANL	USE	S
per0210033a	245394014	CWW	2/10/2010 20:27	947112	10-1392	1	LANL	USE	S
per0210034a	245394015	CWW	2/10/2010 20:36	947112	10-1392	1	LANL	USE	S
per0210035a	WCLCCV	CWW	2/10/2010 20:44			1		USE	C
per0210036a	IPB005	CWW	2/10/2010 20:52			1		USE	B
per0210037a	WCLCRI	CWW	2/10/2010 21:00			1		USE	C
per0210038a	1202028867	CWW	2/10/2010 21:08	947148	VARIOUS	1	LANL	USE	S
per0210039a	1202028868	CWW	2/10/2010 21:16	947148	VARIOUS	1	LANL	USE	S
per0210040a	1202028871	CWW	2/10/2010 21:24	947148	VARIOUS	1	LANL	USE	S
per0210041a	245661001	CWW	2/10/2010 21:32	947148	10-1435	1	LANL	USE	S
per0210042a	245688001	CWW	2/10/2010 21:40	947148	10-1433	1	LANL	USE	S
per0210043a	1202028869	CWW	2/10/2010 21:48	947148	10-1433	1	LANL	USE	S
per0210044a	1202028870	CWW	2/10/2010 21:56	947148	10-1433	1	LANL	USE	S
per0210045a	245688002	CWW	2/10/2010 22:04	947148	10-1433	1	LANL	USE	S
per0210046a	245688003	CWW	2/10/2010 22:12	947148	10-1433	1	LANL	USE	S
per0210047a	245688004	CWW	2/10/2010 22:20	947148	10-1433	1	LANL	USE	S
per0210048a	WCLCCV	CWW	2/10/2010 22:28			1		USE	C
per0210049a	IPB006	CWW	2/10/2010 22:37			1		USE	B
per0210050a	WCLCRI	CWW	2/10/2010 22:45			1		USE	C
per0210051a	245688005	CWW	2/10/2010 22:53	947148	10-1433	1	LANL	USE	S
per0210052a	245688006	CWW	2/10/2010 23:01	947148	10-1433	1	LANL	USE	S
per0210053a	245688007	CWW	2/10/2010 23:09	947148	10-1433	1	LANL	USE	S
per0210054a	245688008	CWW	2/10/2010 23:17	947148	10-1433	1	LANL	USE	S
per0210055a	245688009	CWW	2/10/2010 23:25	947148	10-1433	1	LANL	USE	S
per0210056a	245688010	CWW	2/10/2010 23:33	947148	10-1433	1	LANL	USE	S
per0210057a	245688011	CWW	2/10/2010 23:41	947148	10-1433	1	LANL	USE	S
per0210058a	245688012	CWW	2/10/2010 23:49	947148	10-1433	1	LANL	USE	S
per0210059a	245688013	CWW	2/10/2010 23:57	947148	10-1433	1	LANL	USE	S
per0210060a	245688014	CWW	2/11/2010 0:05	947148	10-1433	1	LANL	USE	S
per0210061a	WCLCCV	CWW	2/11/2010 0:13			1		USE	C
per0210062a	IPB007	CWW	2/11/2010 0:21			1		USE	B
per0210063a	WCLCRI	CWW	2/11/2010 0:29			1		USE	C
per0210064a	1202028862	CWW	2/11/2010 0:37	947145	10-1417	1	LANL	USE	S
per0210065a	1202028863	CWW	2/11/2010 0:46	947145	10-1417	1	LANL	USE	S
per0210066a	1202028866	CWW	2/11/2010 0:54	947145	10-1417	1	LANL	USE	S

per0210067a	245612001	CWW	2/11/2010 1:02	947145	10-1417	1	LANL	USE	S
per0210068a	1202028864	CWW	2/11/2010 1:10	947145	10-1417	1	LANL	USE	S
per0210069a	1202028865	CWW	2/11/2010 1:18	947145	10-1417	1	LANL	USE	S
per0210070a	245612002	CWW	2/11/2010 1:26	947145	10-1417	1	LANL	USE	S
per0210071a	WCLCCV	CWW	2/11/2010 1:34			1		USE	C
per0210072a	IPB008	CWW	2/11/2010 1:42			1		USE	B
per0210073a	WCLCRI	CWW	2/11/2010 1:50			1		USE	C
per0210074a	245612003	CWW	2/11/2010 1:58	947145	10-1417	1	LANL	USE	S
per0210075a	245612004	CWW	2/11/2010 2:07	947145	10-1417	1	LANL	USE	S
per0210076a	245612005	CWW	2/11/2010 2:15	947145	10-1417	1	LANL	USE	S
per0210077a	245612006	CWW	2/11/2010 2:23	947145	10-1417	1	LANL	USE	S
per0210078a	245612007	CWW	2/11/2010 2:31	947145	10-1417	1	LANL	USE	S
per0210079a	245612008	CWW	2/11/2010 2:39	947145	10-1417	1	LANL	USE	S
per0210080a	245612009	CWW	2/11/2010 2:47	947145	10-1417	1	LANL	USE	S
per0210081a	WCLCCV	CWW	2/11/2010 2:55			1		USE	C
per0210082a	IPB009	CWW	2/11/2010 3:03			1		USE	B
per0210083a	WCLCRI	CWW	2/11/2010 3:11			1		USE	C
per0210084a	245612010	CWW	2/11/2010 3:20	947145	10-1417	1	LANL	USE	S
per0210085a	245612011	CWW	2/11/2010 3:28	947145	10-1417	1	LANL	USE	S
per0210086a	245612012	CWW	2/11/2010 3:36	947145	10-1417	1	LANL	USE	S
per0210087a	245612013	CWW	2/11/2010 3:45	947145	10-1417	1	LANL	USE	S
per0210088a	245612014	CWW	2/11/2010 3:53	947145	10-1417	1	LANL	USE	S
per0210089a	245612015	CWW	2/11/2010 4:01	947145	10-1417	1	LANL	USE	S
per0210090a	245612016	CWW	2/11/2010 4:09	947145	10-1417	1	LANL	USE	S
per0210091a	WCLCCV	CWW	2/11/2010 4:17			1		USE	C
per0210092a	IPB010	CWW	2/11/2010 4:26			1		USE	B
per0210093a	WCLCRI	CWW	2/11/2010 4:34			1		USE	C

### Isotope Ratio Criteria

#### Isotope Ratio $^{35}\text{Cl}/^{37}\text{Cl}$

2.31-3.85

### Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

# LC/MS/MS PERCHLORATE ANALYSIS

**Perchlorate by LC/MSMS  
Los Alamos National Laboratory (LANL)  
SDG 10-1433-1**

**Method/Analysis Information**

**Procedure:** Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

**Analytical Method:** SW846 6850 Modified

**Prep Method:** SW846 6850 Modified

**Analytical Batch Number:** 947199

**Prep Batch Number:** 947198

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
245690001	RE15-10-8080
245690002	RE15-10-8079
1202028966	Interference Check Sample (ICS)
1202028960	Method Blank (MB)
1202028961	Laboratory Control Sample (LCS)
1202028962	245614001(RE46-10-11838) Matrix Spike (MS)
1202028963	245614001(RE46-10-11838) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

**Calibration Information**

**Initial Calibration**

All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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**CCV Requirements**

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

**CCB Requirements**

All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

**CCV Requirements**

All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

**Low Level Standard (CRI) Requirements**

All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

**Quality Control (QC) Information****Method Blank (MB) Statement**

The MB(s) analyzed with this SDG met the acceptance criteria.

**Interference Check Sample (ICS)**

The interference check sample (ICS) met all recovery acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**QC Sample Designation**

Client sample 245614001 (RE46-10-11838) from SDG 10-1417-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

**Matrix Spike (MS) Recovery Statement**

The MS recoveries were within the established acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recoveries were within the established acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**

The RPD(s) between the MS and MSD met the acceptance limits.

**Retention Time Standard Area Acceptance**

The retention time standard areas were within the required acceptance criteria for all samples and QC.

**Retention Time**

During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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### **Technical Information**

#### **Holding Time Specifications**

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

#### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

#### **Sample Dilutions**

The samples in this SDG did not require dilutions.

#### **Sample Re-extraction/Re-analysis**

Re-extractions or re-analyses were not required in this SDG except for dilutions.

### **Miscellaneous Information**

#### **Data Exception (DER) Documentation**

Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

#### **Manual Integrations**

Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

#### **Method Comments**

The samples in this SDG were not originally analyzed using EPA Method 314.0.

#### **Additional Comments**

The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

#### **Perchlorate Isotope Ratio**

The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

#### System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

#### Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

#### Certification Statement

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

#### Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Hesbath Mauer Date: 02/06/10

# SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

RE15-10-8080

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 245690001

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate Isotope Ratio						1	31-JAN-10 20:57	per0131069a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate-O(18)			0.478	ug/L		1	31-JAN-10 20:57	per0131069a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids  
Aliquot

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 247198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

RE15-10-8079

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 245690002

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

% Solids:

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate Isotope Ratio						1	31-JAN-10 21:04	per0131070a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate-O(18)			0.504	ug/L		1	31-JAN-10 21:04	per0131070a

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

\*Concentration =

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

# QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL GEL Job No. (SDG): 10-1433-1

Extract Batch Code: 947198 Date Filtered: 30-JAN-10

Matrix: WATER Sample ID: 1202028961

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.199	ug/L	99.4		85 - 115
Perchlorate Isotope Ratio		3.1				-
Perchlorate-101	0.200	.191	ug/L	95.3		85 - 115
Perchlorate-O(18)		.455	ug/L			-

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



Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL GEL Job No. (SDG): 10-1433-1

Extract Batch Code: 947198 Date Filtered: 30-JAN-10

Matrix: SURFACE WATER Sample ID: 1202028966

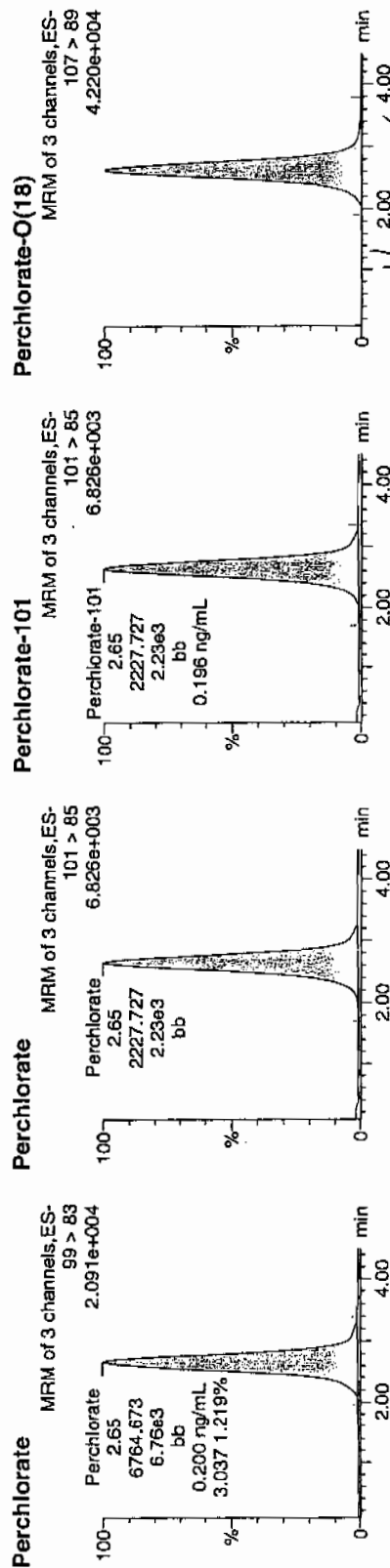
Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.2	ug/L	100		70 - 130
Perchlorate Isotope Ratio		3.04				
Perchlorate-101	0.200	.196	ug/L	98		70 - 130
Perchlorate-O(18)		.475	ug/L			

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

Name: per0131048a  
Date: 31-Jan-2010  
Time: 18:17:55  
ID: 1202028966  
Vial: 2:1,C

02-01-10

LANU | 947199 | UIC | ICS | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	Dev	S/N	Ratio
1202028966	Perchlorate	99 > 83	2.65	6764.673	6764.673	bb			0.2000	100.01	0.01	722.076	3.04
1202028966	Perchlorate-101	101 > 85	2.65	2227.727	2227.727	bb			0.1960	97.99	-2.01	600.092	
1202028966	Perchlorate-O(18)	107 > 89	2.64	13812.098	13812.098	bb			0.4749	94.98	-5.02	4165.3...	

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1433-1

Extract Batch Code: 947198

Date Extracted: 30-JAN-10

GEL MS/PS ID: 1202028962

Client ID: RE46-10-11838

GEL MSD/PSD ID: 1202028963

QC Type: MS

Compound <sup>^</sup>	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00266	ug/L	0.204	101	.196	96.5	4.16	30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.07		2.95		0		-
Perchlorate-101	0.200	0.00	ug/L	0.198	98.9	.198	98.8	.103	30	75 - 125
Perchlorate-O(18)	0	0.438	ug/L	0.475		.484		1.83		-

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

Comments:

Form 4

Perchlorate Initial Calibration Blank

GEL Job No.(SDG): 10-1433-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	31-JAN-10	per0131001a	IPB001
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131001a	IPB001
Perchlorate	0.00	0	NA	31-JAN-10	per0131002a	IPB001
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131002a	IPB001

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

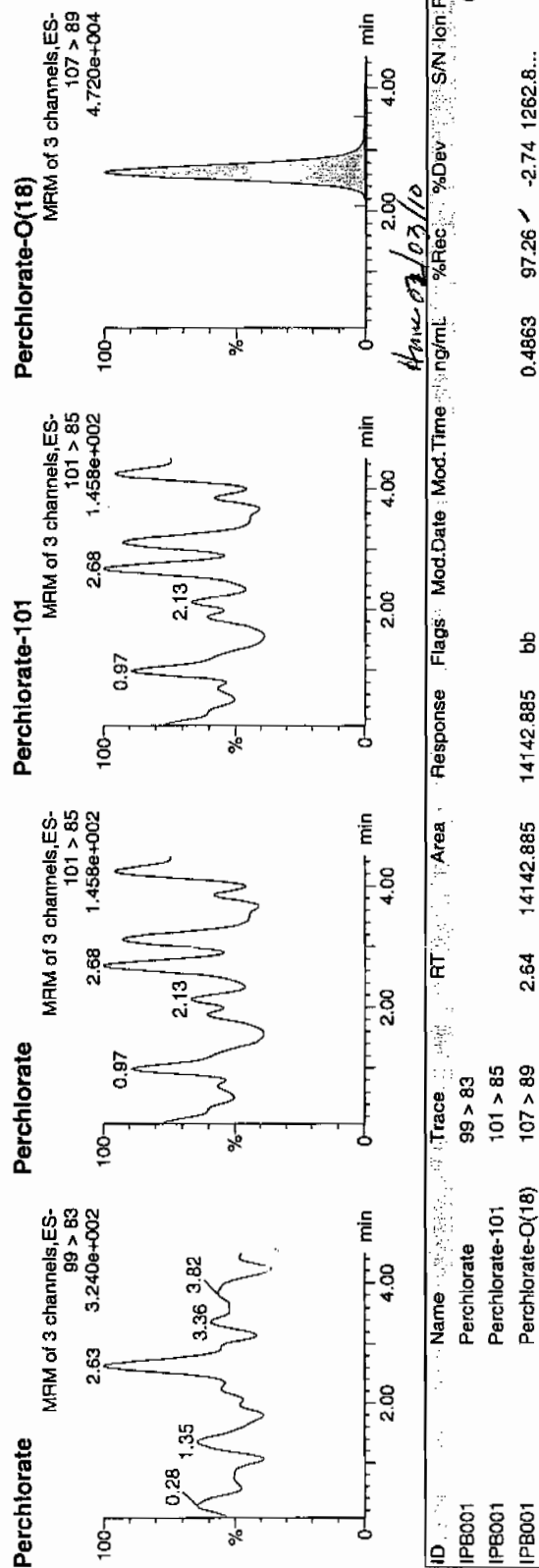
Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
 Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per013110a.mdb 01 Feb 2010 10:44:50  
 Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per013110a.cdb 01 Feb 2010 10:45:05

Name: per0131001a  
 Date: 31-Jan-2010  
 Time: 12:23:18  
 ID: IPB001  
 Vial: 1:1,A

02-01-10



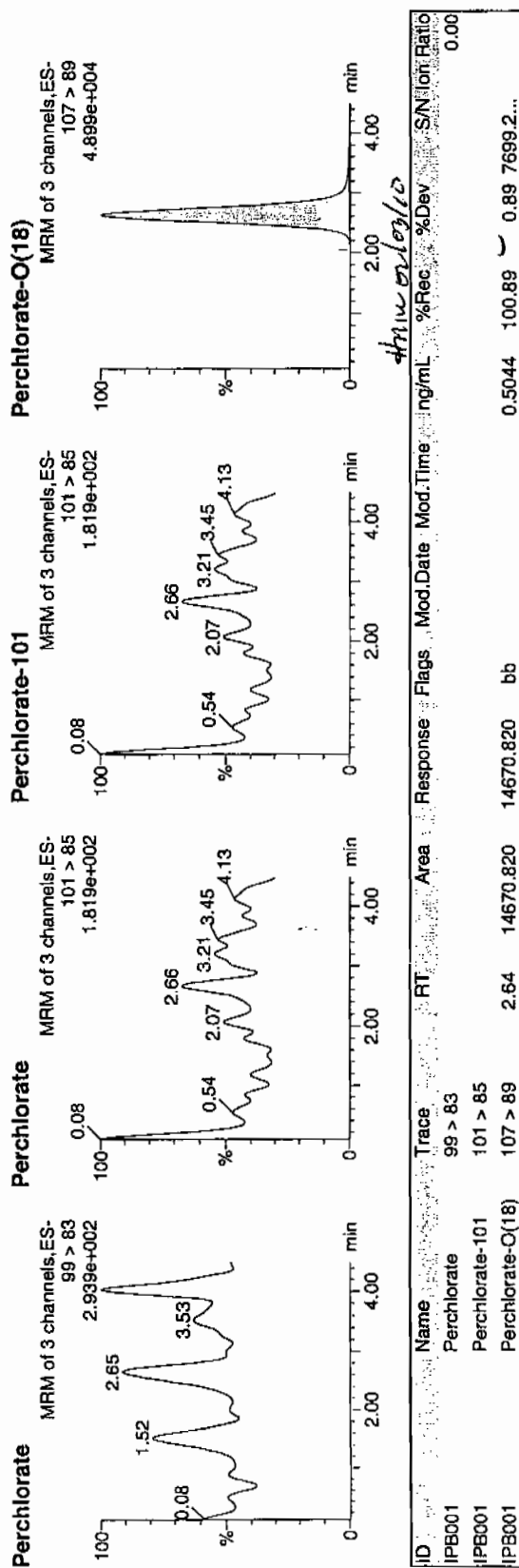
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131002a  
Date: 31-Jan-2010  
Time: 12:30:50  
ID: IPB001  
Vial: 1:1A

02-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.64	14670.820	14670.820	bb			0.5044	100.89	0.89	7699.2...	

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1433-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	31-JAN-10	per0131008a	IPB002
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131008a	IPB002
Perchlorate	0.00	0	NA	31-JAN-10	per0131010a	IPB003
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131010a	IPB003
Perchlorate	0.00	0	NA	31-JAN-10	per0131022a	IPB004
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131022a	IPB004
Perchlorate	0.00	0	NA	31-JAN-10	per0131033a	IPB005
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131033a	IPB005
Perchlorate	0.00	0	NA	31-JAN-10	per0131044a	IPB006
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131044a	IPB006
Perchlorate	0.00	0	NA	31-JAN-10	per0131055a	IPB007
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131055a	IPB007
Perchlorate	0.00	0	NA	31-JAN-10	per0131066a	IPB008

Form 4

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1433-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units:  $\mu\text{g/L}$

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131066a	IPB008
Perchlorate	0.00	0	NA	31-JAN-10	per0131075a	IPB009
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131075a	IPB009
Perchlorate	0.00	0	NA	31-JAN-10	per0131078a	IPB010
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131078a	IPB010



# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
 Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131008a

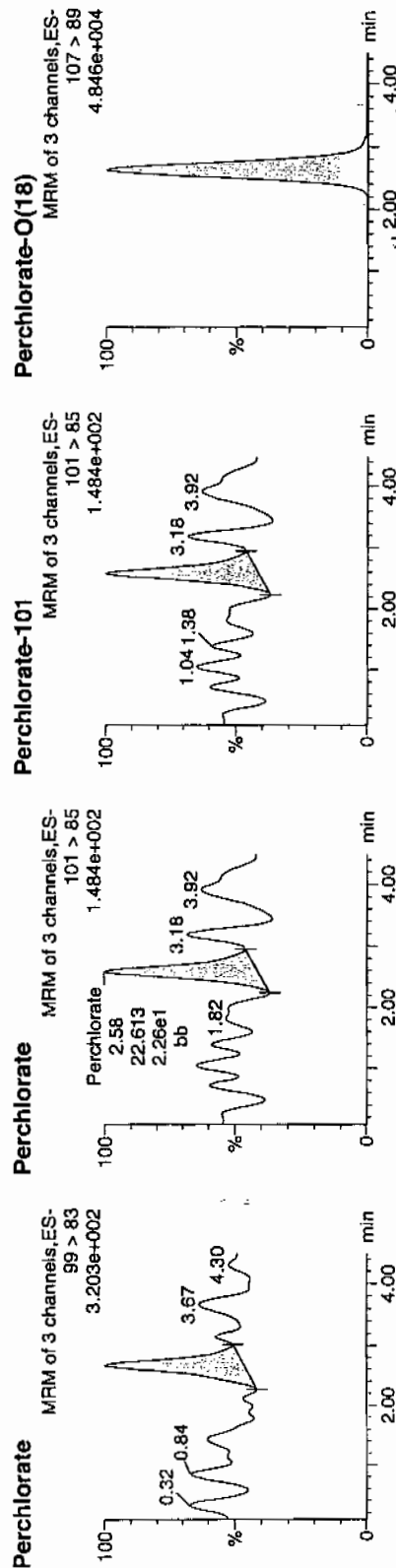
Date: 31-Jan-2010

Time: 13:15:57

ID: IPB002

Vial: 1:1,A

02-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	2.66	48.090	48.090	bb			0.0014	8.037	2.13	2.13	
IPB002	Perchlorate-101	101 > 85	2.58	22.613	22.613	bb			0.0020	5.380			
IPB002	Perchlorate-O(18)	107 > 89	2.63	14490.285	14490.285	bb			0.4982	99.65	-0.35	1594.1...	

02-01-10

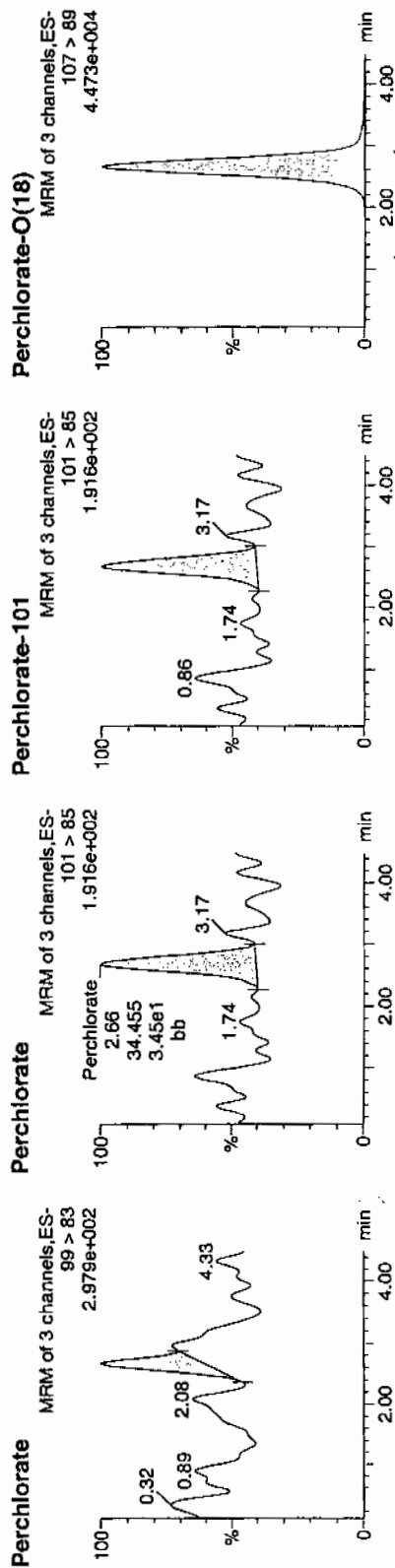
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131010a  
Date: 31-Jan-2010  
Time: 13:31:01  
ID: IPB003  
Vial: 1:1,A

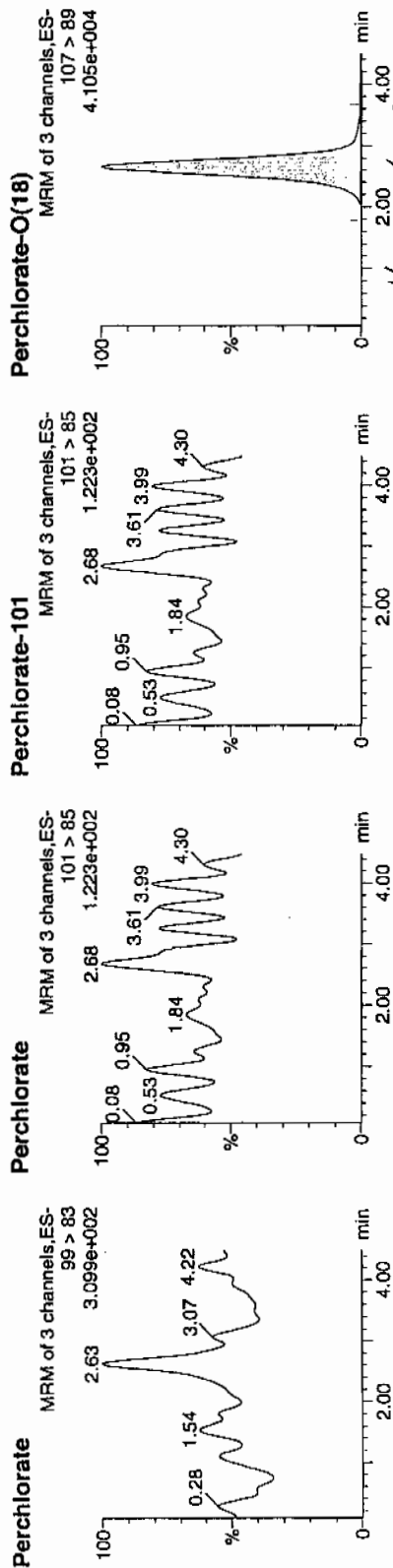
02.01.10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	2.66	27.957	27.957	bb			0.0008	6.487	0.81		
IPB003	Perchlorate-101	101 > 85	2.66	34.455	34.455	bb			0.0030	10.133			
IPB003	Perchlorate-O(18)	107 > 89	2.65	14485.047	14485.047	bb			0.4981	99.61	-0.39	3915.2...	

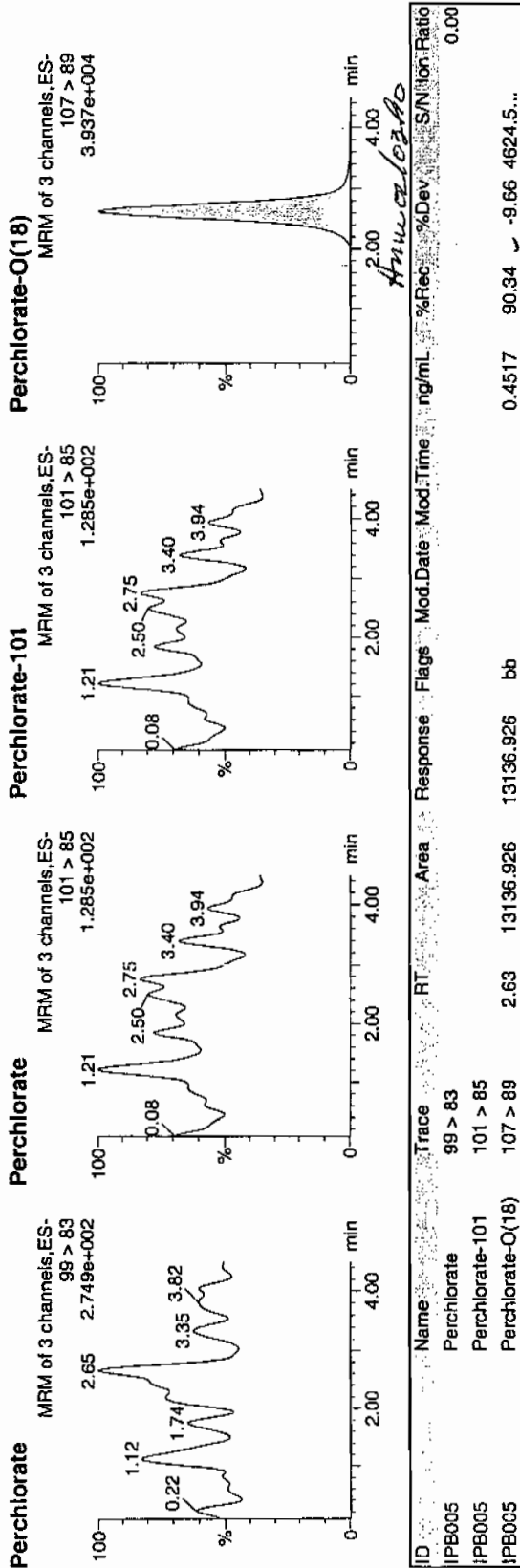
0.004  
2.0.0500

02-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.65	13877.979	13877.979	bb			0.4772	95.44	-4.56	576.575	

02-01-10



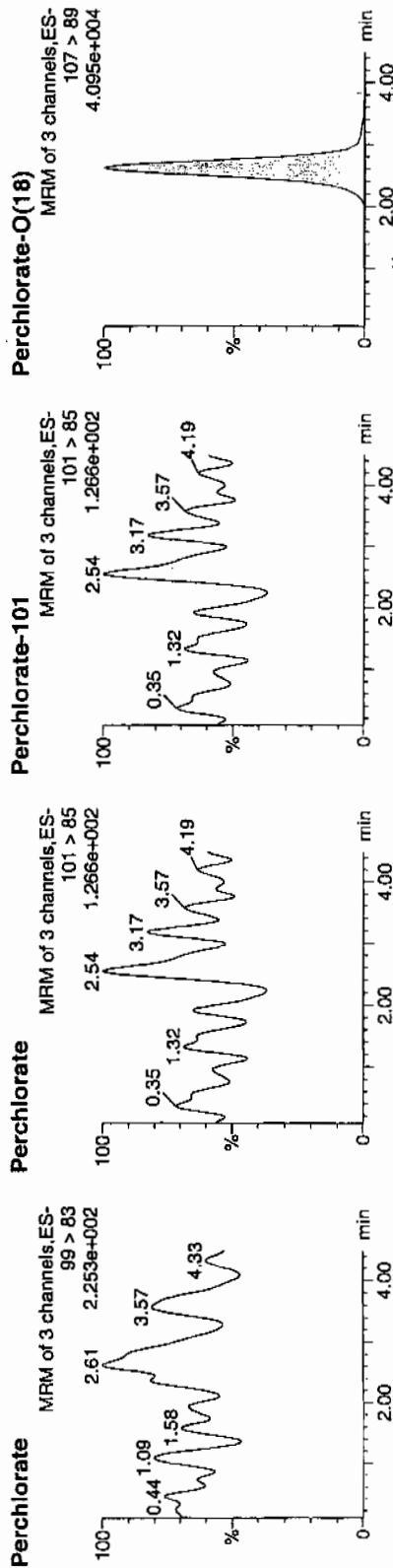
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131044a  
Date: 31-Jan-2010  
Time: 17:47:37  
ID: IPB006  
Vial: 1:1,A

02-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	2.61	13693.361	13693.361	bb			0.4708	94.17	-5.83	3955.2...	

# Quantify Sample Report MassLynx 4.0 SP4

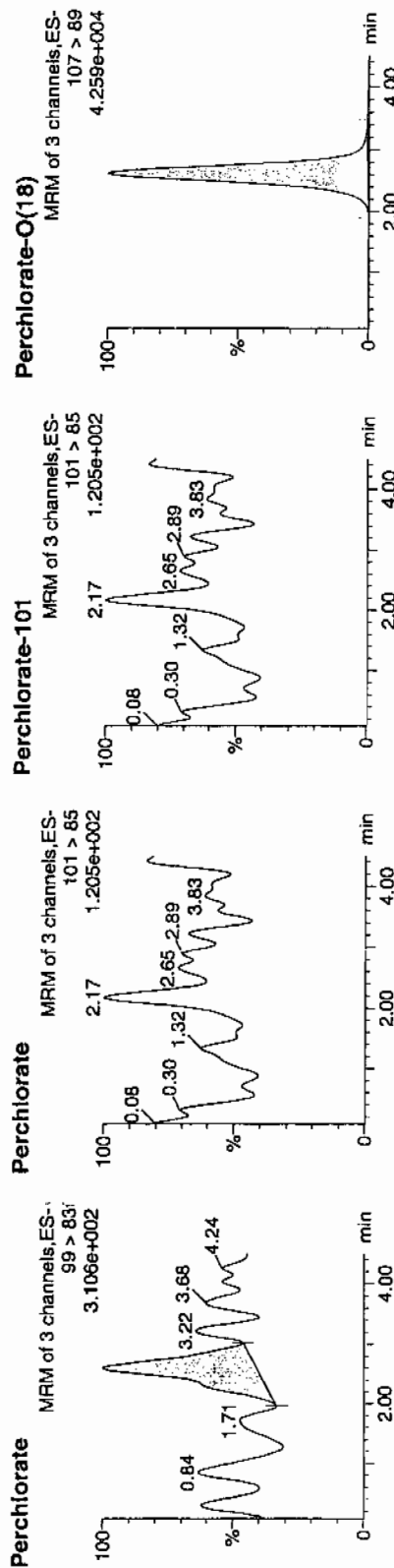
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131055a  
Date: 31-Jan-2010  
Time: 19:10:53  
ID: IPB007  
Vial: 1:1,A

02-31-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	2.59	81.753	81.753	bb			0.0024			4.141	0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	2.61	13936.795	13936.795	bb			0.4792	95.84	-4.16	4415.2...	

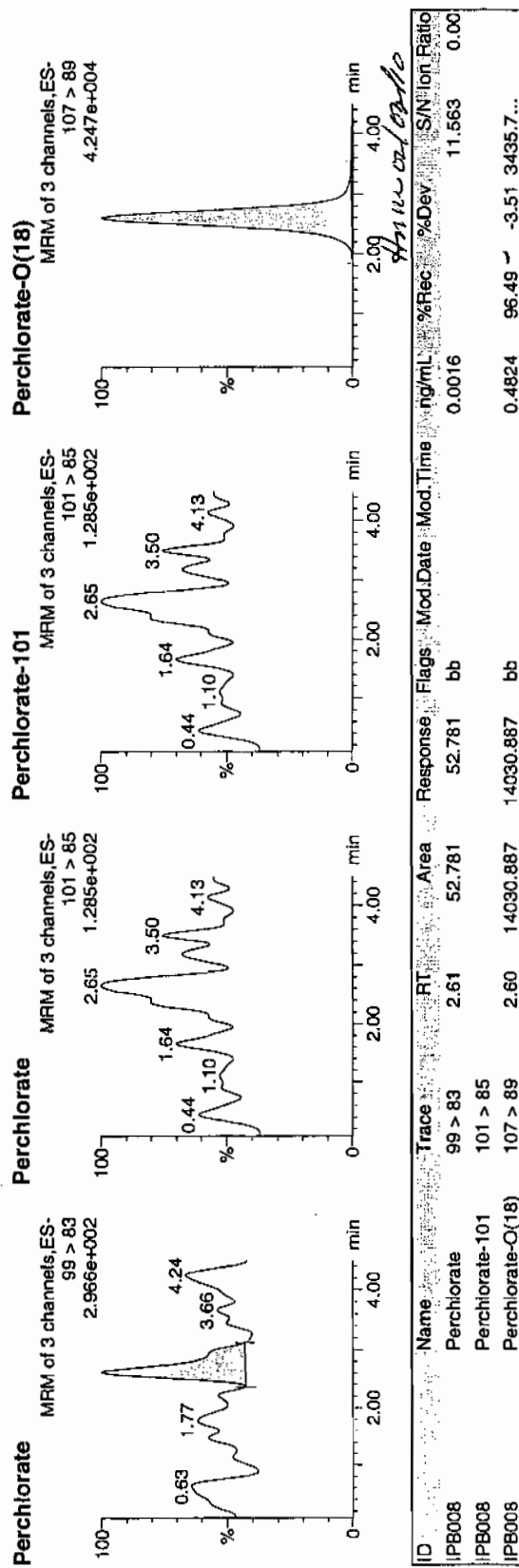
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131066a  
Date: 31-Jan-2010  
Time: 20:34:13  
ID: IPB008  
Vial: 1:1,A

000  
OL-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Int Ratio
IPB008	Perchlorate	99 > 83	2.61	52.781	52.781	bb			0.0016			11.563	0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	2.60	14030.887	14030.887	bb			0.4824	96.49	-3.51	3435.7...	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131075a

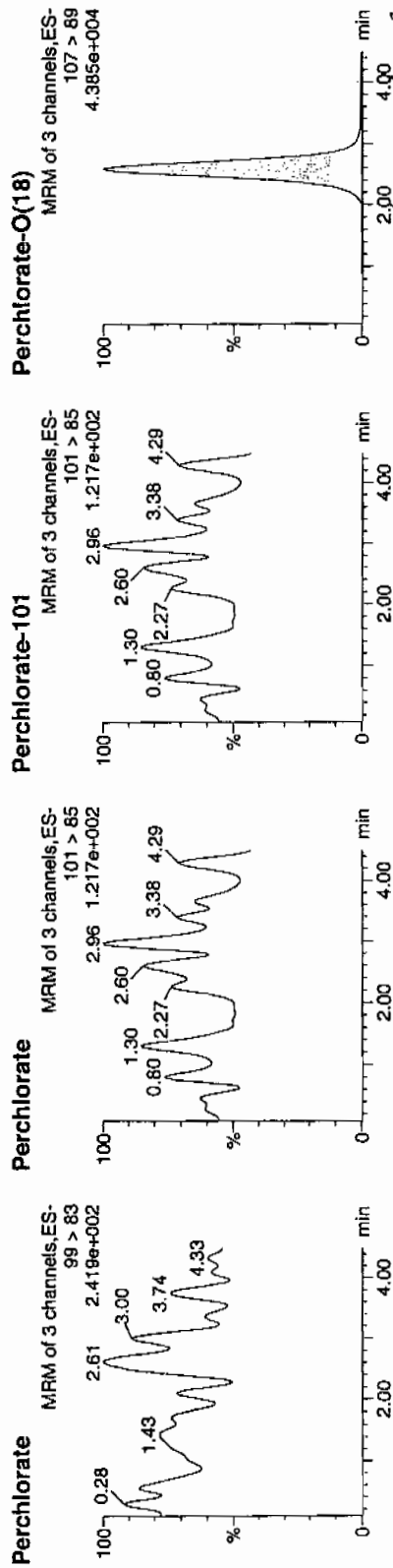
Date: 31-Jan-2010

Time: 21:42:14

ID: IPB009

Vial: 1:1,A

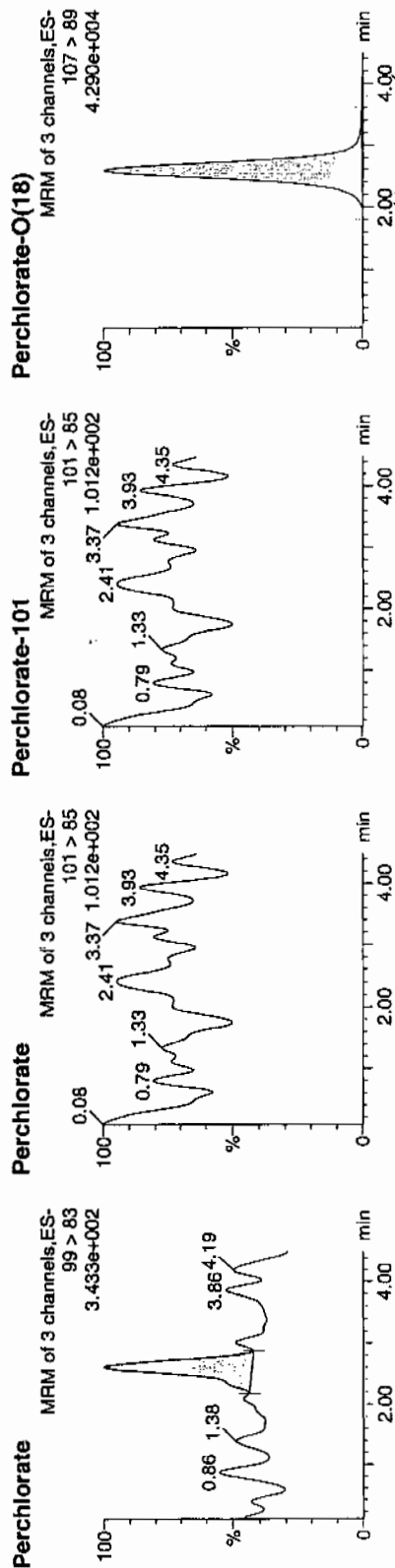
02-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	2.59	14440.522	14440.522	bb			0.4965	99.31	-0.69	3410.0...	



02-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83	2.61	54.315	54.315	bb			0.0016			12.130	0.00
IPB010	Perchlorate-101	101 > 85											
IPB010	Perchlorate-O(18)	107 > 89	2.60	14165.403	14165.403	bb			0.4871	97.41	-2.59	1328.2...	

Nairb.ref

;Positive ion monoisotopic and average masses from solution  
 ;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H<sub>2</sub>O.  
 ;Most useful general purpose calibrant for all low  
 ;MW applications, including MS/MS work.  
 ;At high resolution, readily covers from m/z 50-2000.  
 ;At reduced resolution, can be used to over m/z 3000.  
 ;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.  
 Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

QUANTO ULTIMA: nairb\_01\_08\_08.cal

Calibration Report - MS1 Static

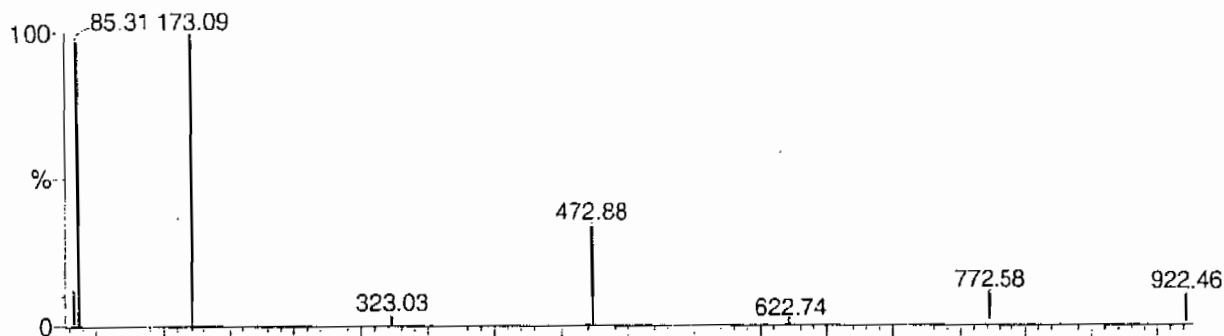
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

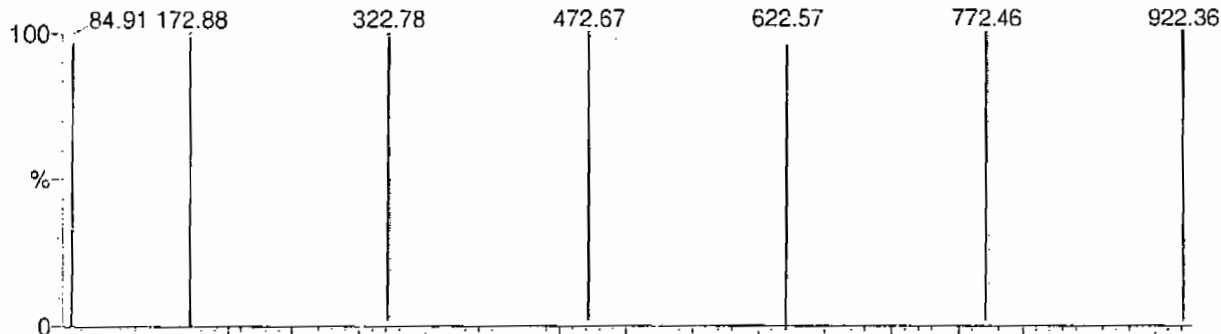
POINTS HIGHLIGHTED BY CURVED 01-08-08

Data file: STATMS1 - Uncalibrated

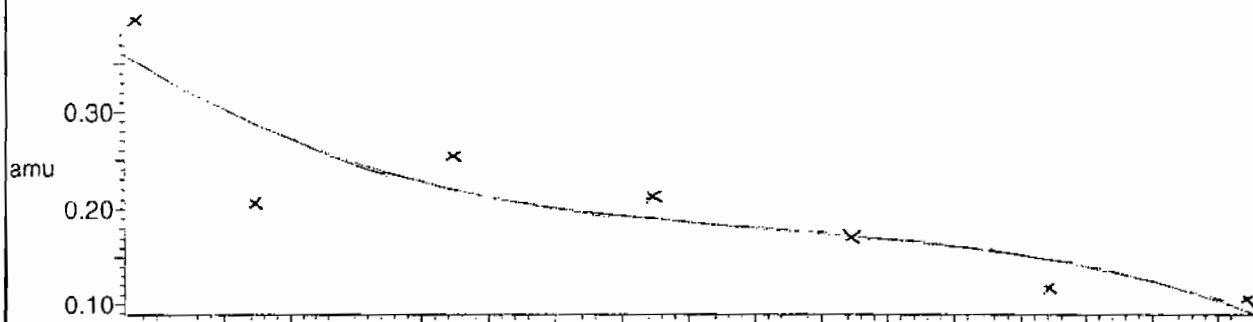
7 matches of 7 tested references



Reference file: Nairb

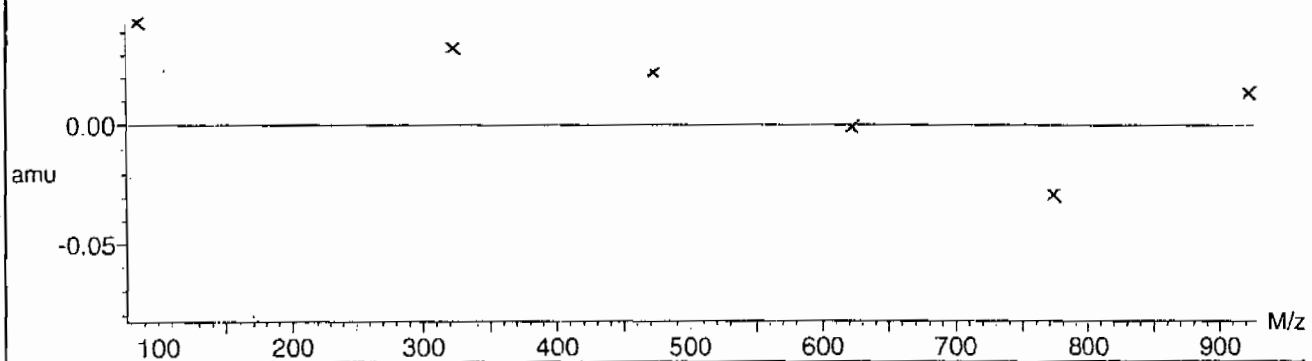


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.212012 \times 10^{-2} \pm 0.024108$

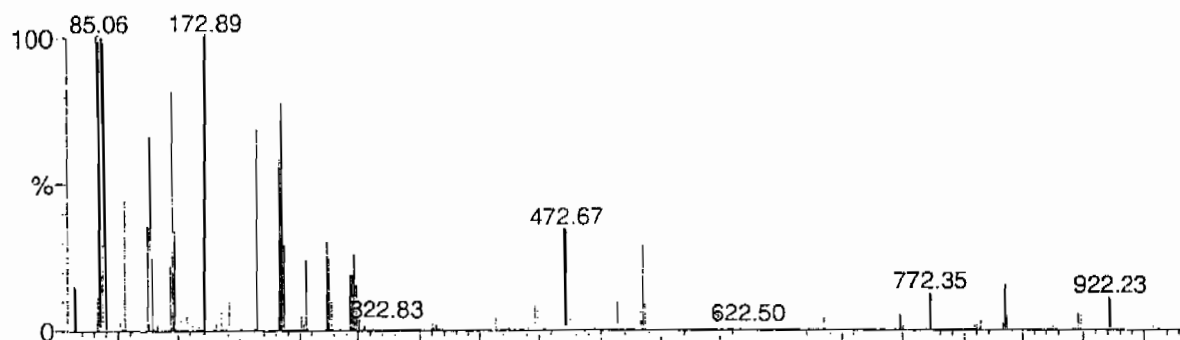


Calibration Report - MS1 Scanning

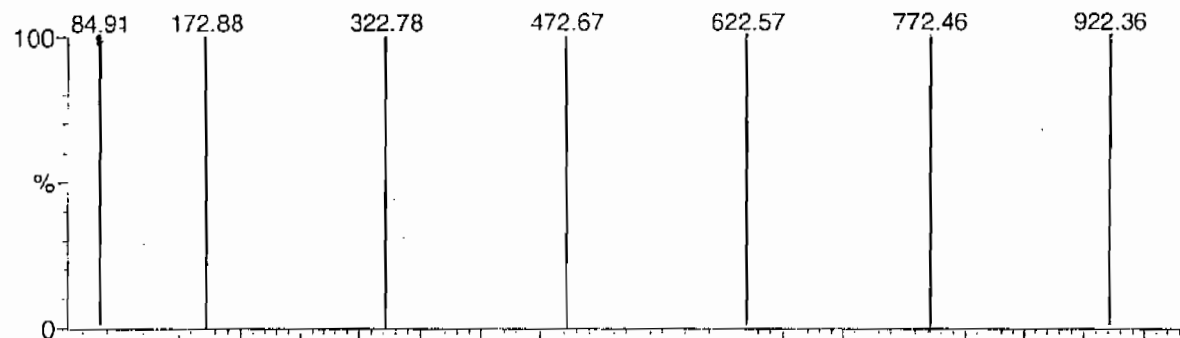
Page 1 of 1

Printed: Tue Jan 08 12:20:09 2008

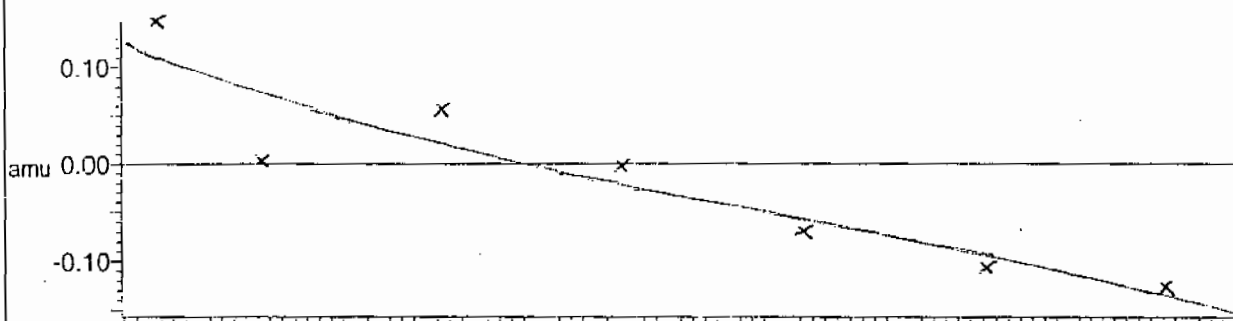
Data file: SCNMS1 - Uncalibrated 7 matches of 7 tested references



Reference file: Nairb

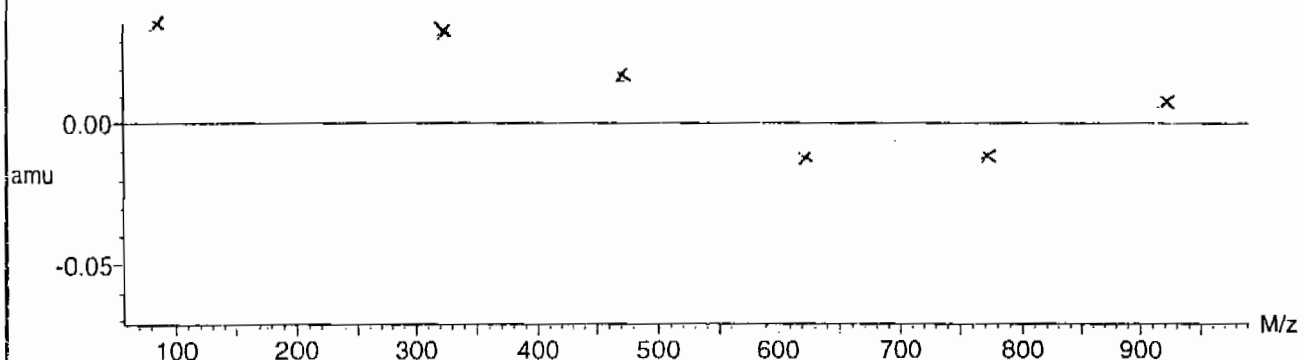


Mass difference (Raw - Ref mass)



Residuals

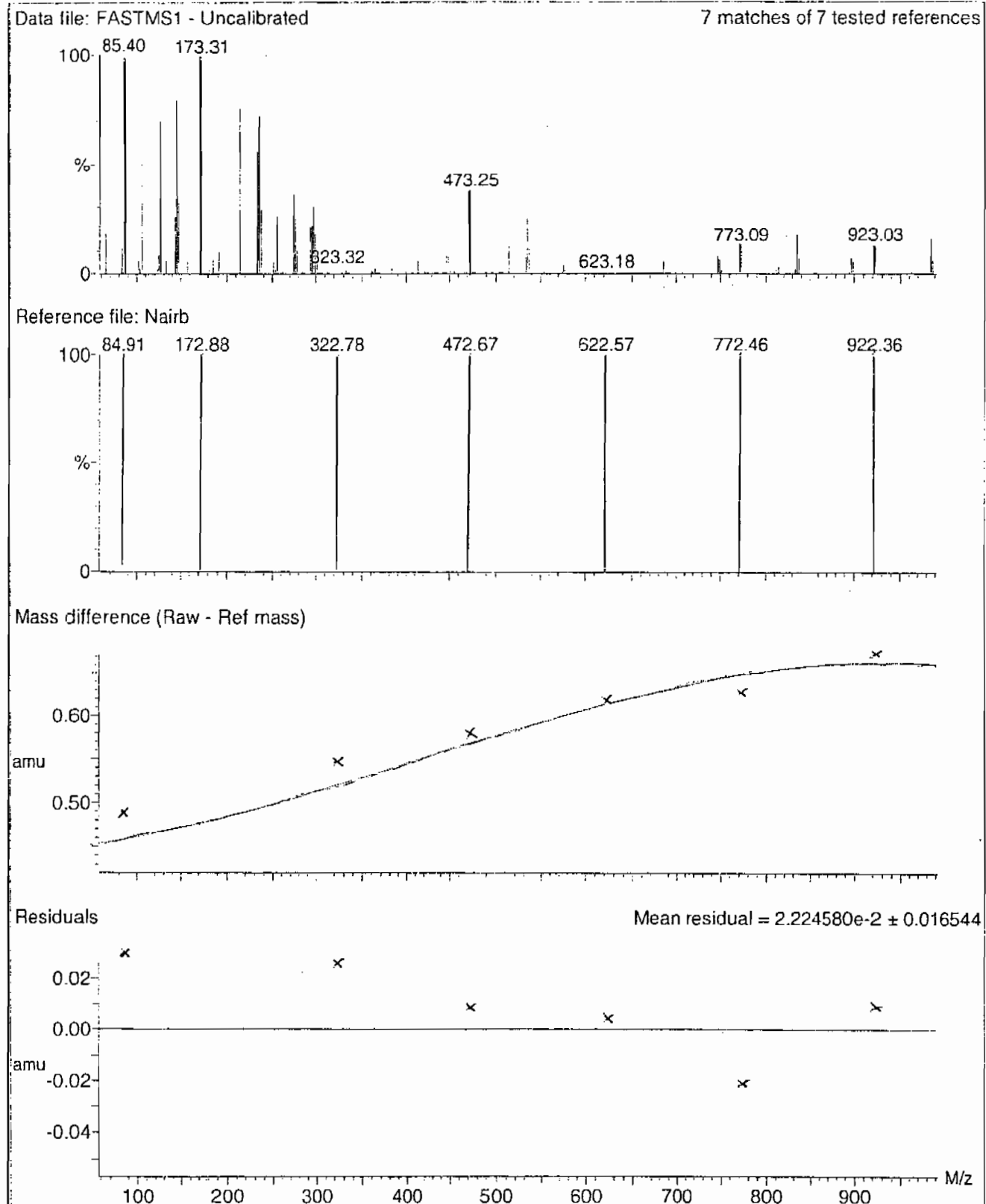
Mean residual =  $2.732691 \times 10^{-2} \pm 0.020653$



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:21:04 2008



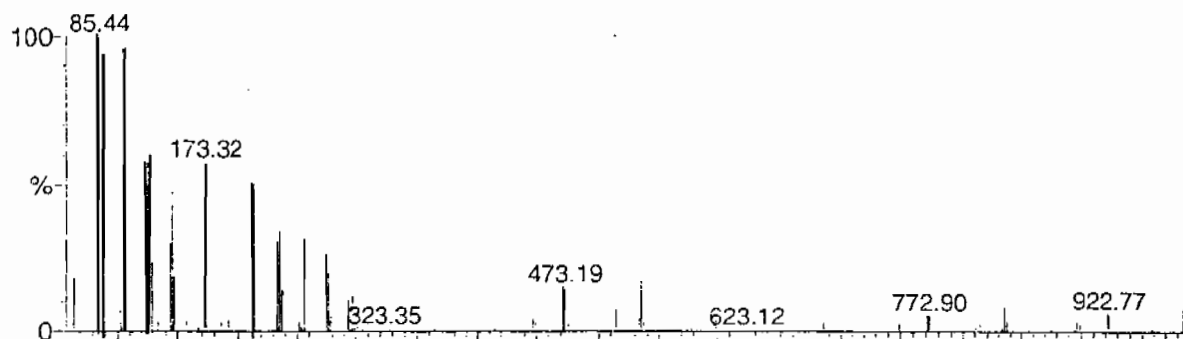
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

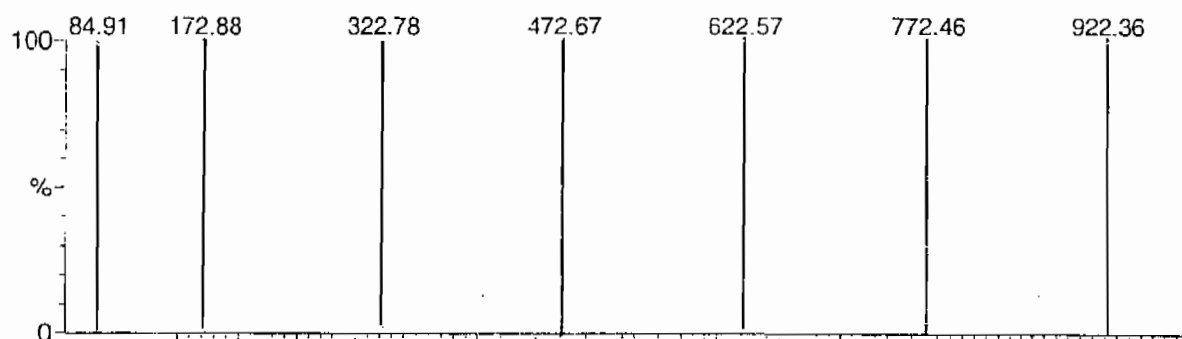
Printed: Tue Jan 08 12:23:51 2008

Data file: FASTMS2 - Uncalibrated

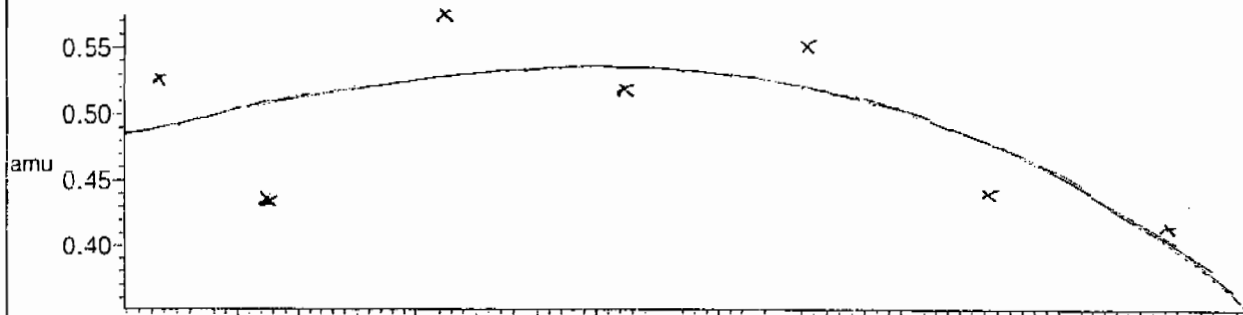
7 matches of 7 tested references



Reference file: Nairb

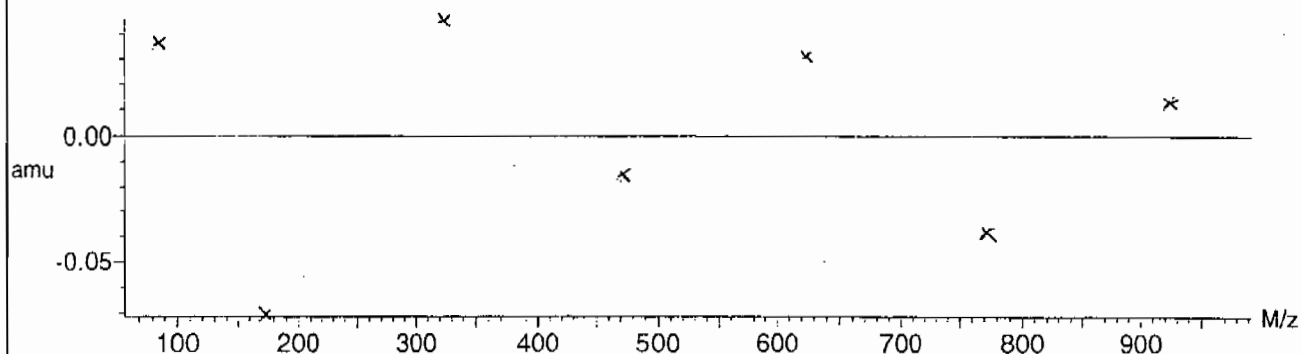


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.598289 \times 10^{-2} \pm 0.017899$



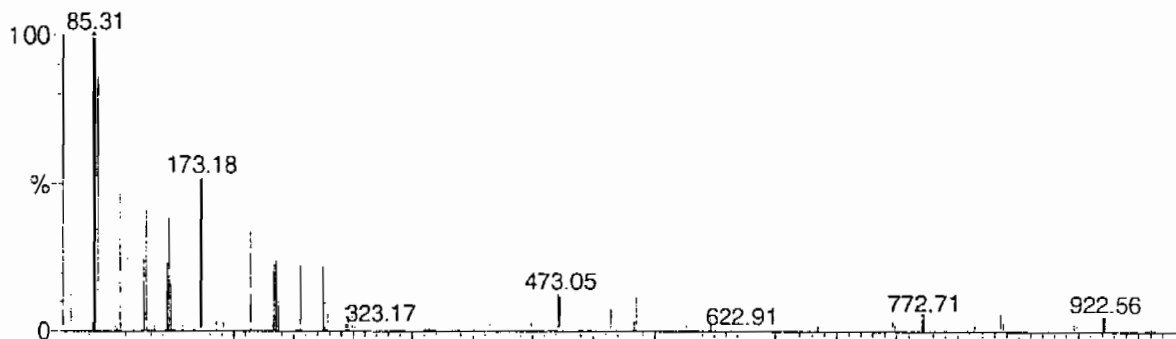
Calibration Report - MS2 Scanning

Page 1 of 1

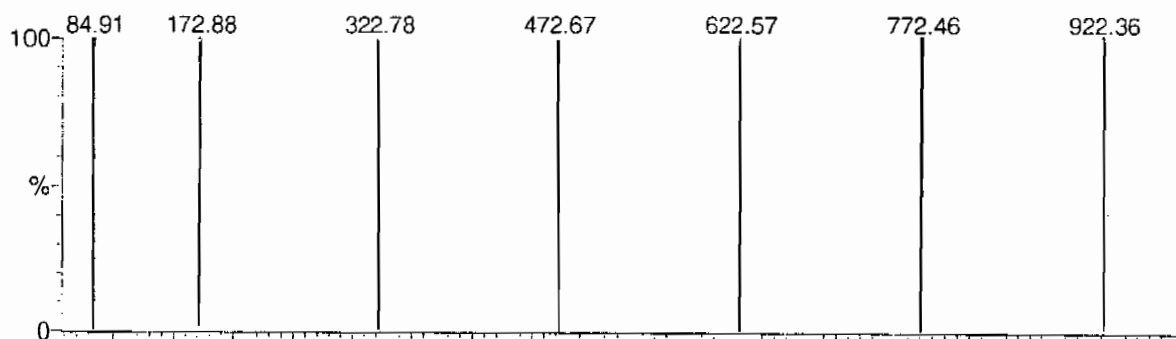
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

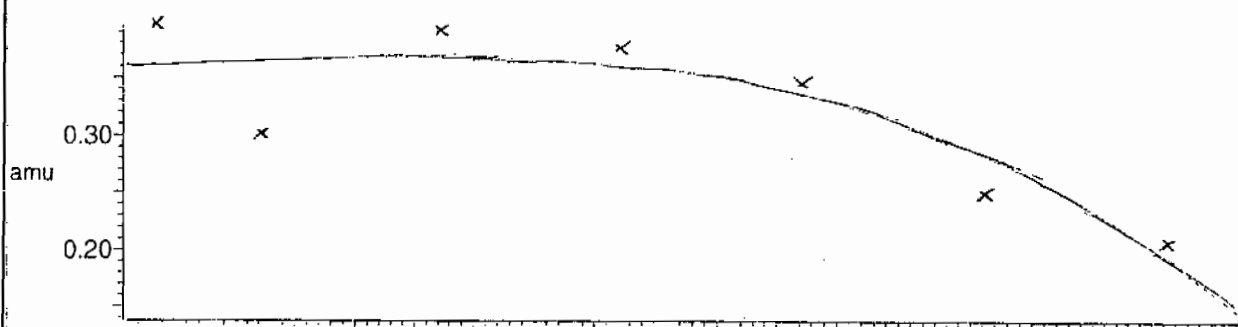
7 matches of 7 tested references



Reference file: Nairb

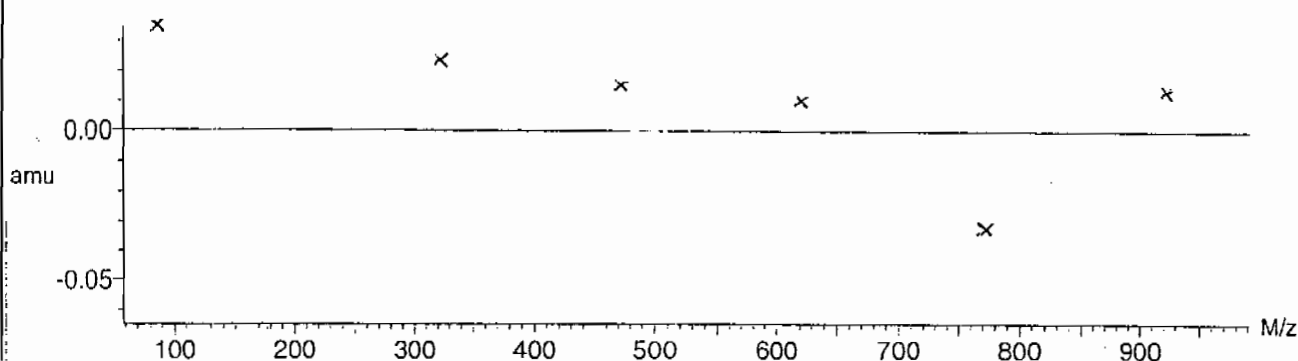


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.782494 \times 10^{-2} \pm 0.017442$



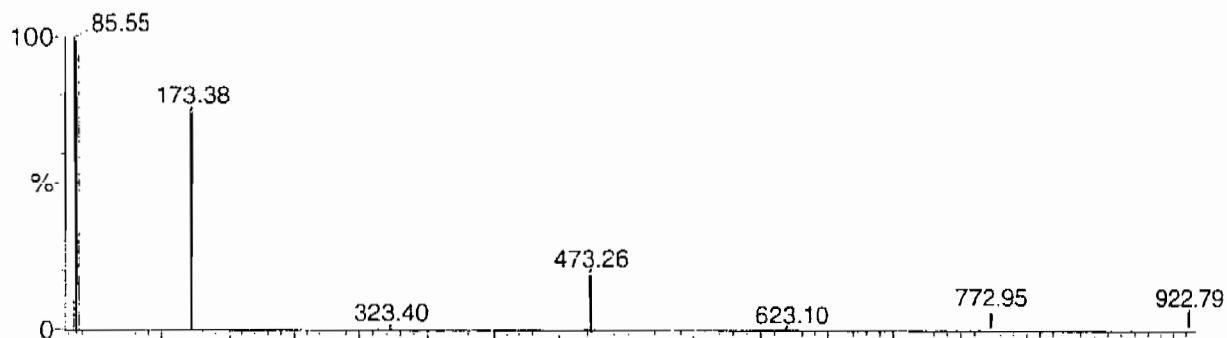
Calibration Report - MS2 Static

Page 1 of 1

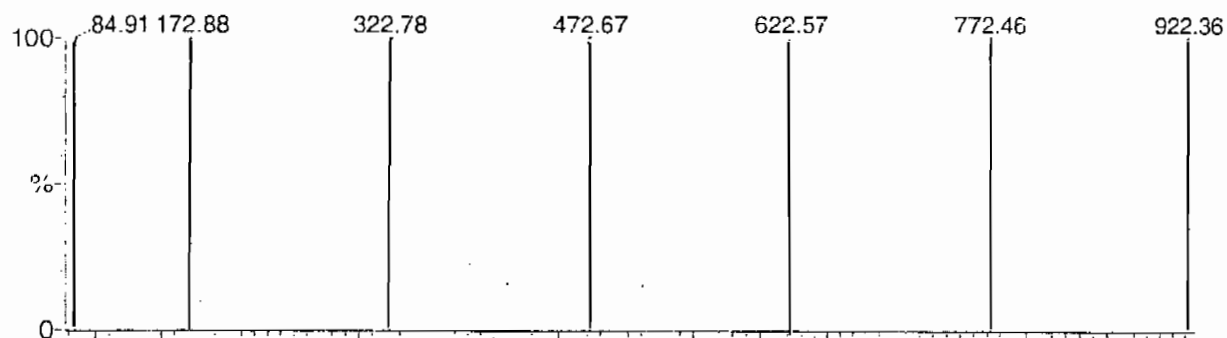
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

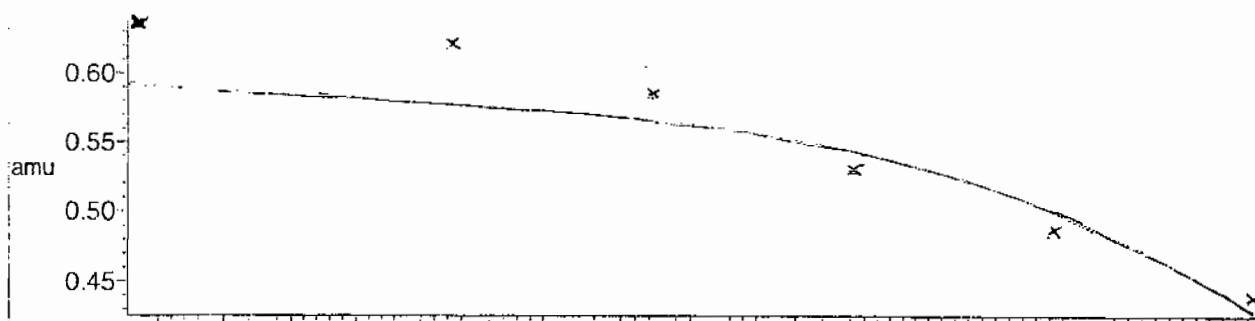
7 matches of 7 tested references



Reference file: Nairb

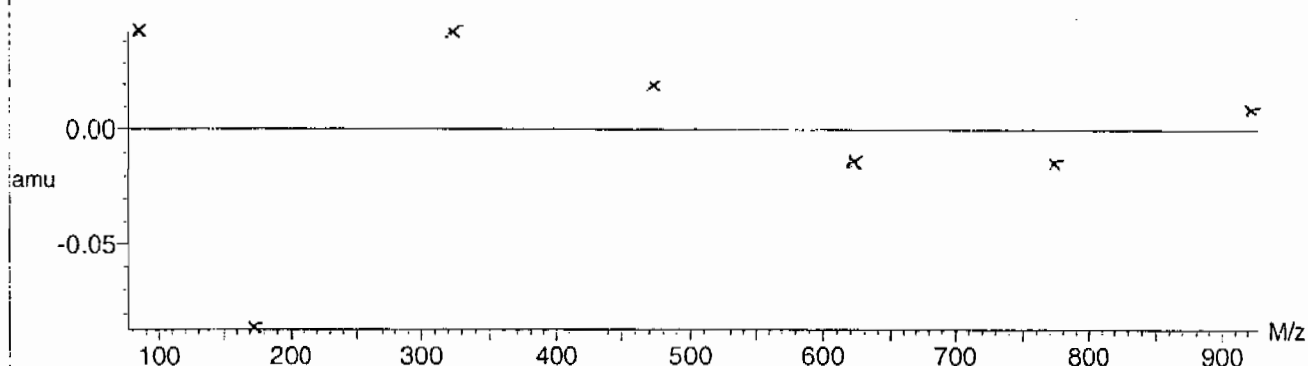


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.295980 \times 10^{-2} \pm 0.025603$





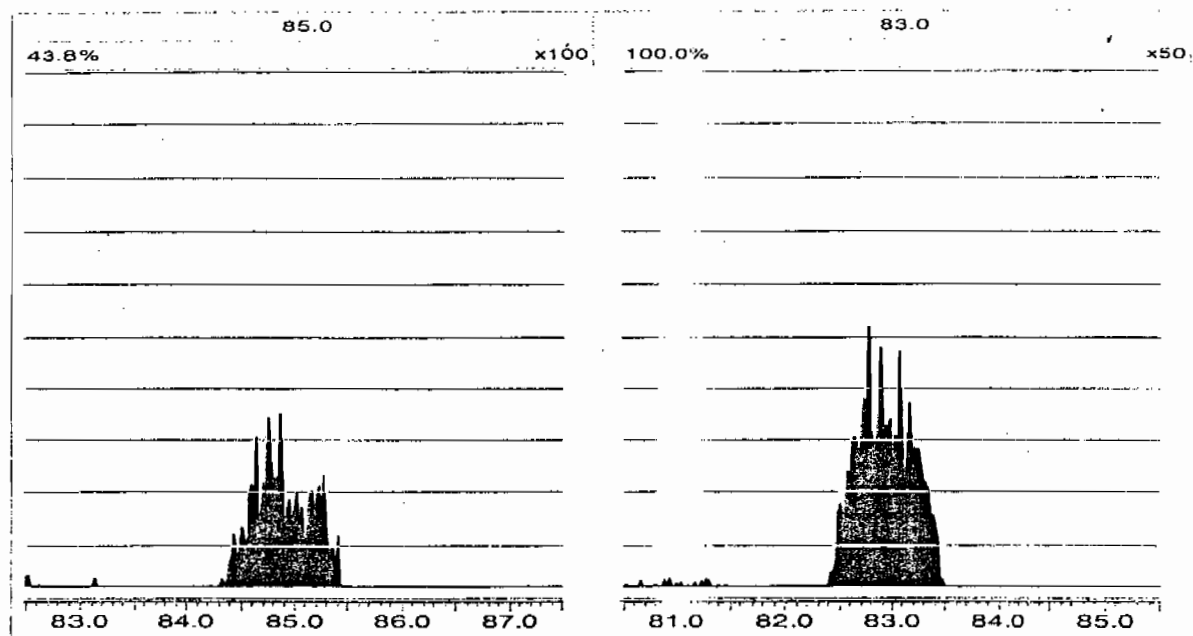
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, January 31, 2010 11:10:18 Eastern Standard Time



Form 8

Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1433-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG--16.2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0131006a	31-JAN-10	14758				
Lower Area Limit			7379				
Upper Area Limit			29516				
1202028960	per0131046a	31-JAN-10 18:02	13448.4	2.63	2.65055	1.008	
1202028961	per0131047a	31-JAN-10 18:10	13238.3	2.61	2.62565	1.006	
1202028966	per0131048a	31-JAN-10 18:17	13812.1	2.64	2.65053	1.004	
245690001	per0131069a	31-JAN-10 20:57	13897.2	2.6	2.61328	1.005	
245690002	per0131070a	31-JAN-10 21:04	14661.7	2.6	2.62563	1.01	

# SAMPLE DATA

## Perchlorate Analysis Data Sheet

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 247198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

RE15-10-8080

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 245690001

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate Isotope Ratio						1	31-JAN-10 20:57	per0131069a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate-O(18)			0.478	ug/L		1	31-JAN-10 20:57	per0131069a

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

\*Concentration =

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

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131069a

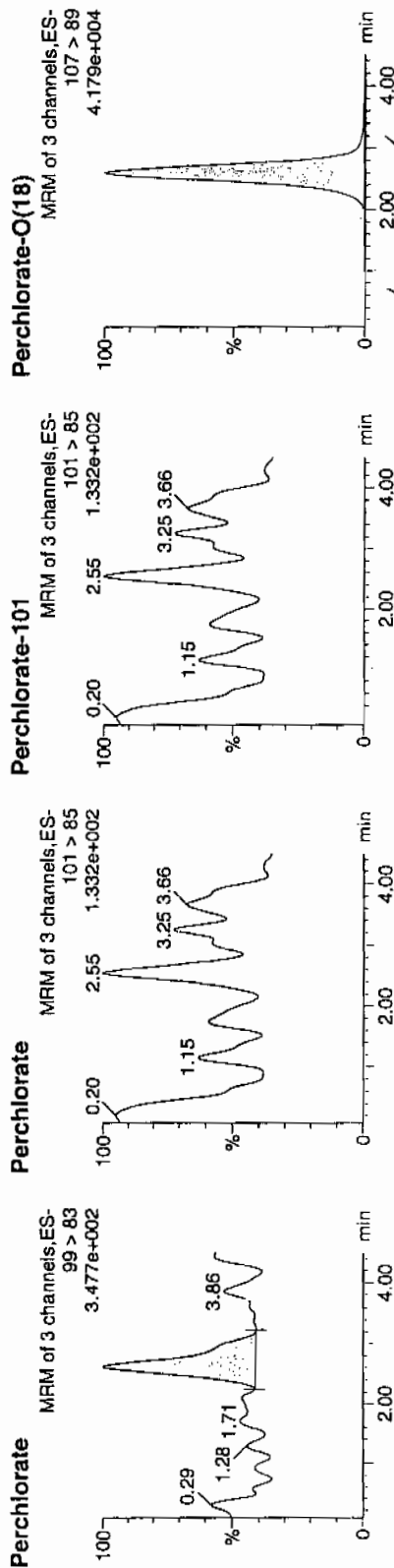
Date: 31-Jan-2010

Time: 20:57:00

ID: 245690001

Vial: 2:3,F

LANE | 94799 | 122 | 11  
01-31-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
245690001	Perchlorate	99 > 83	2.61	74.521	74.521	bb			0.0022			14.997	0.00
245690001	Perchlorate-101	101 > 85											
245690001	Perchlorate-O(18)	107 > 89	2.60	13897.172	13897.172	bb			0.4778	95.57	-4.43	6687.8...	

## Perchlorate Analysis Data Sheet

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 247198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

RE15-10-8079

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 245690002

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate Isotope Ratio						1	31-JAN-10 21:04	per0131070a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate-O(18)			0.504	ug/L		1	31-JAN-10 21:04	per0131070a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids  
Aliquot

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
 Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131070a

Date: 31-Jan-2010

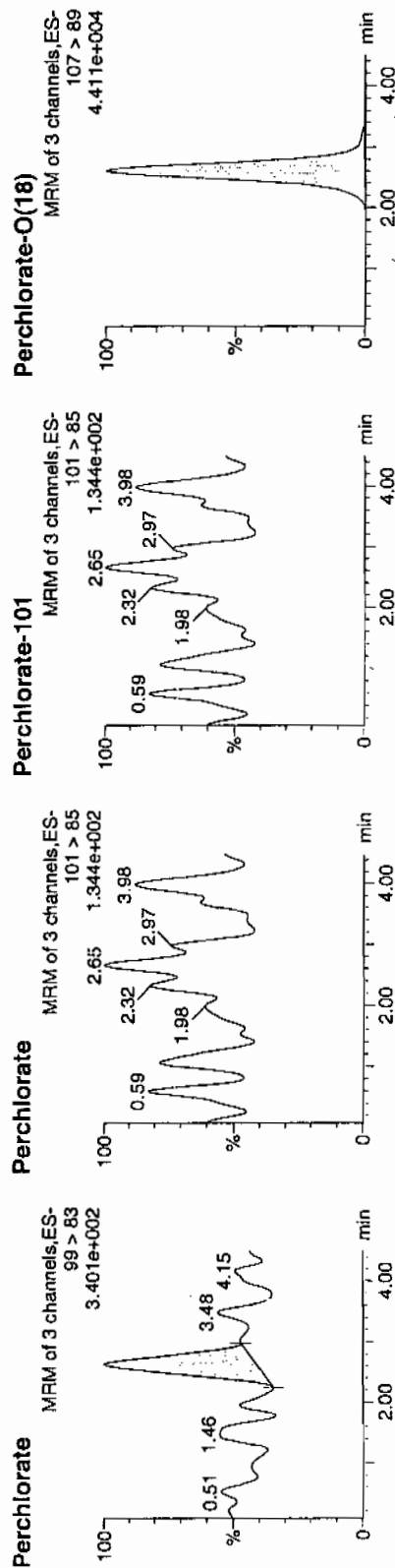
Time: 21:04:31

ID: 245690002

Vial: 2:4.A

6323  
 02-01-10

1222 | 947194 | 1222 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245690002	Perchlorate	99 > 83	2.63	69.280	69.280	bb			0.0020			10.889	0.00
245690002	Perchlorate-101	101 > 85											
245690002	Perchlorate-O(18)	107 > 89	2.60	14661.725	14661.725	bb			0.5041	100.83	- 0.83	3446.0...	

*Handwritten:* 100.02/0.02

# STANDARDS DATA



Perchlorate Initial Calibration

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 31-JAN-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parname Perchlorate

Coefficient of Determination:

Calibration Curve: 33819.9

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 31-JAN-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 11367

Response Type: External Standard

Curve Type: RF

# Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time

Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per013110a.mdb 01 Feb 2010 10:44:50

Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per013110a.cdb 01 Feb 2010 10:45:05

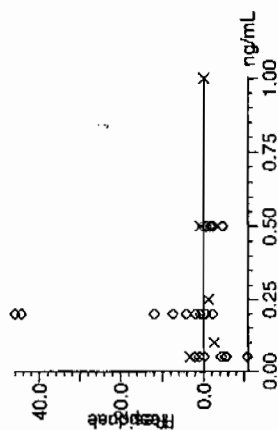
Compound name: Perchlorate

Response Factor: 33819.9

RRF SD: 737.507, % Relative SD: 2.18069

Response type: External Std, Area

Curve type: RF



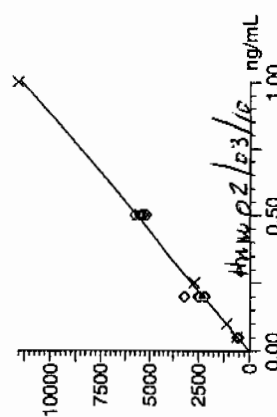
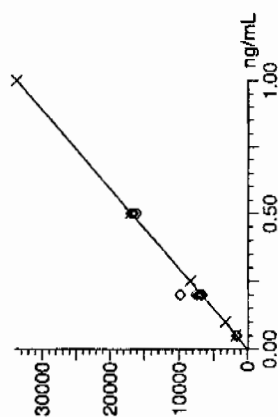
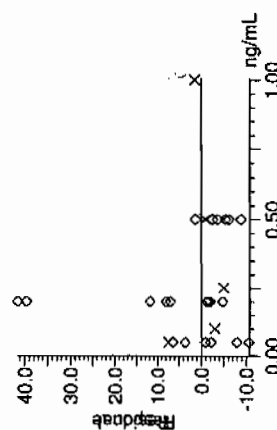
Compound name: Perchlorate-101

Response Factor: 11367

RRF SD: 542.649, % Relative SD: 4.7739

Response type: External Std, Area

Curve type: RF



02-01-10

Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

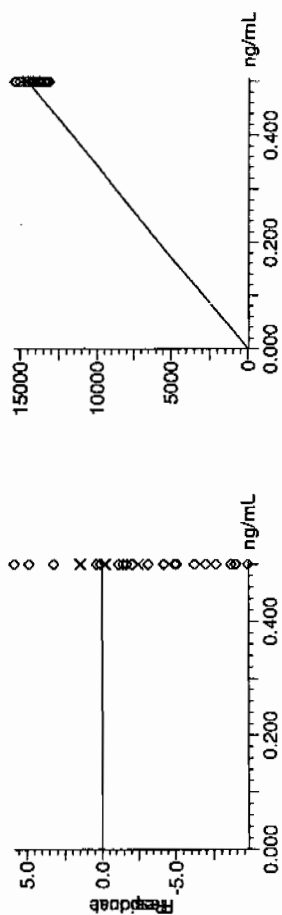
Compound name: Perchlorate-O(18)

Response Factor: 29083

RRF SD: 471.184, % Relative SD: 1.62014

Response type: External Std, Area

Curve type: RF



Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

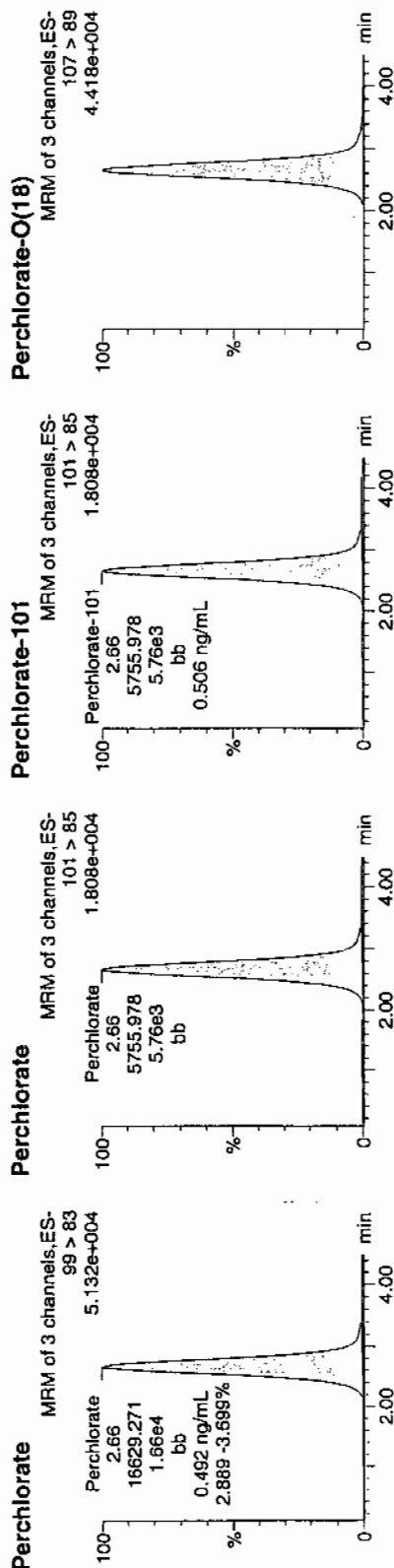
GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.34	31-JAN-10 13:23	per0131009a
Perchlorate Isotope Ratio		2.89		31-JAN-10 13:23	per0131009a
Perchlorate-101	.5	.51	101.28	31-JAN-10 13:23	per0131009a

Pass  
 and  
 02-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	2.66	16629.271	16629.271	bb			0.4917	98.34	-1.66	1435.3...	2.89
WCL100128-06ICV	Perchlorate-101	101 > 85	2.66	5755.978	5755.978	bb			0.5064	101.28	1.28	591.471	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	2.66	14373.936	14373.936	bb			0.4942	98.85	-1.15	3087.1...	

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	95.54	31-JAN-10 14:54	per0131021a
Perchlorate Isotope Ratio		2.92		31-JAN-10 14:54	per0131021a
Perchlorate-101	.5	.49	97.46	31-JAN-10 14:54	per0131021a
Perchlorate	.5	.48	95.21	31-JAN-10 16:17	per0131032a
Perchlorate Isotope Ratio		3.02		31-JAN-10 16:17	per0131032a
Perchlorate-101	.5	.47	93.93	31-JAN-10 16:17	per0131032a
Perchlorate	.5	.48	95.2	31-JAN-10 17:40	per0131043a
Perchlorate Isotope Ratio		2.94		31-JAN-10 17:40	per0131043a
Perchlorate-101	.5	.48	96.44	31-JAN-10 17:40	per0131043a
Perchlorate	.5	.5	99.25	31-JAN-10 19:03	per0131054a
Perchlorate Isotope Ratio		3.14		31-JAN-10 19:03	per0131054a
Perchlorate-101	.5	.47	93.9	31-JAN-10 19:03	per0131054a
Perchlorate	.5	.5	100.12	31-JAN-10 20:26	per0131065a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.15		31-JAN-10 20:26	per0131065a
Perchlorate-101	.5	.47	94.61	31-JAN-10 20:26	per0131065a
Perchlorate	.5	.49	97.71	31-JAN-10 21:57	per0131077a
Perchlorate Isotope Ratio		3.19		31-JAN-10 21:57	per0131077a
Perchlorate-101	.5	.46	91.15	31-JAN-10 21:57	per0131077a



Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131021a

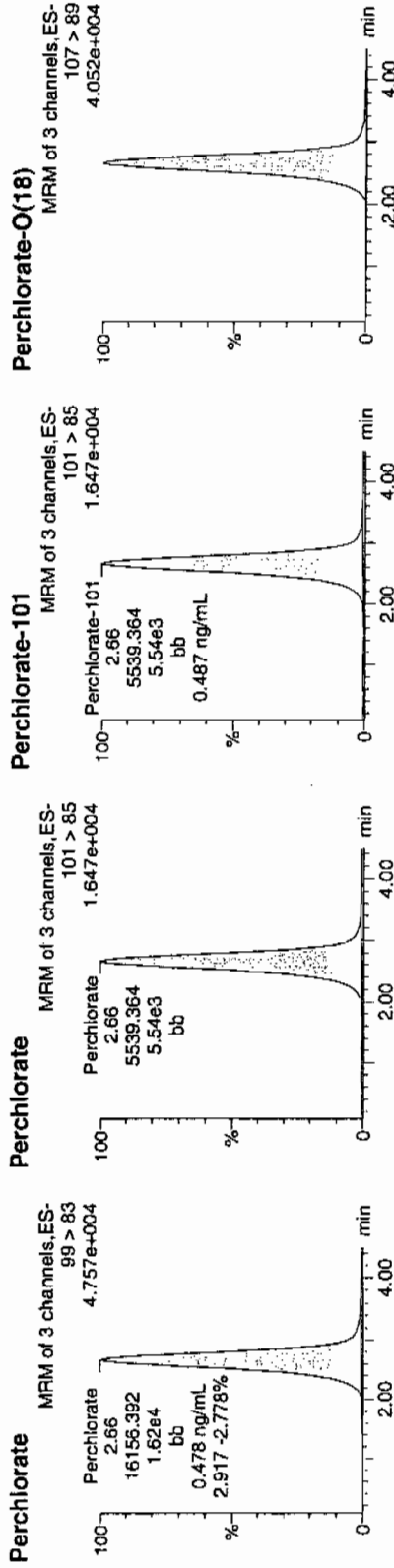
Date: 31-Jan-2010

Time: 14:54:02

ID: WCL100128-06CCV

Vial: 1:2,A

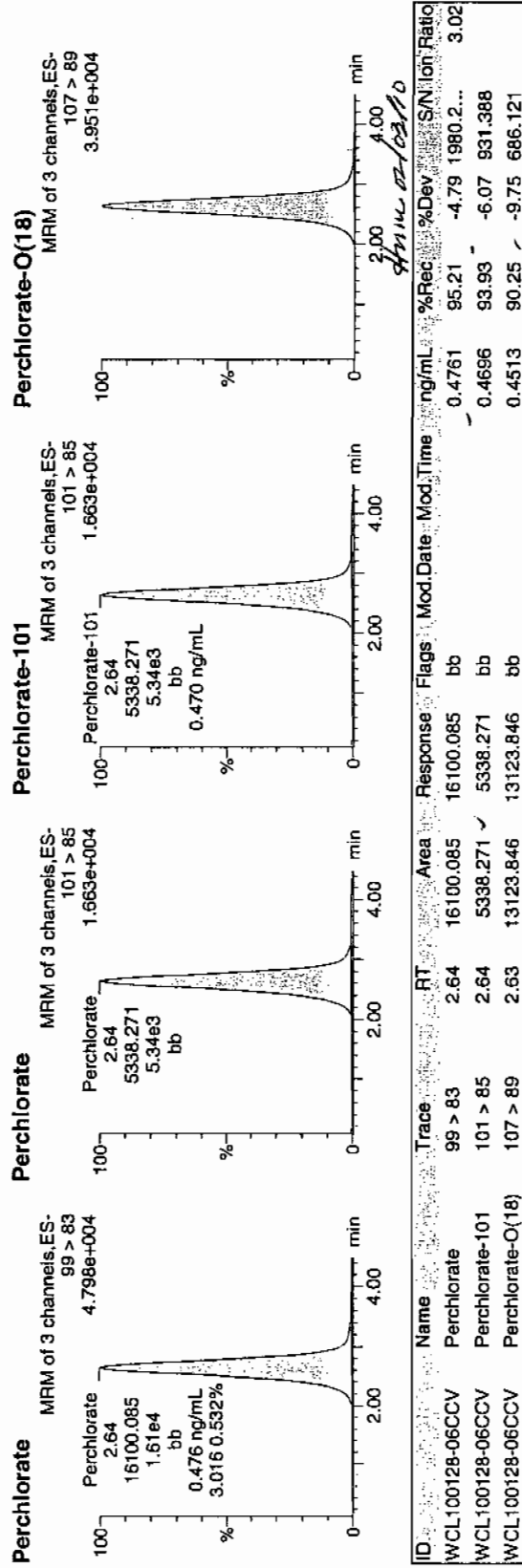
*Per*  
*and*  
*02-01-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.66	16156.392	16156.392	bb			0.4777	95.54	-4.46	559.772	2.92
WCL100128-06CCV	Perchlorate-101	101 > 85	2.66	5539.364	5539.364	bb			0.4873	97.46	-2.54	691.093	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.65	13809.432	13809.432	bb			0.4748	94.97	-5.03	2631.7...	

Name: per0131032a  
Date: 31-Jan-2010  
Time: 16:17:01  
ID: WCL100128-06CCV  
Vial: 1:2,A

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and  
01-01-10



# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
 Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131043a

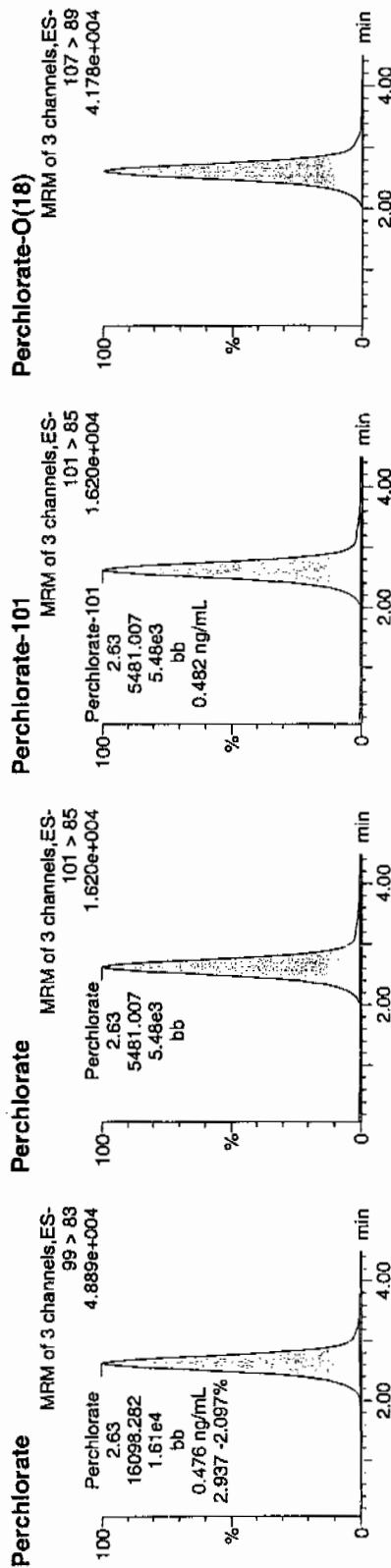
Date: 31-Jan-2010

Time: 17:40:03

ID: WCL100128-06CCV

Vial: 1:2,A

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 02-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.63	16098.282	16098.282	bb			0.4760	95.20	-4.80	1056.1...	2.94
WCL100128-06CCV	Perchlorate-101	101 > 85	2.63	5481.007	5481.007	bb			0.4822	96.44	-3.56	523.363	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.61	13816.302	13816.302	bb			0.4751	95.01	-4.99	10733...	

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time

Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131054a

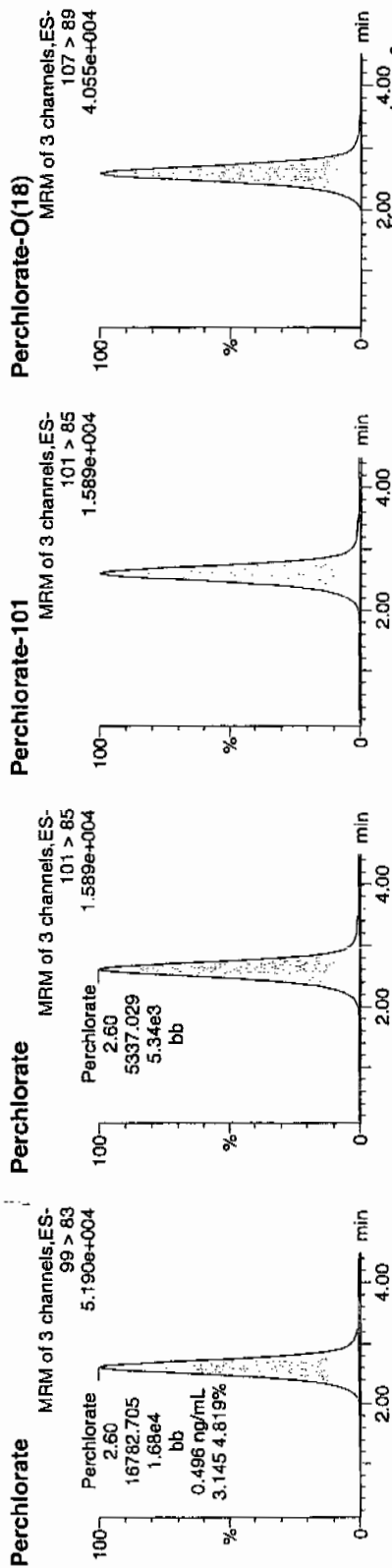
Date: 31-Jan-2010

Time: 19:03:06

ID: WCL100128-06CCV

Vial: 1:2,A

*Pass and*  
02-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	IS/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.60	16782.705	16782.705	bb			0.4962	99.25	-0.75	363.629	3.14
WCL100128-06CCV	Perchlorate-101	101 > 85	2.60	5337.029	5337.029	bb			0.4695	93.90	-6.10	1594.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.60	13526.200	13526.200	bb			0.4651	93.02	-6.98	3181.7...	

**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131065a

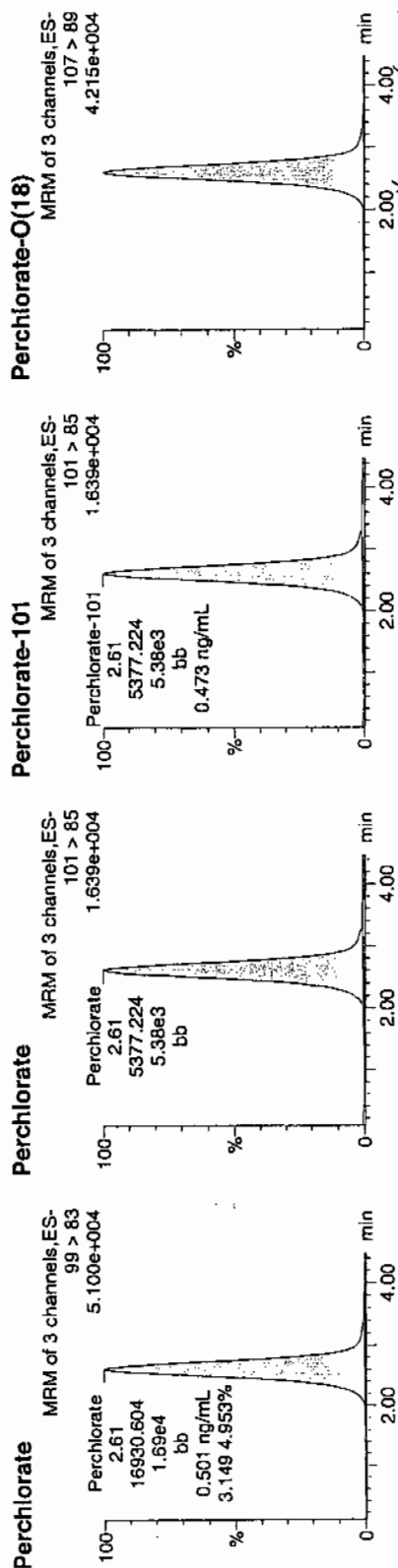
Date: 31-Jan-2010

Time: 20:26:26

ID: WCL100128-06CCV

Vial: 1:2,A

*Per*  
*01-01-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.61	16930.604	16930.604	bb			0.5006	100.12	0.12	2310.5...	3.15
WCL100128-06CCV	Perchlorate-101	101 > 85	2.61	5377.224	5377.224	bb			0.4731	94.61	-5.39	916.330	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.60	13933.124	13933.124	bb			0.4791	95.82	-4.18	5137.3...	

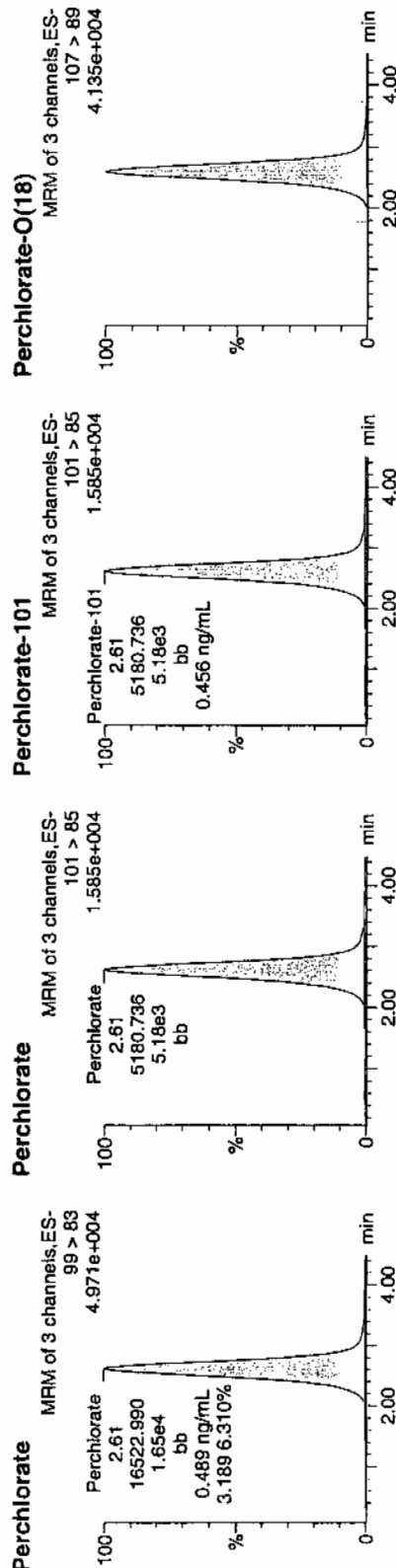
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131077a  
Date: 31-Jan-2010  
Time: 21:57:45  
ID: WCL100128-06CCV  
Vial: 1:2,A

*Per*  
*and*  
*01-31-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.61	16522.990	16522.990	bb			0.4886	97.71	-2.29	1711.4...	3.19
WCL100128-06CCV	Perchlorate-101	101 > 85	2.61	5180.736	5180.736	bb			0.4558	91.15	-8.85	1110.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.60	13635.730	13635.730	bb			0.4689	93.77	-6.23	6209.2...	

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	99.8	31-JAN-10 13:38	per0131011a
Perchlorate Isotope Ratio		2.79		31-JAN-10 13:38	per0131011a
Perchlorate-101	.05	.05	106.42	31-JAN-10 13:38	per0131011a
Perchlorate	.05	.05	101.06	31-JAN-10 15:09	per0131023a
Perchlorate Isotope Ratio		3.03		31-JAN-10 15:09	per0131023a
Perchlorate-101	.05	.05	99.13	31-JAN-10 15:09	per0131023a
Perchlorate	.05	.05	94.76	31-JAN-10 16:32	per0131034a
Perchlorate Isotope Ratio		3.06		31-JAN-10 16:32	per0131034a
Perchlorate-101	.05	.05	92.11	31-JAN-10 16:32	per0131034a
Perchlorate	.05	.04	89.19	31-JAN-10 17:55	per0131045a
Perchlorate Isotope Ratio		2.97		31-JAN-10 17:55	per0131045a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.04	89.43	31-JAN-10 17:55	per0131045a
Perchlorate	.05	.05	95.73	31-JAN-10 19:18	per0131056a
Perchlorate Isotope Ratio		2.68		31-JAN-10 19:18	per0131056a
Perchlorate-101	.05	.05	106.32	31-JAN-10 19:18	per0131056a
Perchlorate	.05	.05	102.23	31-JAN-10 20:41	per0131067a
Perchlorate Isotope Ratio		2.94		31-JAN-10 20:41	per0131067a
Perchlorate-101	.05	.05	103.57	31-JAN-10 20:41	per0131067a
Perchlorate	.05	.05	94.46	31-JAN-10 22:13	per0131079a
Perchlorate Isotope Ratio		2.87		31-JAN-10 22:13	per0131079a
Perchlorate-101	.05	.05	97.88	31-JAN-10 22:13	per0131079a



Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time

Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131011a

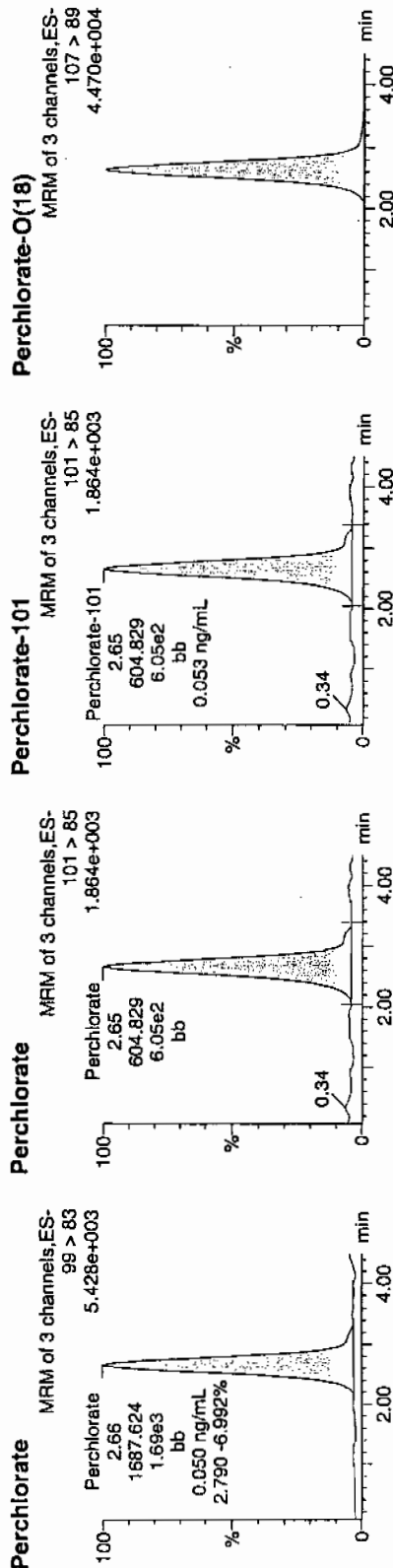
Date: 31-Jan-2010

Time: 13:38:34

ID: WCL100128-07CRI

Vial: 1:2,B

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CWS  
01-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.66	1687.624	1687.624	bb			0.0499	99.80	-0.20	385.644	2.79
WCL100128-07CRI	Perchlorate-101	101 > 85	2.65	604.829	604.829	bb			0.0532	106.42	6.42	201.132	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.64	14329.497	14329.497	bb			0.4927	98.54	-1.46	4076.8...	

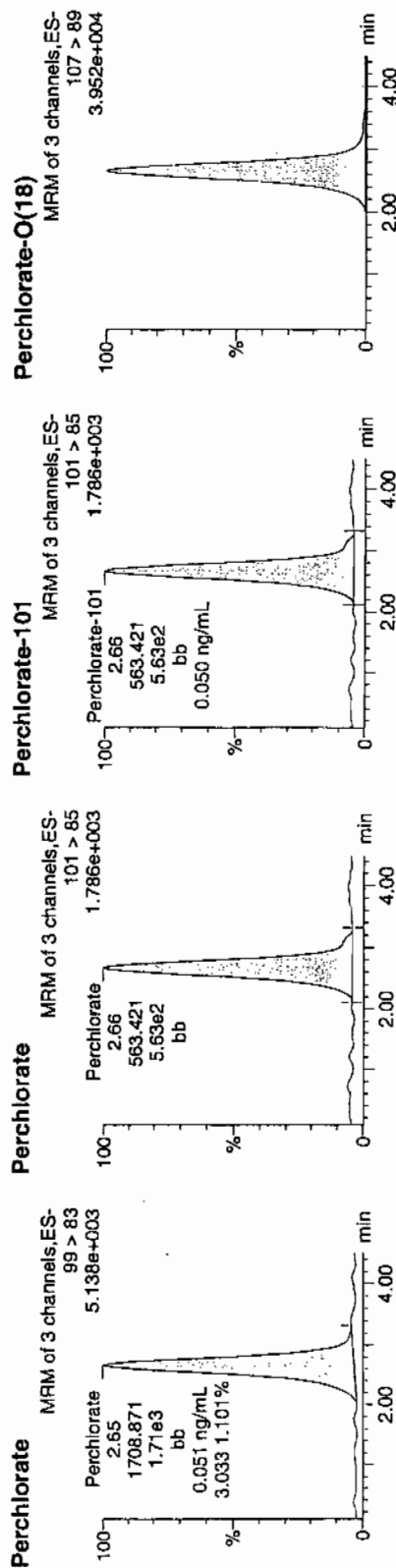
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131023a  
Date: 31-Jan-2010  
Time: 15:09:07  
ID: WCL100128-07CRI  
Vial: 1:2,B

Pure  
and  
01-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.65	1708.871	1708.871	bb			0.0505	101.06	1.06	90.206	3.03
WCL100128-07CRI	Perchlorate-101	101 > 85	2.66	563.421	563.421	bb			0.0496	99.13	-0.87	234.947	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.65	13430.074	13430.074	bb			0.4618	92.36	-7.64	1794.5...	

# Quantify Sample Report MassLynx 4.0 SP4

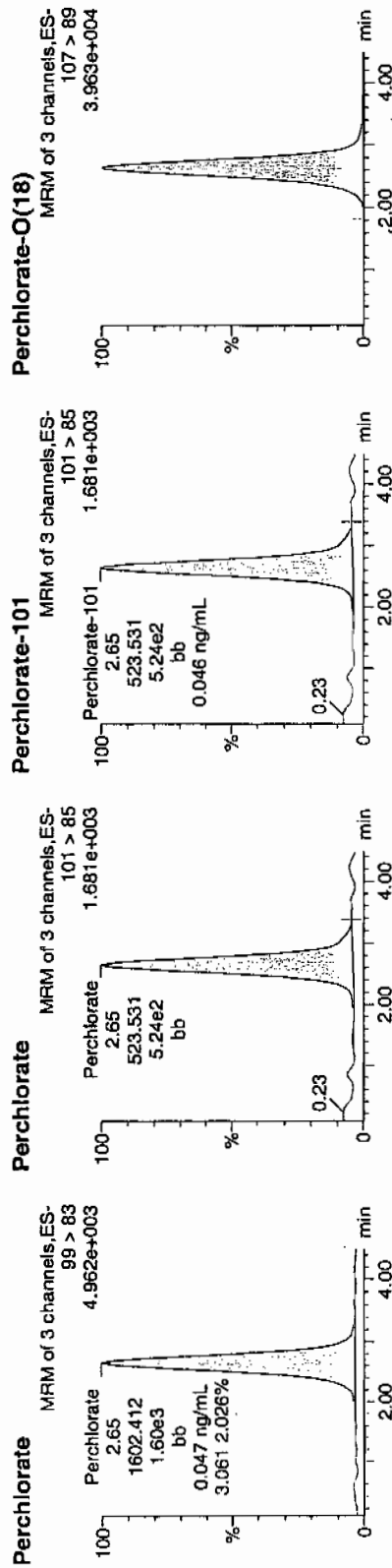
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
 Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131034a  
 Date: 31-Jan-2010  
 Time: 16:32:06  
 ID: WCL100128-07CRI  
 Vial: 1:2,B

*Pass  
 and  
 01-31-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.65	1602.412	1602.412	bb			0.0474	94.76	-5.24	128.941	3.06
WCL100128-07CRI	Perchlorate-101	101 > 85	2.65	523.531	523.531	bb			0.0461	92.11	-7.89	148.998	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.64	13291.097	13291.097	bb			0.4570	91.40	-8.60	3554.0...	

**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131045a

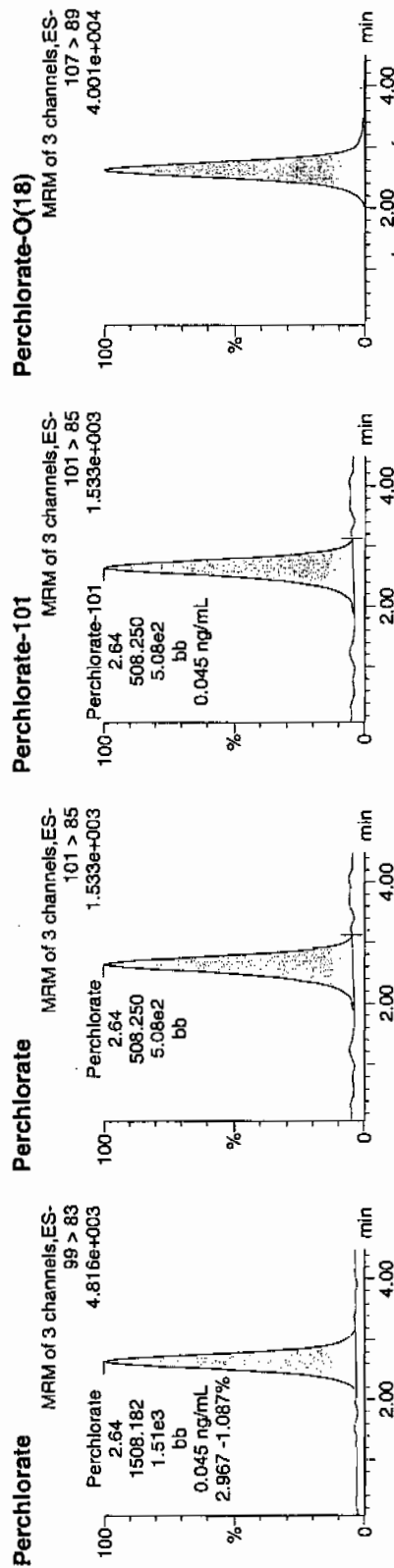
Date: 31-Jan-2010

Time: 17:55:09

ID: WCL100128-07CRI

Vial: 1:2,B

*Per0131045a*  
*01-31-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.64	1508.182	1508.182	bb			0.0446	89.19	-10.81	257.659	2.97
WCL100128-07CRI	Perchlorate-101	101 > 85	2.64	508.250	508.250	bb			0.0447	89.43	-10.57	61.987	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.63	13246.691	13246.691	bb			0.4555	91.10	-8.90	5001.8...	

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
 Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131056a

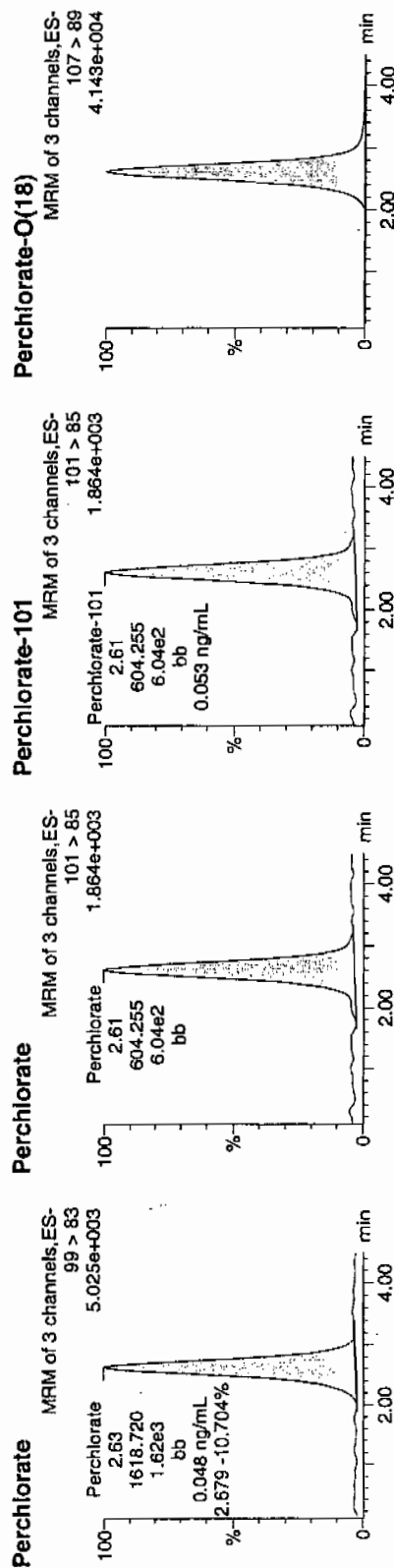
Date: 31-Jan-2010

Time: 19:18:25

ID: WCL100128-07CRI

Vial: 1:2,B

per  
 and  
 02-31-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.63	1618.720	1618.720	bb			0.0479	95.73	-4.27	296.151	2.68
WCL100128-07CRI	Perchlorate-101	101 > 85	2.61	604.255	604.255	bb			0.0532	106.32	6.32	17.440	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.61	13919.873	13919.873	bb			0.4786	95.73	-4.27	10057...	

done on 02/31/10

**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131067a

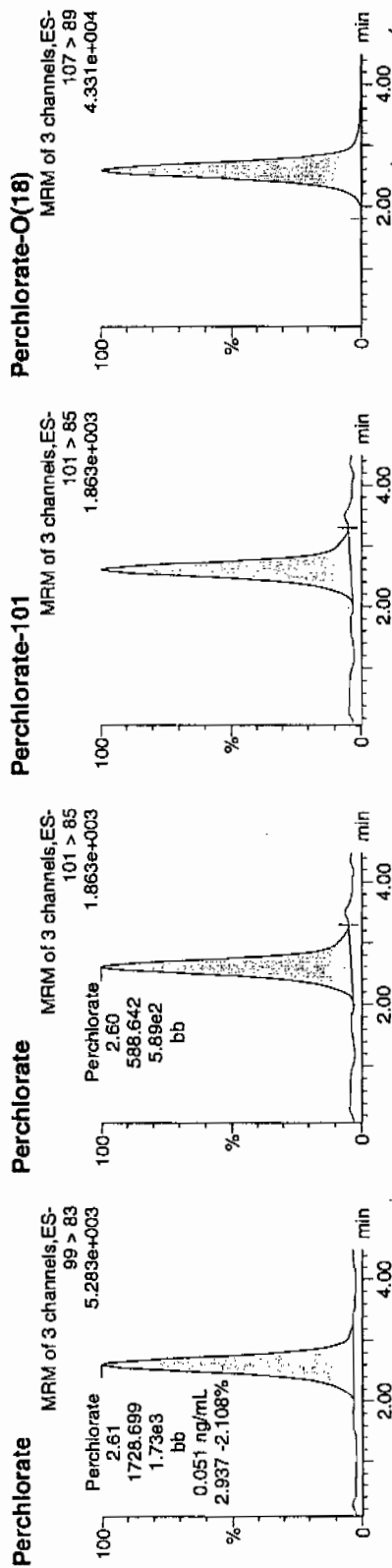
Date: 31-Jan-2010

Time: 20:41:45

ID: WCL100128-07CRI

Vial: 1;2,B

*Per*  
*ans*  
*2-3-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.61	1728.699	1728.699	bb			0.0511	102.23	2.23	392.527	2.94
WCL100128-07CRI	Perchlorate-101	101 > 85	2.60	588.642	588.642	bb			0.0518	103.57	3.57	130.060	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.59	14243.858	14243.858	bb			0.4898	97.95	-2.05	5194.8...	

*Shane 02/03/10*

Quantify Sample Report MassLynx 4.0 SP4

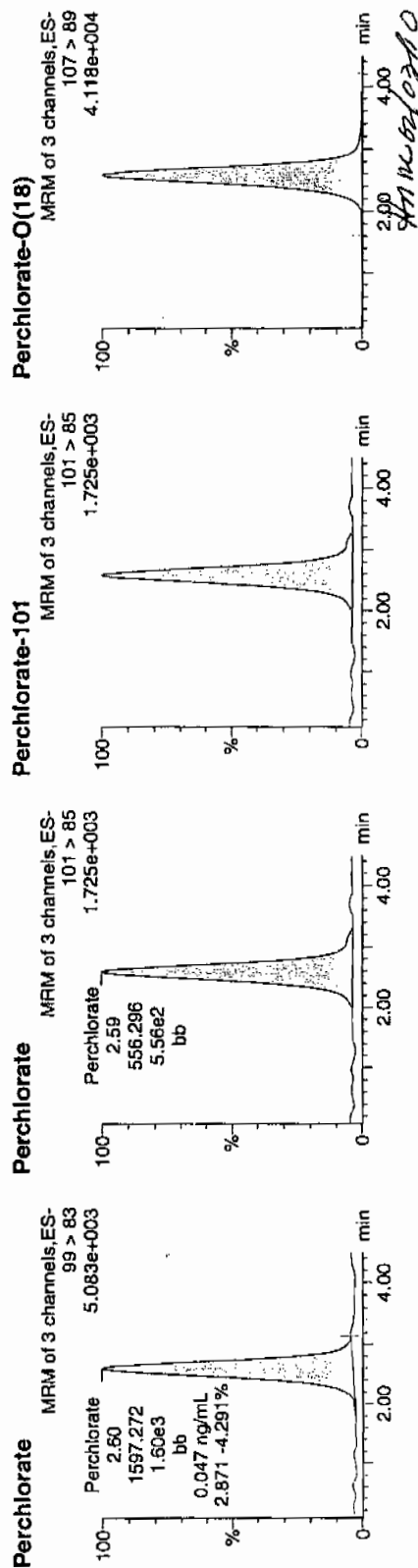
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131079a  
Date: 31-Jan-2010  
Time: 22:13:05  
ID: WCL100128-07CRI  
Vial: 1:2,B

Pure  
and  
02-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.60	1597.272	1597.272	bb			0.0472	94.46	-5.54	190.554	2.87
WCL100128-07CRI	Perchlorate-101	101 > 85	2.59	556.296	556.296	bb			0.0489	97.88	-2.12	73.002	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.58	13796.101	13796.101	bb			0.4744	94.87	-5.13	8492.1...	

# QUALITY CONTROL



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: EPA 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 947198  
 Extraction Type: Filter/DAI  
 Client Sample No. MB  
 Date Received: 30-JAN-10  
 GEL Job No (SDG): 10-1433-1  
 GEL Sample ID: 1202028960  
 Date Filtered: 30-JAN-10  
 Injection Volume (uL): 20  
 %Solids:

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 18:02	per0131046a
	Perchlorate Isotope Ratio						1	31-JAN-10 18:02	per0131046a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 18:02	per0131046a
	Perchlorate-O(18)			0.462	ug/L		1	31-JAN-10 18:02	per0131046a

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

\*Concentration =

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

Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131046a

Date: 31-Jan-2010

Time: 18:02:41

ID: 1202028960

Vial: 2:1A

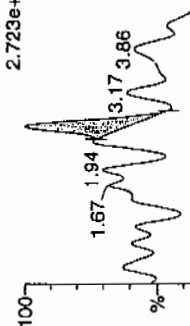
02-31-10

1202028960 | 947199 | 1202028960 | MB | 11

02-31-10

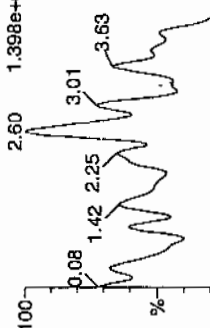
Perchlorate

MRM of 3 channels, ES-  
99 > 83  
2.723e+002



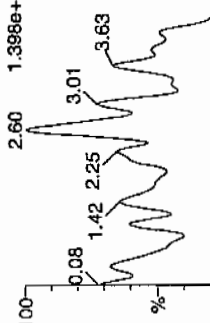
Perchlorate

MRM of 3 channels, ES-  
101 > 85  
1.398e+002



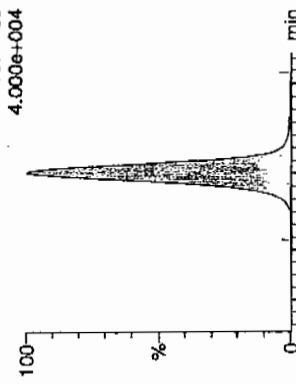
Perchlorate-101

MRM of 3 channels, ES-  
101 > 85  
1.398e+002



Perchlorate-O(18)

MRM of 3 channels, ES-  
107 > 89  
4.000e+004



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	%Rec	%Dev	S/N	Ion Ratio
1202028960	Perchlorate	99 > 83	2.65	22.511	22.511	bb			0.0007	8.744	0.00	
1202028960	Perchlorate-101	101 > 85										
1202028960	Perchlorate-O(18)	107 > 89	2.63	13448.378	13448.378	bb			0.4624	92.48	-7.52	3729.0...

## Perchlorate Analysis Data Sheet

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 247198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

LCS

Date Received: 30-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 1202028961

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.199	ug/L	J	1	31-JAN-10 18:10	per0131047a
	Perchlorate Isotope Ratio			3.1			1	31-JAN-10 18:10	per0131047a
14797-73-0	Perchlorate-101	.05	.2	0.191	ug/L	J	1	31-JAN-10 18:10	per0131047a
	Perchlorate-O(18)			0.455	ug/L		1	31-JAN-10 18:10	per0131047a

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

\*Concentration =

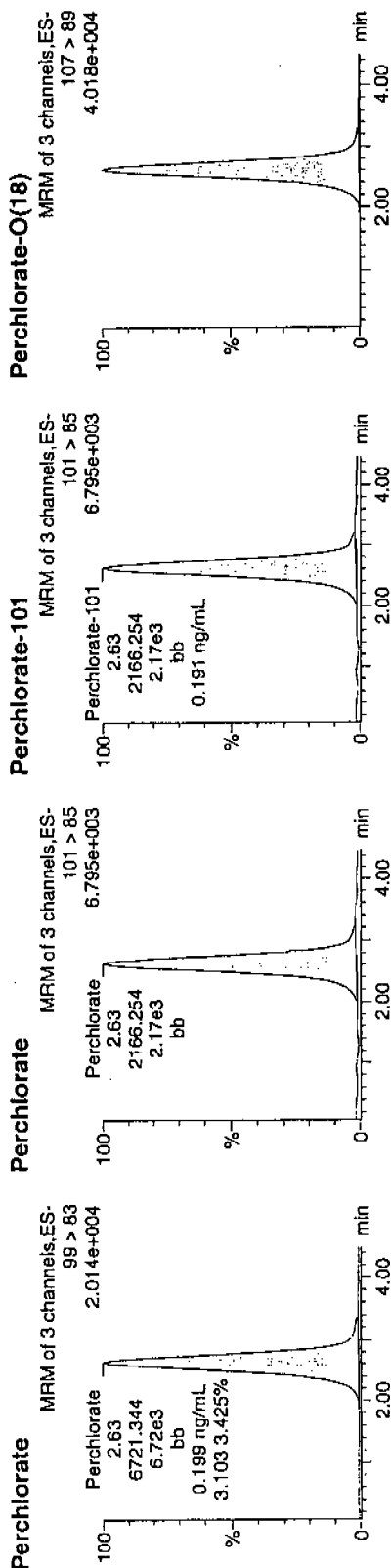
Instrument Value X Concentrated Extract Volume X 1  
Aliquot %Solids

Quantify Sample Report MassLynx 4.0 SP4  
 The GEL Group, LLC Analyst: Charters W. Wilson  
 Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld  
 Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
 Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131047a  
 Date: 31-Jan-2010  
 Time: 18:10:24  
 ID: 1202028961  
 Vial: 2:1,B

6721.344  
 01-01-10

6721.344  
 1202028961



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028961	Perchlorate	99 > 83	2.63	6721.344	6721.344	bb			0.1987	99.37	-0.63	1459.2...	3.10
1202028961	Perchlorate-101	101 > 85	2.63	2166.254	2166.254	bb			0.1906	95.29	-4.71	575.994	
1202028961	Perchlorate-O(18)	107 > 89	2.61	13238.314	13238.314	bb			0.4552	91.04	-8.96	2651.3...	

$$\frac{6721.344}{33819.9} = 0.1987$$

Annw 02/03/10

# MISCELLANEOUS DATA

# Prep Logbook

## Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 947198 Verified by: Lab SOP: GL-OA-E-067 REV# 6  
 Analyst: Jareth Shirley Instrument: MicroMass Quatro Ultima  
 Method: SW846 6850 Modified

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1302038960 MIB	30-JAN-2010 12:08:58	10	10	1
1302038961 LCS	30-JAN-2010 12:08:58	10	10	1
245601001	30-JAN-2010 12:08:58	10	10	1
245614001	30-JAN-2010 12:08:58	10	10	1
1302038962 MS (245614001)	30-JAN-2010 12:08:58	10	10	1
1302038963 MSD (245614001)	30-JAN-2010 12:08:58	10	10	1
245614002	30-JAN-2010 12:08:58	10	10	1
245618007	30-JAN-2010 12:08:58	10	10	1
245619001	30-JAN-2010 12:08:58	10	10	1
245625001	30-JAN-2010 12:08:58	10	10	1
245676002	30-JAN-2010 12:08:58	10	10	1
1302038964 MS (245676002)	30-JAN-2010 12:08:58	10	10	1
1302038965 MSD (245676002)	30-JAN-2010 12:08:58	10	10	1
245676005	30-JAN-2010 12:08:58	10	10	1
245681001	30-JAN-2010 12:08:58	10	10	1
245681002	30-JAN-2010 12:08:58	10	10	1
245690001	30-JAN-2010 12:08:58	10	10	1
245690002	30-JAN-2010 12:08:58	10	10	1
245777001	30-JAN-2010 12:08:58	10	10	1
245777005	30-JAN-2010 12:08:58	10	10	1
245807001	30-JAN-2010 12:08:58	10	10	1
245807002	30-JAN-2010 12:08:58	10	10	1
1302038966 ICS	30-JAN-2010 12:08:58	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
ICS	1302038966	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL	Desulting cartridges used: 090406-1-Ba & 091130-1-H
LCS	1302038961	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL	
MS	1302038962	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL	
MS	1302038964	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL	
MSD	1302038963	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL	
MSD	1302038965	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL	
RGNT	ALL	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1236402	10	mL	
RGNT	ALL	O2SI HPLC Grade Water	1246105	10	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 01/31/10  
 Extr. Injection Volume: 20uL  
 Sequence Number: per013110a  
 Initial Calibration Date: 01/31/10

Method: EPA 6850-Modified  
 Int. Std.: UCL100122-01  
 Mobile Phase Lot#: 1254342, 1246195  
 Standard-Samp Reagent Lot#: 1233976

Reviewed BY: *hmc*  
 Date: *2/23/10*  
 SOP: GL-OA-E-067 Rev.6  
 Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0131001a	IPB001	CWW	1/31/2010 12:23			1		USE	B
per0131002a	IPB001	CWW	1/31/2010 12:30			1		USE	B
per0131003a	WCLICAL-01	CWW	1/31/2010 12:38			1		USE	I
per0131004a	WCLICAL-02	CWW	1/31/2010 12:45			1		USE	I
per0131005a	WCLICAL-03	CWW	1/31/2010 12:53			1		USE	I
per0131006a	WCLICAL-04	CWW	1/31/2010 13:00			1		USE	I
per0131007a	WCLICAL-05	CWW	1/31/2010 13:08			1		USE	I
per0131008a	IPB002	CWW	1/31/2010 13:15			1		USE	B
per0131009a	WCLICV	CWW	1/31/2010 13:23			1		USE	C
per0131010a	IPB003	CWW	1/31/2010 13:31			1		USE	B
per0131011a	WCLCRI	CWW	1/31/2010 13:38			1		USE	C
per0131012a	1202023105	CWW	1/31/2010 13:46	944723	VARIOUS	1	LANL	USE	S
per0131013a	1202023106	CWW	1/31/2010 13:53	944723	VARIOUS	1	LANL	USE	S
per0131014a	1202023109	CWW	1/31/2010 14:01	944723	VARIOUS	1	LANL	USE	S
per0131015a	244921001	CWW	1/31/2010 14:08	944723	10-1288	1	LANL	USE	S
per0131016a	244921002	CWW	1/31/2010 14:16	944723	10-1288	1	LANL	USE	S
per0131017a	244921003	CWW	1/31/2010 14:23	944723	10-1288	1	LANL	USE	S
per0131018a	244921004	CWW	1/31/2010 14:31	944723	10-1288	1	LANL	USE	S
per0131019a	244921005	CWW	1/31/2010 14:38	944723	10-1288	1	LANL	USE	S
per0131020a	244921006	CWW	1/31/2010 14:46	944723	10-1288	1	LANL	USE	S
per0131021a	WCLCCV	CWW	1/31/2010 14:54			1	LANL	USE	C
per0131022a	IPB004	CWW	1/31/2010 15:01			1	LANL	USE	B
per0131023a	WCLCRI	CWW	1/31/2010 15:09			1	LANL	USE	C
per0131024a	244921007	CWW	1/31/2010 15:16	944723	10-1288	1	LANL	USE	S
per0131025a	244921008	CWW	1/31/2010 15:24	944723	10-1288	1	LANL	USE	S
per0131026a	244921009	CWW	1/31/2010 15:31	944723	10-1288	1	LANL	USE	S
per0131027a	244921010	CWW	1/31/2010 15:39	944723	10-1288	1	LANL	USE	S
per0131028a	245134001	CWW	1/31/2010 15:46	944723	10-1300	1	LANL	USE	S
per0131029a	1202023107	CWW	1/31/2010 15:54	944723	10-1300	1	LANL	USE	S

per0131030a	1202023108	CWW	1/31/2010 16:01	944723	10-1300	1	LANL	USE	S
per0131031a	245134002	CWW	1/31/2010 16:09	944723	10-1300	1	LANL	USE	S
per0131032a	WCLCCV	CWW	1/31/2010 16:17			1	LANL	USE	C
per0131033a	IPB005	CWW	1/31/2010 16:24			1	LANL	USE	B
per0131034a	WCLCRI	CWW	1/31/2010 16:32			1	LANL	USE	C
per0131035a	245134003	CWW	1/31/2010 16:39	944723	10-1300	1	LANL	USE	S
per0131036a	245134004	CWW	1/31/2010 16:47	944723	10-1300	1	LANL	USE	S
per0131037a	245134005	CWW	1/31/2010 16:54	944723	10-1300	1	LANL	USE	S
per0131038a	245134006	CWW	1/31/2010 17:02	944723	10-1300	1	LANL	USE	S
per0131039a	245134007	CWW	1/31/2010 17:09	944723	10-1300	1	LANL	USE	S
per0131040a	245134008	CWW	1/31/2010 17:17	944723	10-1300	1	LANL	USE	S
per0131041a	245134009	CWW	1/31/2010 17:24	944723	10-1300	1	LANL	USE	S
per0131042a	245134010	CWW	1/31/2010 17:32	944723	10-1300	1	LANL	USE	S
per0131043a	WCLCCV	CWW	1/31/2010 17:40			1	LANL	USE	C
per0131044a	IPB006	CWW	1/31/2010 17:47			1	LANL	USE	B
per0131045a	WCLCRI	CWW	1/31/2010 17:55			1	LANL	USE	C
per0131046a	1202028960	CWW	1/31/2010 18:02	947199	VARIOUS	1	LANL	USE	S
per0131047a	1202028961	CWW	1/31/2010 18:10	947199	VARIOUS	1	LANL	USE	S
per0131048a	1202028966	CWW	1/31/2010 18:17	947199	VARIOUS	1	LANL	USE	S
per0131049a	245601001	CWW	1/31/2010 18:25	947199	10-1409	1	LANL	USE	S
per0131050a	245614001	CWW	1/31/2010 18:32	947199	10-1417-1	1	LANL	USE	S
per0131051a	1202028962	CWW	1/31/2010 18:40	947199	10-1417-1	1	LANL	USE	S
per0131052a	1202028963	CWW	1/31/2010 18:48	947199	10-1417-1	1	LANL	USE	S
per0131053a	245614002	CWW	1/31/2010 18:55	947199	10-1417-1	1	LANL	USE	S
per0131054a	WCLCCV	CWW	1/31/2010 19:03			1	LANL	USE	C
per0131055a	IPB007	CWW	1/31/2010 19:10			1	LANL	USE	B
per0131056a	WCLCRI	CWW	1/31/2010 19:18			1	LANL	USE	C
per0131057a	245618007	CWW	1/31/2010 19:25	947199	10-1422	1	LANL	USE	S
per0131058a	245619001	CWW	1/31/2010 19:33	947199	10-1423	1	LANL	USE	S
per0131059a	245625001	CWW	1/31/2010 19:41	947199	10-1425	1	LANL	USE	S
per0131060a	245676002	CWW	1/31/2010 19:48	947199	10-1446	1	LANL	USE	S
per0131061a	1202028964	CWW	1/31/2010 19:56	947199	10-1446	1	LANL	USE	S
per0131062a	1202028965	CWW	1/31/2010 20:03	947199	10-1446	1	LANL	USE	S
per0131063a	245676005	CWW	1/31/2010 20:11	947199	10-1446	1	LANL	USE	S
per0131064a	245681001	CWW	1/31/2010 20:18	947199	10-1450	1	LANL	USE	S
per0131065a	WCLCCV	CWW	1/31/2010 20:26			1	LANL	USE	C
per0131066a	IPB008	CWW	1/31/2010 20:34			1	LANL	USE	B



per0131067a	WCLCRI	CWW	1/31/2010 20:41	947199	10-1450	1	LANL	USE	C
per0131068a	245681002	CWW	1/31/2010 20:49	947199	10-1433-1	1	LANL	USE	S
per0131069a	245690001	CWW	1/31/2010 20:57	947199	10-1433-1	1	LANL	USE	S
per0131070a	245690002	CWW	1/31/2010 21:04	947199	10-1433-1	1	LANL	USE	S
per0131071a	245777001	CWW	1/31/2010 21:12	947199	10-1458	1	LANL	DUSE-DL	S
per0131072a	245777005	CWW	1/31/2010 21:19	947199	10-1458	1	LANL	DUSE-DL	S
per0131073a	245807001	CWW	1/31/2010 21:27	947199	10-1474-1	1	LANL	DUSE-RA	S
per0131074a	245807002	CWW	1/31/2010 21:34	947199	10-1474-1	1	LANL	USE	S
per0131075a	IPB009	CWW	1/31/2010 21:42	Screen	Inhouse	1	GEL	USE	B
per0131076a	1262643 Suppr	CWW	1/31/2010 21:50			1		DUSE	S
per0131077a	WCLCCV	CWW	1/31/2010 21:57			1		USE	C
per0131078a	IPB010	CWW	1/31/2010 22:05			1		USE	B
per0131079a	WCLCRI	CWW	1/31/2010 22:13			1		USE	C

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
 Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131051a

Date: 31-Jan-2010

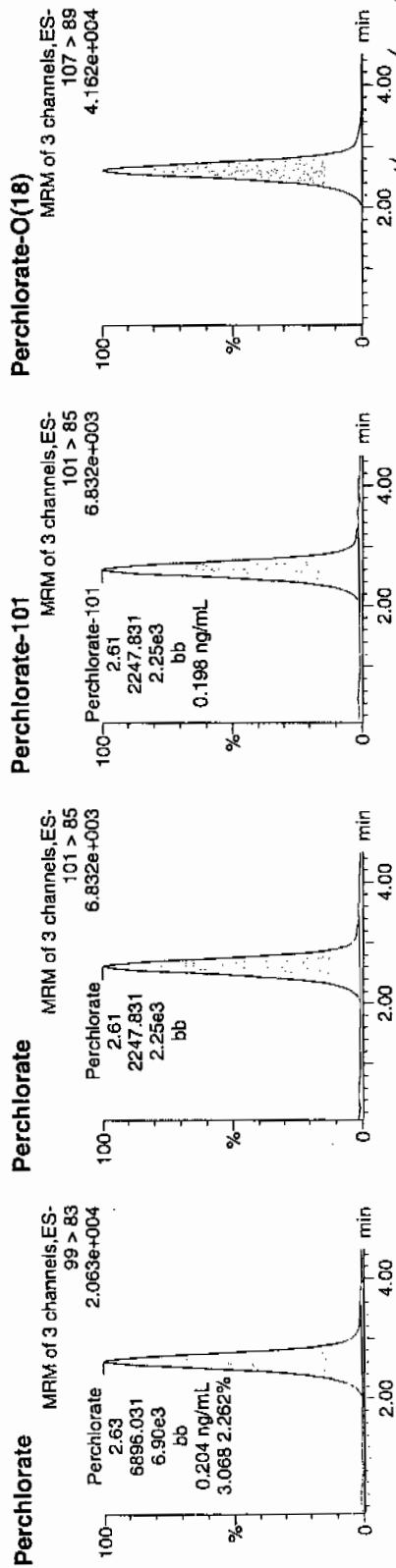
Time: 18:40:29

ID: 1202028962

Vial: 2:1,F

01-01-10

1202028962 | 947151 | 1202028962 | MS | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028962	Perchlorate	99 > 83	2.63	6896.031	6896.031	bb			0.2039	101.95	1.95	499.072	3.07
1202028962	Perchlorate-101	101 > 85	2.61	2247.831	2247.831	bb			0.1978	98.88	-1.12	1131.5...	
1202028962	Perchlorate-O(18)	107 > 89	2.61	13826.360	13826.360	bb			0.4754	95.08	-4.92	4176.2...	

**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time  
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131052a

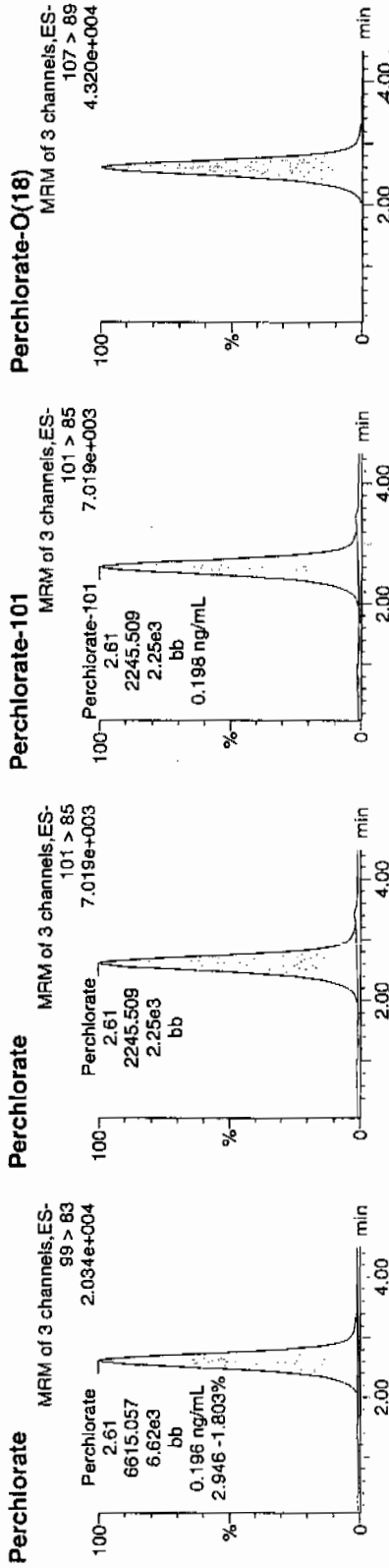
Date: 31-Jan-2010

Time: 18:48:01

ID: 1202028963

Vial: 2:2,A

LAN-1947149 | 123 | HSD | 1 |  
01-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028963	Perchlorate	99 > 83	2.61	6615.057	6615.057	bb			0.1956	97.80	-2.20	747.719	2.95
1202028963	Perchlorate-101	101 > 85	2.61	2245.509	2245.509	bb			0.1975	98.77	-1.23	234.767	
1202028963	Perchlorate-O(18)	107 > 89	2.60	14081.118	14081.118	bb			0.4842	96.83	-3.17	1719.1...	

### Isotope Ratio Criteria

#### Isotope Ratio $^{35}\text{Cl}/^{37}\text{Cl}$

2.31-3.85

### Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

# Metals Analysis

# Case Narrative

**Metals Fractional Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1433**

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
245688001	RE15-10-7883
245688002	RE15-10-7884
245688003	RE15-10-7932
245688004	RE15-10-7931
245688005	RE15-10-7938
245688006	RE15-10-7933
245688007	RE15-10-7939
245688008	RE15-10-7936
245688009	RE15-10-7935
245688010	RE15-10-7934
245688011	RE15-10-7940
245688012	RE15-10-7937
245688013	RE15-10-8056
245688014	RE15-10-8057
1202030846	Method Blank (MB) ICP
1202046765	Method Blank (MB) ICP
1202030851	Laboratory Control Sample (LCS)
1202046766	Laboratory Control Sample (LCS)
1202030848	245688001(RE15-10-7883L) Serial Dilution (SD)
1202030847	245688001(RE15-10-7883D) Sample Duplicate (DUP)

1202030849	245688001(RE15-10-7883S) Matrix Spike (MS)
1202030850	245688001(RE15-10-7883SD) Matrix Spike Duplicate (MSD)
1202030852	Method Blank (MB) ICP-MS
1202030857	Laboratory Control Sample (LCS)
1202030854	245688001(RE15-10-7883L) Serial Dilution (SD)
1202030853	245688001(RE15-10-7883D) Sample Duplicate (DUP)
1202030855	245688001(RE15-10-7883S) Matrix Spike (MS)
1202030856	245688001(RE15-10-7883SD) Matrix Spike Duplicate (MSD)
1202029993	Method Blank (MB) CVAA
1202029994	Laboratory Control Sample (LCS)
1202029997	245688001(RE15-10-7883L) Serial Dilution (SD)
1202029995	245688001(RE15-10-7883D) Sample Duplicate (DUP)
1202029996	245688001(RE15-10-7883S) Matrix Spike (MS)
1202029998	245688001(RE15-10-7883SD) Matrix Spike Duplicate (MSD)

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

#### **Method/Analysis Information**

<b>Analytical Batch:</b>	948032, 954751, 948035 and 947654
<b>Prep Batch :</b>	948031, 954750, 948033 and 947653
<b>Standard Operating Procedures:</b>	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
<b>Analytical Method:</b>	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
<b>Prep Method :</b>	SW846 3050B and SW846 7471A Prep

#### **Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.



## **System Configuration**

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

## **Calibration Information**

### **Instrument Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG).

### **CRDL Requirements**

All CRDL standard(s) met the referenced advisory control limits with the exception of mercury, which recovered outside of the advisory limits of 70-130%.

### **ICSA/ICSAB Statement**

All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

### **Continuing Calibration Blank (CCB) Requirements**

All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

### **Continuing Calibration Verification (CCV) Requirements**

All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

## **Quality Control (QC) Information**

### **Method Blank (MB) Statement**

The MBs analyzed with this SDG met the acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**Quality Control (QC) Sample Statement**

The following sample was selected as the quality control (QC) sample for this SDG: 245688001.

**Matrix Spike (MS) Recovery Statement**

The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of magnesium, potassium and selenium, as indicated by the "N" qualifiers.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of calcium and selenium, as indicated by the "N" qualifiers.

**MS/MSD Relative Percent Difference (RPD) Statement**

The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of calcium and selenium, as indicated by the "\*" qualifiers.

**Duplicate Relative Percent Difference (RPD) Statement**

The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes did not meet these requirements with the exception of aluminum, barium, calcium, cobalt, copper, lead, magnesium, manganese and potassium, as indicated by the "\*" qualifiers.

**Serial Dilution % Difference Statement**

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

**Technical Information****Holding Time Specifications**

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

**Sample Dilutions**

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples 245688009, 245688012 and 245688013 required dilutions for uranium in order to bring over range concentrations within the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

**Preparation Information**

The samples in this SDG were prepared exactly according to the cited SOP.

**Miscellaneous Information****Electronic Packaging Comment**

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

**Data Exception (DER) Documentation**

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 791250, 794447 and 795211. A copy of each DER is included in the Miscellaneous Data section of this package.

**Additional Comments**

Additional comments were not required for this SDG.

**Certification Statement**

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

**Review Validation:**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Kristen Parsons Date: 2/24/10

# Sample Data Summary

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688001

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7883

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 69

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5870000	ug/Kg	*	9750	28700	28700	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-36-0	Antimony	1580	ug/Kg		473	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-38-2	Arsenic	1.56	mg/kg		0.281	1.41	1.41	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-39-3	Barium	77600	ug/Kg	*	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-41-7	Beryllium	0.549	mg/kg		0.0281	0.141	0.141	2	MS	SKJ	02/24/10 12:31	100224-4	948035
7440-43-9	Cadmium	717	ug/Kg	U	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-70-2	Calcium	1290000	ug/Kg	*N	11500	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-47-3	Chromium	12700	ug/Kg		215	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-48-4	Cobalt	6090	ug/Kg	*	215	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-50-8	Copper	10100	ug/Kg	*	424	1410	1410	1	P	HSC	02/19/10 18:06	021910A-2	954751
7439-89-6	Iron	10500000	ug/Kg		11500	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-92-1	Lead	14300	ug/Kg	*	358	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-95-4	Magnesium	1140000	ug/Kg	*N	12200	43000	43000	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-96-5	Manganese	406000	ug/Kg	*	287	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-97-6	Mercury	17.8	ug/kg		5.53	16.3	16.3	1	AV	JXL1	02/16/10 10:45	021610S2-5	947654
7440-02-0	Nickel	4.82	mg/kg		0.141	0.562	0.562	2	MS	SKJ	02/24/10 12:31	100224-4	948035
7440-09-7	Potassium	1190000	ug/Kg	*N	9180	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7782-49-2	Selenium	1.41	mg/kg	U*N	0.703	1.41	1.41	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-22-4	Silver	717	ug/Kg	U	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-23-5	Sodium	53800	ug/Kg		10000	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-28-0	Thallium	0.229	mg/kg	J	0.0844	0.281	0.281	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-61-1	Uranium	7.58	mg/kg		0.0186	0.0562	0.0562	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-62-2	Vanadium	17600	ug/Kg		141	707	707	1	P	HSC	02/19/10 18:06	021910A-2	954751
7440-66-6	Zinc	29800	ug/Kg		473	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.535	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.506	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.516	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.513	g	50	mL	02/18/10	BCD1

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688002

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7884

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 94.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4780000	ug/Kg	*	6930	20400	20400	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-36-0	Antimony	458	ug/Kg	J	336	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-38-2	Arsenic	1.16	mg/kg		0.198	0.992	0.992	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-39-3	Barium	46200	ug/Kg	*	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-41-7	Beryllium	0.427	mg/kg		0.0198	0.0992	0.0992	2	MS	SKJ	02/24/10 12:44	100224-4	948035
7440-43-9	Cadmium	509	ug/Kg	U	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-70-2	Calcium	700000	ug/Kg	*N	8150	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-47-3	Chromium	11100	ug/Kg		153	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-48-4	Cobalt	3490	ug/Kg	*	153	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-50-8	Copper	3450	ug/Kg	*	317	1060	1060	1	P	HSC	02/19/10 18:31	021910A-2	954751
7439-89-6	Iron	11100000	ug/Kg		8150	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-92-1	Lead	5710	ug/Kg	*	255	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-95-4	Magnesium	679000	ug/Kg	*N	8660	30600	30600	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-96-5	Manganese	272000	ug/Kg	*	204	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-97-6	Mercury	16.3	ug/kg		4.01	11.8	11.8	1	AV	JXLI	02/16/10 10:55	021610S2-5	947654
7440-02-0	Nickel	5.16	mg/kg		0.0992	0.397	0.397	2	MS	SKJ	02/24/10 12:44	100224-4	948035
7440-09-7	Potassium	651000	ug/Kg	*N	6520	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7782-49-2	Selenium	0.992	mg/kg	U*N	0.496	0.992	0.992	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-22-4	Silver	509	ug/Kg	U	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-23-5	Sodium	180000	ug/Kg		7130	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-28-0	Thallium	0.0649	mg/kg	J	0.0595	0.198	0.198	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-61-1	Uranium	0.598	mg/kg		0.0131	0.0397	0.0397	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-62-2	Vanadium	5730	ug/Kg		106	528	528	1	P	HSC	02/19/10 18:31	021910A-2	954751
7440-66-6	Zinc	51200	ug/Kg		336	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471 A Prep	0.54	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.521	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.535	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688003

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7932

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 90.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6700000	ug/Kg	*	7410	21800	21800	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-36-0	Antimony	868	ug/Kg	J	360	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-38-2	Arsenic	1.26	mg/kg		0.193	0.963	0.963	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-39-3	Barium	77700	ug/Kg	*	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-41-7	Beryllium	0.734	mg/kg		0.0193	0.0963	0.0963	2	MS	SKJ	02/24/10 12:46	100224-4	948035
7440-43-9	Cadmium	545	ug/Kg	U	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-70-2	Calcium	1800000	ug/Kg	*N	8720	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-47-3	Chromium	18400	ug/Kg		164	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-48-4	Cobalt	3520	ug/Kg	*	164	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-50-8	Copper	4150	ug/Kg	*	277	922	922	1	P	HSC	02/19/10 18:35	021910A-2	954751
7439-89-6	Iron	12100000	ug/Kg		8720	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-92-1	Lead	5670	ug/Kg	*	273	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-95-4	Magnesium	1040000	ug/Kg	*N	9270	32700	32700	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-96-5	Manganese	327000	ug/Kg	*	218	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-97-6	Mercury	16.9	ug/kg		4.34	12.8	12.8	1	AV	JXL1	02/16/10 10:57	021610S2-5	947654
7440-02-0	Nickel	5.42	mg/kg		0.0963	0.385	0.385	2	MS	SKJ	02/24/10 12:46	100224-4	948035
7440-09-7	Potassium	841000	ug/Kg	*N	6980	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7782-49-2	Selenium	0.963	mg/kg	U*N	0.481	0.963	0.963	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-22-4	Silver	545	ug/Kg	U	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-23-5	Sodium	203000	ug/Kg		7630	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-28-0	Thallium	0.0724	mg/kg	J	0.0578	0.193	0.193	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-61-1	Uranium	0.938	mg/kg		0.0127	0.0385	0.0385	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-62-2	Vanadium	7970	ug/Kg		92.2	461	461	1	P	HSC	02/19/10 18:35	021910A-2	954751
7440-66-6	Zinc	28500	ug/Kg		360	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.518	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.505	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.572	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.597	g	50	mL	02/18/10	BCD1



**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688004

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7931

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9650000	ug/Kg	*	8200	24100	24100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-36-0	Antimony	959	ug/Kg	J	398	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-38-2	Arsenic	1.67	mg/kg		0.23	1.15	1.15	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-39-3	Barium	105000	ug/Kg	*	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-41-7	Beryllium	0.614	mg/kg		0.023	0.115	0.115	2	MS	SKJ	02/24/10 12:48	100224-4	948035
7440-43-9	Cadmium	603	ug/Kg	U	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-70-2	Calcium	1590000	ug/Kg	*N	9650	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-47-3	Chromium	19900	ug/Kg		181	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-48-4	Cobalt	3390	ug/Kg	*	181	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-50-8	Copper	7780	ug/Kg	*	362	1210	1210	1	P	HSC	02/19/10 18:39	021910A-2	954751
7439-89-6	Iron	11100000	ug/Kg		9650	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-92-1	Lead	9730	ug/Kg	*	301	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-95-4	Magnesium	1420000	ug/Kg	*N	10200	36200	36200	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-96-5	Manganese	321000	ug/Kg	*	241	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-97-6	Mercury	17.3	ug/kg		4.23	12.5	12.5	1	AV	JXL1	02/16/10 10:59	021610S2-5	947654
7440-02-0	Nickel	5.76	mg/kg		0.115	0.46	0.46	2	MS	SKJ	02/24/10 12:48	100224-4	948035
7440-09-7	Potassium	1190000	ug/Kg	*N	7720	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7782-49-2	Selenium	1.15	mg/kg	U*N	0.575	1.15	1.15	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-22-4	Silver	603	ug/Kg	U	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-23-5	Sodium	76000	ug/Kg		8440	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-28-0	Thallium	0.108	mg/kg	J	0.069	0.23	0.23	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-61-1	Uranium	2.26	mg/kg		0.0152	0.046	0.046	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-62-2	Vanadium	13000	ug/Kg		121	603	603	1	P	HSC	02/19/10 18:39	021910A-2	954751
7440-66-6	Zinc	25900	ug/Kg		398	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.581	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.524	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.5	g	50	mL	02/18/10	BCD1

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688005

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7938

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1910000	ug/Kg	*	6980	20500	20500	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-36-0	Antimony	410	ug/Kg	J	339	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-38-2	Arsenic	0.672	mg/kg	J	0.193	0.966	0.966	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-39-3	Barium	35000	ug/Kg	*	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-41-7	Beryllium	0.358	mg/kg		0.0193	0.0966	0.0966	2	MS	SKJ	02/24/10 12:50	100224-4	948035
7440-43-9	Cadmium	513	ug/Kg	U	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-70-2	Calcium	396000	ug/Kg	*N	8210	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-47-3	Chromium	41300	ug/Kg		154	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-48-4	Cobalt	1310	ug/Kg	*	154	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-50-8	Copper	2730	ug/Kg	*	310	1030	1030	1	P	HSC	02/19/10 18:42	021910A-2	954751
7439-89-6	Iron	8030000	ug/Kg		8210	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-92-1	Lead	3020	ug/Kg	*	257	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-95-4	Magnesium	352000	ug/Kg	*N	8730	30800	30800	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-96-5	Manganese	223000	ug/Kg	*	205	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-97-6	Mercury	14.9	ug/kg		4.11	12.1	12.1	1	AV	JXL1	02/16/10 11:05	021610S2-5	947654
7440-02-0	Nickel	5.53	mg/kg		0.0966	0.386	0.386	2	MS	SKJ	02/24/10 12:50	100224-4	948035
7440-09-7	Potassium	320000	ug/Kg	*N	6570	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7782-49-2	Selenium	0.966	mg/kg	U*N	0.483	0.966	0.966	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-22-4	Silver	513	ug/Kg	U	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-23-5	Sodium	126000	ug/Kg		7190	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-28-0	Thallium	0.193	mg/kg	U	0.0579	0.193	0.193	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-61-1	Uranium	0.593	mg/kg		0.0127	0.0386	0.0386	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-62-2	Vanadium	4020	ug/Kg		103	517	517	1	P	HSC	02/19/10 18:42	021910A-2	954751
7440-66-6	Zinc	41300	ug/Kg		339	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.515	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.505	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.537	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.501	g	50	mL	02/18/10	BCD1

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688006

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7933

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3570000	ug/Kg	*	7660	22500	22500	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-36-0	Antimony	627	ug/Kg	J	372	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-38-2	Arsenic	1.59	mg/kg		0.229	1.15	1.15	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-39-3	Barium	39900	ug/Kg	*	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-41-7	Beryllium	0.520	mg/kg		0.0229	0.115	0.115	2	MS	SKJ	02/24/10 12:56	100224-4	948035
7440-43-9	Cadmium	563	ug/Kg	U	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-70-2	Calcium	642000	ug/Kg	*N	9010	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-47-3	Chromium	5380	ug/Kg		169	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-48-4	Cobalt	2720	ug/Kg	*	169	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-50-8	Copper	10400	ug/Kg	*	354	1180	1180	1	P	HSC	02/19/10 18:46	021910A-2	954751
7439-89-6	Iron	6280000	ug/Kg		9010	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-92-1	Lead	6900	ug/Kg	*	282	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-95-4	Magnesium	651000	ug/Kg	*N	9580	33800	33800	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-96-5	Manganese	177000	ug/Kg	*	225	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-97-6	Mercury	9.04	ug/kg	J	4.6	13.5	13.5	1	AV	JXL1	02/16/10 11:07	021610S2-5	947654
7440-02-0	Nickel	4.99	mg/kg		0.115	0.459	0.459	2	MS	SKJ	02/24/10 12:56	100224-4	948035
7440-09-7	Potassium	691000	ug/Kg	*N	7210	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7782-49-2	Selenium	1.15	mg/kg	U*N	0.574	1.15	1.15	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-22-4	Silver	563	ug/Kg	U	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-23-5	Sodium	26300	ug/Kg	J	7890	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-28-0	Thallium	0.132	mg/kg	J	0.0688	0.229	0.229	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-61-1	Uranium	13.8	mg/kg		0.0151	0.0459	0.0459	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-62-2	Vanadium	19400	ug/Kg		118	590	590	1	P	HSC	02/19/10 18:46	021910A-2	954751
7440-66-6	Zinc	13100	ug/Kg		372	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.559	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.559	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.549	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.534	g	50	mL	02/18/10	BCD1

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688007

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7939

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6600000	ug/Kg	*	8410	24700	24700	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-36-0	Antimony	884	ug/Kg	J	408	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-38-2	Arsenic	3.28	mg/kg		0.246	1.23	1.23	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-39-3	Barium	82600	ug/Kg	*	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-41-7	Beryllium	1.12	mg/kg		0.0246	0.123	0.123	2	MS	SKJ	02/24/10 12:58	100224-4	948035
7440-43-9	Cadmium	618	ug/Kg	U	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-70-2	Calcium	1050000	ug/Kg	*N	9890	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-47-3	Chromium	21100	ug/Kg		185	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-48-4	Cobalt	5780	ug/Kg	*	185	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-50-8	Copper	23100	ug/Kg	*	363	1210	1210	1	P	HSC	02/19/10 18:50	021910A-2	954751
7439-89-6	Iron	8380000	ug/Kg		9890	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-92-1	Lead	12700	ug/Kg	*	309	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-95-4	Magnesium	1230000	ug/Kg	*N	10500	37100	37100	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-96-5	Manganese	295000	ug/Kg	*	247	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-97-6	Mercury	30.5	ug/kg		5.14	15.1	15.1	1	AV	JXL1	02/16/10 11:09	021610S2-5	947654
7440-02-0	Nickel	12	mg/kg		0.123	0.493	0.493	2	MS	SKJ	02/24/10 12:58	100224-4	948035
7440-09-7	Potassium	1160000	ug/Kg	*N	7910	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7782-49-2	Selenium	1.23	mg/kg	U*N	0.616	1.23	1.23	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-22-4	Silver	618	ug/Kg	U	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-23-5	Sodium	85800	ug/Kg		8650	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-28-0	Thallium	0.313	mg/kg		0.0739	0.246	0.246	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-61-1	Uranium	16.5	mg/kg		0.0163	0.0493	0.0493	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-62-2	Vanadium	24700	ug/Kg		121	605	605	1	P	HSC	02/19/10 18:50	021910A-2	954751
7440-66-6	Zinc	18000	ug/Kg		408	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.521	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.531	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.533	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.543	g	50	mL	02/18/10	BCD1

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688008

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7936

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1370000	ug/Kg	*	7060	20800	20800	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-36-0	Antimony	1040	ug/Kg	U	343	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-38-2	Arsenic	0.469	mg/kg	J	0.182	0.911	0.911	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-39-3	Barium	26200	ug/Kg	*	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-41-7	Beryllium	0.279	mg/kg		0.0182	0.0911	0.0911	2	MS	SKJ	02/24/10 12:59	100224-4	948035
7440-43-9	Cadmium	519	ug/Kg	U	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-70-2	Calcium	778000	ug/Kg	*N	8300	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-47-3	Chromium	14100	ug/Kg		156	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-48-4	Cobalt	946	ug/Kg	*	156	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-50-8	Copper	6480	ug/Kg	*	308	1030	1030	1	P	HSC	02/19/10 18:53	021910A-2	954751
7439-89-6	Iron	7710000	ug/Kg		8300	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-92-1	Lead	6000	ug/Kg	*	260	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-95-4	Magnesium	323000	ug/Kg	*N	8820	31100	31100	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-96-5	Manganese	234000	ug/Kg	*	208	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-97-6	Mercury	18.8	ug/kg		3.91	11.5	11.5	1	AV	JXL1	02/16/10 11:11	021610S2-5	947654
7440-02-0	Nickel	3.79	mg/kg		0.0911	0.364	0.364	2	MS	SKJ	02/24/10 12:59	100224-4	948035
7440-09-7	Potassium	359000	ug/Kg	*N	6640	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7782-49-2	Selenium	0.911	mg/kg	U*N	0.455	0.911	0.911	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-22-4	Silver	519	ug/Kg	U	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-23-5	Sodium	137000	ug/Kg		7270	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-28-0	Thallium	0.182	mg/kg	U	0.0546	0.182	0.182	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-61-1	Uranium	1.85	mg/kg		0.012	0.0364	0.0364	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-62-2	Vanadium	6320	ug/Kg		103	513	513	1	P	HSC	02/19/10 18:53	021910A-2	954751
7440-66-6	Zinc	46700	ug/Kg		343	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.542	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.57	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.506	g	50	mL	02/18/10	BCD1

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688009

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7935

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11400000	ug/Kg	*	8610	25300	25300	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-36-0	Antimony	2520	ug/Kg		418	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-38-2	Arsenic	2.88	mg/kg		0.237	1.18	1.18	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-39-3	Barium	101000	ug/Kg	*	127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-41-7	Beryllium	2.47	mg/kg		0.0237	0.118	0.118	2	MS	SKJ	02/24/10 13:01	100224-4	948035
7440-43-9	Cadmium	633	ug/Kg	U	127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-70-2	Calcium	2220000	ug/Kg	*N	10100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-47-3	Chromium	25200	ug/Kg		190	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-48-4	Cobalt	4850	ug/Kg	*	190	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-50-8	Copper	552000	ug/Kg	*	390	1300	1300	1	P	HSC	02/19/10 19:04	021910A-2	954751
7439-89-6	Iron	13700000	ug/Kg		10100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-92-1	Lead	123000	ug/Kg	*	317	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-95-4	Magnesium	1840000	ug/Kg	*N	10800	38000	38000	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-96-5	Manganese	226000	ug/Kg	*	253	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-97-6	Mercury	17.9	ug/kg		4.98	14.7	14.7	1	AV	JXL1	02/16/10 11:13	021610S2-5	947654
7440-02-0	Nickel	8.31	mg/kg		0.118	0.473	0.473	2	MS	SKJ	02/24/10 13:01	100224-4	948035
7440-09-7	Potassium	1480000	ug/Kg	*N	8100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7782-49-2	Selenium	1.18	mg/kg	U*N	0.592	1.18	1.18	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-22-4	Silver	1680	ug/Kg		127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-23-5	Sodium	90500	ug/Kg		8860	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-28-0	Thallium	0.162	mg/kg	J	0.071	0.237	0.237	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-61-1	Uranium	141	mg/kg		0.156	0.473	0.473	20	MS	PRB	02/24/10 12:38	100224-3	948035
7440-62-2	Vanadium	22700	ug/Kg		130	651	651	1	P	HSC	02/19/10 19:04	021910A-2	954751
7440-66-6	Zinc	52900	ug/Kg		418	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.536	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.517	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.553	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688010

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7934

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8850000	ug/Kg	*	7290	21500	21500	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-36-0	Antimony	894	ug/Kg	J	354	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-38-2	Arsenic	2.18	mg/kg		0.21	1.05	1.05	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-39-3	Barium	123000	ug/Kg	*	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-41-7	Beryllium	0.699	mg/kg		0.021	0.105	0.105	2	MS	SKJ	02/24/10 13:03	100224-4	948035
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-70-2	Calcium	2620000	ug/Kg	*N	8580	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-47-3	Chromium	28300	ug/Kg		161	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-48-4	Cobalt	4420	ug/Kg	*	161	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-50-8	Copper	5240	ug/Kg	*	321	1070	1070	1	P	HSC	02/19/10 19:08	021910A-2	954751
7439-89-6	Iron	13000000	ug/Kg		8580	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-92-1	Lead	8720	ug/Kg	*	268	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-95-4	Magnesium	1740000	ug/Kg	*N	9120	32200	32200	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-96-5	Manganese	291000	ug/Kg	*	215	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-97-6	Mercury	15.8	ug/kg		3.98	11.7	11.7	1	AV	JXL1	02/16/10 11:15	021610S2-5	947654
7440-02-0	Nickel	7.26	mg/kg		0.105	0.419	0.419	2	MS	SKJ	02/24/10 13:03	100224-4	948035
7440-09-7	Potassium	1220000	ug/Kg	*N	6870	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7782-49-2	Selenium	1.05	mg/kg	U*N	0.524	1.05	1.05	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-22-4	Silver	536	ug/Kg	U	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-23-5	Sodium	325000	ug/Kg		7510	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-28-0	Thallium	0.141	mg/kg	J	0.0629	0.21	0.21	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-61-1	Uranium	1.18	mg/kg		0.0138	0.0419	0.0419	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-62-2	Vanadium	14900	ug/Kg		107	534	534	1	P	HSC	02/19/10 19:08	021910A-2	954751
7440-66-6	Zinc	28400	ug/Kg		354	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.568	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.516	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.528	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.518	g	50	mL	02/18/10	BCD1

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688011

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7940

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 95.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3920000	ug/Kg	*	6850	20100	20100	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-36-0	Antimony	927	ug/Kg	J	332	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-38-2	Arsenic	1.45	mg/kg		0.201	1	1	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-39-3	Barium	55200	ug/Kg	*	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-41-7	Beryllium	0.706	mg/kg		0.0201	0.1	0.1	2	MS	SKJ	02/24/10 13:09	100224-4	948035
7440-43-9	Cadmium	503	ug/Kg	U	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-70-2	Calcium	3040000	ug/Kg	*N	8050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-47-3	Chromium	27700	ug/Kg		151	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-48-4	Cobalt	1120	ug/Kg	*	151	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-50-8	Copper	2910	ug/Kg	*	315	1050	1050	1	P	HSC	02/19/10 19:12	021910A-2	954751
7439-89-6	Iron	7420000	ug/Kg		8050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-92-1	Lead	4870	ug/Kg	*	252	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-95-4	Magnesium	832000	ug/Kg	*N	8560	30200	30200	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-96-5	Manganese	252000	ug/Kg	*	201	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-97-6	Mercury	27	ug/kg		3.9	11.5	11.5	1	AV	JXL1	02/16/10 11:17	021610S2-5	947654
7440-02-0	Nickel	7.31	mg/kg		0.1	0.402	0.402	2	MS	SKJ	02/24/10 13:09	100224-4	948035
7440-09-7	Potassium	471000	ug/Kg	*N	6440	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7782-49-2	Selenium	1	mg/kg	U*N	0.502	1	1	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-22-4	Silver	503	ug/Kg	U	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-23-5	Sodium	292000	ug/Kg		7050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-28-0	Thallium	0.0914	mg/kg	J	0.0603	0.201	0.201	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-61-1	Uranium	0.888	mg/kg		0.0133	0.0402	0.0402	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-62-2	Vanadium	7590	ug/Kg		105	525	525	1	P	HSC	02/19/10 19:12	021910A-2	954751
7440-66-6	Zinc	22500	ug/Kg		332	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.55	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.522	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.523	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.5	g	50	mL	02/18/10	BCD1



**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688012

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7937

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9710000	ug/Kg	*	8890	26100	26100	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-36-0	Antimony	1090	ug/Kg	J	431	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-38-2	Arsenic	2.93	mg/kg		0.262	1.31	1.31	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-39-3	Barium	186000	ug/Kg	*	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-41-7	Beryllium	1.05	mg/kg		0.0262	0.131	0.131	2	MS	SKJ	02/24/10 13:11	100224-4	948035
7440-43-9	Cadmium	653	ug/Kg	U	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-70-2	Calcium	2860000	ug/Kg	*N	10500	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-47-3	Chromium	16700	ug/Kg		196	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-48-4	Cobalt	9400	ug/Kg	*	196	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-50-8	Copper	33000	ug/Kg	*	391	1300	1300	1	P	HSC	02/19/10 19:15	021910A-2	954751
7439-89-6	Iron	12700000	ug/Kg		10500	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-92-1	Lead	30500	ug/Kg	*	327	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-95-4	Magnesium	2080000	ug/Kg	*N	11100	39200	39200	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-96-5	Manganese	738000	ug/Kg	*	261	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-97-6	Mercury	31.4	ug/kg		4.93	14.5	14.5	1	AV	JXL1	02/16/10 11:19	021610S2-5	947654
7440-02-0	Nickel	9.3	mg/kg		0.131	0.524	0.524	2	MS	SKJ	02/24/10 13:11	100224-4	948035
7440-09-7	Potassium	1770000	ug/Kg	*N	8360	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7782-49-2	Selenium	1.31	mg/kg	U*N	0.655	1.31	1.31	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-22-4	Silver	653	ug/Kg	U	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-23-5	Sodium	71800	ug/Kg		9150	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-28-0	Thallium	0.208	mg/kg	J	0.0786	0.262	0.262	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-61-1	Uranium	27.7	mg/kg		0.0864	0.262	0.262	10	MS	PRB	02/24/10 12:41	100224-3	948035
7440-62-2	Vanadium	19000	ug/Kg		130	652	652	1	P	HSC	02/19/10 19:15	021910A-2	954751
7440-66-6	Zinc	35800	ug/Kg		431	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.543	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.502	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.501	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688013

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-8056

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2200000	ug/Kg	*	6750	19900	19900	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-36-0	Antimony	446	ug/Kg	J	328	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-38-2	Arsenic	0.478	mg/kg	J	0.196	0.98	0.98	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-39-3	Barium	31500	ug/Kg	*	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-41-7	Beryllium	0.318	mg/kg		0.0196	0.098	0.098	2	MS	SKJ	02/24/10 13:13	100224-4	948035
7440-43-9	Cadmium	497	ug/Kg	U	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-70-2	Calcium	998000	ug/Kg	*N	7950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-47-3	Chromium	15500	ug/Kg		149	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-48-4	Cobalt	1220	ug/Kg	*	149	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-50-8	Copper	3940	ug/Kg	*	280	933	933	1	P	HSC	02/19/10 19:19	021910A-2	954751
7439-89-6	Iron	8720000	ug/Kg		7950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-92-1	Lead	10200	ug/Kg	*	248	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-95-4	Magnesium	438000	ug/Kg	*N	8440	29800	29800	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-96-5	Manganese	214000	ug/Kg	*	199	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-97-6	Mercury	17.3	ug/kg		3.93	11.6	11.6	1	AV	JXL1	02/16/10 11:21	021610S2-5	947654
7440-02-0	Nickel	4.27	mg/kg		0.098	0.392	0.392	2	MS	SKJ	02/24/10 13:13	100224-4	948035
7440-09-7	Potassium	440000	ug/Kg	*N	6360	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7782-49-2	Selenium	0.980	mg/kg	U*N	0.49	0.98	0.98	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-22-4	Silver	497	ug/Kg	U	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-23-5	Sodium	136000	ug/Kg		6950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-28-0	Thallium	0.196	mg/kg	U	0.0588	0.196	0.196	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-61-1	Uranium	39	mg/kg		0.0647	0.196	0.196	10	MS	PRB	02/24/10 12:44	100224-3	948035
7440-62-2	Vanadium	3200	ug/Kg		93.3	466	466	1	P	HSC	02/19/10 19:19	021910A-2	954751
7440-66-6	Zinc	41900	ug/Kg		328	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.538	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.522	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.529	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.556	g	50	mL	02/18/10	BCD1

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245688014

BASIS: Dry Weight

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-8057

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: SOIL

%SOLIDS: 70

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4900000	ug/Kg	*	9690	28500	28500	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-36-0	Antimony	515	ug/Kg	J	470	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-38-2	Arsenic	1.48	mg/kg		0.24	1.2	1.2	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-39-3	Barium	61000	ug/Kg	*	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-41-7	Beryllium	0.549	mg/kg		0.024	0.12	0.12	2	MS	SKJ	02/24/10 13:14	100224-4	948035
7440-43-9	Cadmium	712	ug/Kg	U	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-70-2	Calcium	935000	ug/Kg	*N	11400	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-47-3	Chromium	9030	ug/Kg		214	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-48-4	Cobalt	4260	ug/Kg	*	214	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-50-8	Copper	11000	ug/Kg	*	339	1130	1130	1	P	HSC	02/19/10 19:23	021910A-2	954751
7439-89-6	Iron	7770000	ug/Kg		11400	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-92-1	Lead	10500	ug/Kg	*	356	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-95-4	Magnesium	928000	ug/Kg	*N	12100	42700	42700	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-96-5	Manganese	282000	ug/Kg	*	285	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-97-6	Mercury	10.2	ug/kg	J	5.02	14.8	14.8	1	AV	JXL1	02/16/10 11:23	021610S2-5	947654
7440-02-0	Nickel	4.75	mg/kg		0.12	0.48	0.48	2	MS	SKJ	02/24/10 13:14	100224-4	948035
7440-09-7	Potassium	1020000	ug/Kg	*N	9120	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7782-49-2	Selenium	1.2	mg/kg	U*N	0.601	1.2	1.2	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-22-4	Silver	712	ug/Kg	U	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-23-5	Sodium	49000	ug/Kg		9970	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-28-0	Thallium	0.113	mg/kg	J	0.0721	0.24	0.24	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-61-1	Uranium	6.15	mg/kg		0.0159	0.048	0.048	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-62-2	Vanadium	18200	ug/Kg		113	565	565	1	P	HSC	02/19/10 19:23	021910A-2	954751
7440-66-6	Zinc	20900	ug/Kg		470	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.579	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.593	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.63	g	50	mL	02/18/10	BCD1

# **Quality Control Summary**

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Antimony	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Barium	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Cadmium	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Calcium	4760	ug/L	5000	ug/L	95.2	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Chromium	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Iron	4950	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Lead	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Magnesium	5090	ug/L	5000	ug/L	101.8	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Manganese	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Potassium	2460	ug/L	2500	ug/L	98.4	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Silver	254	ug/L	250	ug/L	101.7	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Sodium	2410	ug/L	2500	ug/L	96.5	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Zinc	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Mercury	5.1	ug/L	5	ug/L	102.1	90.0 - 110.0	AV	16-FEB-10 10:31	021610S2-5
	Copper	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	19-FEB-10 16:40	021910A-2
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	19-FEB-10 16:40	021910A-2
	Arsenic	47.8	ug/L	50	ug/L	95.6	90.0 - 110.0	MS	24-FEB-10 11:08	100224-3
	Selenium	51.2	ug/L	50	ug/L	102.3	90.0 - 110.0	MS	24-FEB-10 11:08	100224-3
	Thallium	49.2	ug/L	50	ug/L	98.3	90.0 - 110.0	MS	24-FEB-10 11:08	100224-3
	Uranium	53.2	ug/L	50	ug/L	106.4	90.0 - 110.0	MS	24-FEB-10 11:08	100224-3
	Beryllium	50.7	ug/L	50	ug/L	101.3	90.0 - 110.0	MS	24-FEB-10 12:11	100224-4
	Nickel	52.5	ug/L	50	ug/L	104.9	90.0 - 110.0	MS	24-FEB-10 12:11	100224-4
CCV01										
	Aluminum	4870	ug/L	5000	ug/L	97.3	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Antimony	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Barium	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Cadmium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Calcium	4800	ug/L	5000	ug/L	96	90.0 - 110.0	P	12-FEB-10 06:01	021210-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Chromium	482	ug/L	500	ug/L	96.3	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Cobalt	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Lead	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Magnesium	4990	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Manganese	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Silver	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Sodium	9670	ug/L	10000	ug/L	96.7	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Zinc	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Mercury	4.8	ug/L	5	ug/L	96.1	80.0 - 120.0	AV	16-FEB-10 10:37	021610S2-5
	Copper	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	19-FEB-10 17:03	021910A-2
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	19-FEB-10 17:03	021910A-2
	Arsenic	47.1	ug/L	50	ug/L	94.2	90.0 - 110.0	MS	24-FEB-10 11:21	100224-3
	Selenium	49.2	ug/L	50	ug/L	98.4	90.0 - 110.0	MS	24-FEB-10 11:21	100224-3
	Thallium	48	ug/L	50	ug/L	96.1	90.0 - 110.0	MS	24-FEB-10 11:21	100224-3
	Uranium	52.9	ug/L	50	ug/L	105.8	90.0 - 110.0	MS	24-FEB-10 11:21	100224-3
	Beryllium	52	ug/L	50	ug/L	104	90.0 - 110.0	MS	24-FEB-10 12:20	100224-4
	Nickel	51.9	ug/L	50	ug/L	103.8	90.0 - 110.0	MS	24-FEB-10 12:20	100224-4
CCV02	Aluminum	4930	ug/L	5000	ug/L	98.7	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Antimony	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Barium	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Cadmium	495	ug/L	500	ug/L	99	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Calcium	4910	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Chromium	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Cobalt	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Lead	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	12-FEB-10 06:28	021210-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Manganese	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Potassium	5030	ug/L	5000	ug/L	100.6	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Silver	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Mercury	4.78	ug/L	5	ug/L	95.5	80.0 - 120.0	AV	16-FEB-10 11:01	021610S2-5
	Copper	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	19-FEB-10 17:21	021910A-2
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 - 110.0	P	19-FEB-10 17:21	021910A-2
	Arsenic	46.9	ug/L	50	ug/L	93.9	90.0 - 110.0	MS	24-FEB-10 11:54	100224-3
	Selenium	47.2	ug/L	50	ug/L	94.4	90.0 - 110.0	MS	24-FEB-10 11:54	100224-3
	Thallium	49.1	ug/L	50	ug/L	98.1	90.0 - 110.0	MS	24-FEB-10 11:54	100224-3
	Uranium	52.5	ug/L	50	ug/L	104.9	90.0 - 110.0	MS	24-FEB-10 11:54	100224-3
	Beryllium	52	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	24-FEB-10 12:28	100224-4
	Nickel	52.3	ug/L	50	ug/L	104.5	90.0 - 110.0	MS	24-FEB-10 12:28	100224-4
CCV03										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Antimony	479	ug/L	500	ug/L	95.7	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Barium	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Cadmium	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Calcium	4860	ug/L	5000	ug/L	97.2	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Chromium	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Iron	5000	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Lead	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Magnesium	5120	ug/L	5000	ug/L	102.5	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Manganese	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Sodium	9810	ug/L	10000	ug/L	98.2	90.0 - 110.0	P	12-FEB-10 07:10	021210-1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	12-FEB-10 07:10	021210-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Mercury	4.9	ug/L	5	ug/L	98.1	80.0 - 120.0	AV	16-FEB-10 11:25	021610S2-5
	Copper	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	19-FEB-10 17:52	021910A-2
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	19-FEB-10 17:52	021910A-2
	Arsenic	47.5	ug/L	50	ug/L	95.1	90.0 - 110.0	MS	24-FEB-10 12:27	100224-3
	Selenium	48.1	ug/L	50	ug/L	96.3	90.0 - 110.0	MS	24-FEB-10 12:27	100224-3
	Thallium	48.2	ug/L	50	ug/L	96.3	90.0 - 110.0	MS	24-FEB-10 12:27	100224-3
	Uranium	52.2	ug/L	50	ug/L	104.3	90.0 - 110.0	MS	24-FEB-10 12:27	100224-3
	Beryllium	52.7	ug/L	50	ug/L	105.4	90.0 - 110.0	MS	24-FEB-10 12:41	100224-4
	Nickel	51.8	ug/L	50	ug/L	103.5	90.0 - 110.0	MS	24-FEB-10 12:41	100224-4
CCV04	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Antimony	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Barium	502	ug/L	500	ug/L	100.3	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Chromium	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Cobalt	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Lead	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Manganese	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Silver	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Zinc	500	ug/L	500	ug/L	99.9	90.0 - 110.0	P	12-FEB-10 07:50	021210-1
	Copper	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	19-FEB-10 18:24	021910A-2
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	19-FEB-10 18:24	021910A-2
	Arsenic	48	ug/L	50	ug/L	96	90.0 - 110.0	MS	24-FEB-10 12:49	100224-3
	Selenium	48.9	ug/L	50	ug/L	97.8	90.0 - 110.0	MS	24-FEB-10 12:49	100224-3
	Thallium	48.2	ug/L	50	ug/L	96.5	90.0 - 110.0	MS	24-FEB-10 12:49	100224-3

SW846



**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Uranium	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	24-FEB-10 12:49	100224-3
	Beryllium	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	24-FEB-10 12:52	100224-4
	Nickel	52.1	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	24-FEB-10 12:52	100224-4
CCV05										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Antimony	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Barium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Calcium	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Iron	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Lead	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Magnesium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Manganese	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Potassium	5030	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 18:57	021910A-2
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 18:57	021910A-2
	Beryllium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	24-FEB-10 13:05	100224-4
	Nickel	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	24-FEB-10 13:05	100224-4
CCV06										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	12-FEB-10 08:54	021210-1
	Antimony	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	12-FEB-10 08:54	021210-1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	12-FEB-10 08:54	021210-1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	12-FEB-10 08:54	021210-1
	Calcium	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	12-FEB-10 08:54	021210-1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	12-FEB-10 08:54	021210-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Iron	5140	ug/L	5000	ug/L	102.8	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Lead	505	ug/L	500	ug/L	101	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Magnesium	5220	ug/L	5000	ug/L	104.5	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Manganese	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Potassium	5140	ug/L	5000	ug/L	102.9	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Silver	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Zinc	500	ug/L	500	ug/L	100	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Copper	480	ug/L	500	ug/L	96	90.0 - 110.0	P	19-FEB-10 19:26	021910A-2
	Vanadium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	19-FEB-10 19:26	021910A-2
	Beryllium	52	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	24-FEB-10 13:16	100224-4
	Nickel	52.3	ug/L	50	ug/L	104.6	90.0 - 110.0	MS	24-FEB-10 13:16	100224-4
CCV07	Aluminum	4970	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Antimony	498	ug/L	500	ug/L	99.5	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Barium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Cadmium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Iron	5000	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Lead	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Magnesium	5120	ug/L	5000	ug/L	102.5	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Potassium	5070	ug/L	5000	ug/L	101.3	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Silver	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Sodium	9870	ug/L	10000	ug/L	98.7	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	12-FEB-10 09:30	021210-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV08										
	Aluminum	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Antimony	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Barium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Cadmium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Calcium	4710	ug/L	5000	ug/L	94.1	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Chromium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Iron	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Lead	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Manganese	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Potassium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Silver	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Sodium	9630	ug/L	10000	ug/L	96.3	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
	Zinc	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	12-FEB-10 10:18	021210-1
CCV09										
	Aluminum	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Antimony	475	ug/L	500	ug/L	95	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Barium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Cadmium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Calcium	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Cobalt	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Iron	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Lead	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Manganese	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Potassium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Silver	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	12-FEB-10 10:58	021210-1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 10:58	021210-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV10	Zinc	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	12-FEB-10 10:58	021210-1
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Antimony	481	ug/L	500	ug/L	96.1	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Barium	489	ug/L	500	ug/L	97.9	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Calcium	4790	ug/L	5000	ug/L	95.9	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Iron	4930	ug/L	5000	ug/L	98.5	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Lead	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Magnesium	5110	ug/L	5000	ug/L	102.1	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Manganese	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Silver	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
CCV11	Zinc	485	ug/L	500	ug/L	97	90.0 - 110.0	P	12-FEB-10 11:41	021210-1
	Aluminum	5010	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Antimony	484	ug/L	500	ug/L	96.9	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Barium	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Cadmium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Calcium	4780	ug/L	5000	ug/L	95.6	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Chromium	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Iron	4950	ug/L	5000	ug/L	99	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Lead	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Potassium	5080	ug/L	5000	ug/L	101.6	90.0 - 110.0	P	12-FEB-10 12:25	021210-1

## METALS

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## Initial and Continuing Calibration Verification

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Silver	491	ug/L	500	ug/L	98.1	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Sodium	9930	ug/L	10000	ug/L	99.3	90.0 - 110.0	P	12-FEB-10 12:25	021210-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	12-FEB-10 12:25	021210-1

**METALS**  
**-2b-**  
**CRDL Standard for AA & ICP**

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.267	ug/L	.2	ug/L	133.5	70.0 – 130.0	AV	16-FEB-10 10:35	021610S2-5
	Thallium	1.11	ug/L	1	ug/L	110.5	70.0 – 130.0	MS	24-FEB-10 11:13	100224-3
	Arsenic	5.22	ug/L	5	ug/L	104.4	70.0 – 130.0	MS	24-FEB-10 11:13	100224-3
	Uranium	.241	ug/L	.2	ug/L	120.5	70.0 – 130.0	MS	24-FEB-10 11:13	100224-3
	Selenium	5.03	ug/L	5	ug/L	100.6	70.0 – 130.0	MS	24-FEB-10 11:13	100224-3
	Nickel	2.24	ug/L	2	ug/L	112.1	70.0 – 130.0	MS	24-FEB-10 12:15	100224-4
	Beryllium	.506	ug/L	.5	ug/L	101.2	70.0 – 130.0	MS	24-FEB-10 12:15	100224-4
PQL01										
	Iron	124	ug/L	100	ug/L	123.8	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Lead	11.5	ug/L	10	ug/L	114.9	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Magnesium	315	ug/L	300	ug/L	105.1	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Manganese	10.1	ug/L	10	ug/L	101	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Potassium	178	ug/L	150	ug/L	119	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Silver	5.01	ug/L	5	ug/L	100.2	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Sodium	308	ug/L	300	ug/L	102.6	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Antimony	8.09	ug/L	10	ug/L	80.9	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Aluminum	209	ug/L	200	ug/L	104.5	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Barium	4.84	ug/L	5	ug/L	96.7	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Cadmium	4.72	ug/L	5	ug/L	94.4	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Chromium	5.23	ug/L	5	ug/L	104.5	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Cobalt	4.83	ug/L	5	ug/L	96.6	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Zinc	10.4	ug/L	10	ug/L	103.5	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Calcium	196	ug/L	200	ug/L	98	70.0 – 130.0	P	12-FEB-10 05:45	021210-1
	Copper	10.1	ug/L	10	ug/L	100.7	70.0 – 130.0	P	19-FEB-10 16:47	021910A-2
	Vanadium	5.03	ug/L	5	ug/L	100.5	70.0 – 130.0	P	19-FEB-10 16:47	021910A-2

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 05:41	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 05:41	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 05:41	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 05:41	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 05:41	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 05:41	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 05:41	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 05:41	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 05:41	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 05:41	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 05:41	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 05:41	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 05:41	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 05:41	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 05:41	021210-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-FEB-10 10:33	021610S2-5
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 16:44	021910A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 16:44	021910A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	24-FEB-10 11:11	100224-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	24-FEB-10 11:11	100224-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	24-FEB-10 11:11	100224-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	24-FEB-10 11:11	100224-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	24-FEB-10 12:13	100224-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	24-FEB-10 12:13	100224-4
CCB01	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 06:05	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 06:05	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 06:05	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 06:05	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 06:05	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 06:05	021210-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 06:05	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 06:05	021210-1
	Lead	8.14	+/-10	J	2.5	10.0	SOL	P	12-FEB-10 06:05	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 06:05	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 06:05	021210-1
	Potassium	64.16	+/-250	J	64.0	250	SOL	P	12-FEB-10 06:05	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 06:05	021210-1
	Sodium	83.89	+/-250	J	70.0	250	SOL	P	12-FEB-10 06:05	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 06:05	021210-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-FEB-10 10:39	021610S2-5
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 17:07	021910A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:07	021910A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	24-FEB-10 11:24	100224-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	24-FEB-10 11:24	100224-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	24-FEB-10 11:24	100224-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	24-FEB-10 11:24	100224-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	24-FEB-10 12:22	100224-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	24-FEB-10 12:22	100224-4
<b>CCB02</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 06:31	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 06:31	021210-1
	Barium	1.27	+/-5	J	1.0	5.0	SOL	P	12-FEB-10 06:31	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 06:31	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 06:31	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 06:31	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 06:31	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 06:31	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 06:31	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 06:31	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 06:31	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 06:31	021210-1



**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 06:31	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 06:31	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 06:31	021210-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-FEB-10 11:03	021610S2-5
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 17:25	021910A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:25	021910A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	24-FEB-10 11:57	100224-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	24-FEB-10 11:57	100224-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	24-FEB-10 11:57	100224-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	24-FEB-10 11:57	100224-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	24-FEB-10 12:29	100224-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	24-FEB-10 12:29	100224-4
<b>CCB03</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 07:14	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 07:14	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 07:14	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 07:14	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 07:14	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 07:14	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 07:14	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 07:14	021210-1
	Lead	3.28	+/-10	J	2.5	10.0	SOL	P	12-FEB-10 07:14	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 07:14	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 07:14	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 07:14	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 07:14	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 07:14	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 07:14	021210-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-FEB-10 11:27	021610S2-5
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 17:55	021910A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:55	021910A-2

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	24-FEB-10 12:30	100224-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	24-FEB-10 12:30	100224-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	24-FEB-10 12:30	100224-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	24-FEB-10 12:30	100224-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	24-FEB-10 12:43	100224-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	24-FEB-10 12:43	100224-4
<b>CCB04</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 07:53	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 07:53	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 07:53	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 07:53	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 07:53	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 07:53	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 07:53	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 07:53	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 07:53	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 07:53	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 07:53	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 07:53	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 07:53	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 07:53	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 07:53	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 18:28	021910A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 18:28	021910A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	24-FEB-10 12:52	100224-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	24-FEB-10 12:52	100224-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	24-FEB-10 12:52	100224-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	24-FEB-10 12:52	100224-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	24-FEB-10 12:54	100224-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	24-FEB-10 12:54	100224-4

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
CCB05	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 08:26	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 08:26	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 08:26	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 08:26	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 08:26	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 08:26	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 08:26	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 08:26	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 08:26	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 08:26	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 08:26	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 08:26	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 08:26	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 08:26	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 08:26	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 19:01	021910A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:01	021910A-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	24-FEB-10 13:07	100224-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	24-FEB-10 13:07	100224-4
CCB06	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 08:58	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 08:58	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 08:58	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 08:58	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 08:58	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 08:58	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 08:58	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 08:58	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 08:58	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 08:58	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 08:58	021210-1

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 08:58	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 08:58	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 08:58	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 08:58	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 19:30	021910A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:30	021910A-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	24-FEB-10 13:18	100224-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	24-FEB-10 13:18	100224-4
<b>CCB07</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 09:33	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 09:33	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 09:33	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 09:33	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 09:33	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 09:33	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 09:33	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 09:33	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 09:33	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 09:33	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 09:33	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 09:33	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 09:33	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 09:33	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 09:33	021210-1
<b>CCB08</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 10:22	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 10:22	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 10:22	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 10:22	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 10:22	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 10:22	021210-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 10:22	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 10:22	021210-1
	Lead	3.01	+/-10	J	2.5	10.0	SOL	P	12-FEB-10 10:22	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 10:22	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 10:22	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 10:22	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 10:22	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 10:22	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 10:22	021210-1
CCB09	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 11:02	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 11:02	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:02	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:02	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 11:02	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 11:02	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 11:02	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 11:02	021210-1
	Lead	2.63	+/-10	J	2.5	10.0	SOL	P	12-FEB-10 11:02	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 11:02	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 11:02	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 11:02	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:02	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 11:02	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 11:02	021210-1
CCB10	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 11:45	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 11:45	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:45	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:45	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 11:45	021210-1

Metals  
-3a-  
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 11:45	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 11:45	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 11:45	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 11:45	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 11:45	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 11:45	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 11:45	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:45	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 11:45	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 11:45	021210-1
CCB11	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 12:29	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 12:29	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 12:29	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 12:29	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 12:29	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 12:29	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 12:29	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 12:29	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 12:29	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 12:29	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 12:29	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 12:29	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 12:29	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 12:29	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 12:29	021210-1

**METALS**  
**-3b-**  
**PREPARATION BLANK SUMMARY**

**SDG NO.** 10-1433  
**Contract:** LANL01004  
**Matrix:** SOIL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M</u>	<u>MDL</u>	<u>RDL</u>
1202029993	Mercury	3.9	ug/kg	+/-11.5	U	AV	3.9	11.5
1202030846	Zinc	446	ug/Kg	+/-963	J	P	318	963
	Aluminum	7030	ug/Kg	+/-19300	J	P	6550	19300
	Antimony	397	ug/Kg	+/-963	J	P	318	963
	Chromium	145	ug/Kg	+/-482	U	P	145	482
	Iron	13800	ug/Kg	+/-24100	J	P	7710	24100
	Magnesium	8190	ug/Kg	+/-28900	U	P	8190	28900
	Potassium	6170	ug/Kg	+/-24100	U	P	6170	24100
	Sodium	6740	ug/Kg	+/-24100	U	P	6740	24100
	Silver	96.3	ug/Kg	+/-482	U	P	96.3	482
	Manganese	318	ug/Kg	+/-963	J	P	193	963
	Lead	241	ug/Kg	+/-963	U	P	241	963
	Cobalt	145	ug/Kg	+/-482	U	P	145	482
	Calcium	7710	ug/Kg	+/-24100	U	P	7710	24100
	Cadmium	96.3	ug/Kg	+/-482	U	P	96.3	482
	Barium	108	ug/Kg	+/-482	J	P	96.3	482
1202030852	Arsenic	0.191	mg/kg	+/-0.954	U	MS	0.191	0.954
	Beryllium	0.0191	mg/kg	+/-0.0954	U	MS	0.0191	0.0954
	Nickel	0.0954	mg/kg	+/-0.382	U	MS	0.0954	0.382
	Selenium	0.477	mg/kg	+/-0.954	U	MS	0.477	0.954
	Thallium	0.0573	mg/kg	+/-0.191	U	MS	0.0573	0.191
	Uranium	0.0126	mg/kg	+/-0.0382	U	MS	0.0126	0.0382
1202046765	Copper	282	ug/Kg	+/-940	U	P	282	940
	Vanadium	94	ug/Kg	+/-470	U	P	94	470

## METALS

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## Interference Check Sample

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
<b>ICSA01</b>									
	Aluminum	499000	ug/L	500000	ug/L	99.8	80.0 - 120.0	12-FEB-10 05:48	021210-1
	Antimony	-8.39	ug/L					12-FEB-10 05:48	021210-1
	Barium	7.52	ug/L					12-FEB-10 05:48	021210-1
	Cadmium	-6.21	ug/L					12-FEB-10 05:48	021210-1
	Calcium	474000	ug/L	500000	ug/L	94.8	80.0 - 120.0	12-FEB-10 05:48	021210-1
	Chromium	-0.79	ug/L					12-FEB-10 05:48	021210-1
	Cobalt	1.9	ug/L					12-FEB-10 05:48	021210-1
	Iron	187000	ug/L	200000	ug/L	93.4	80.0 - 120.0	12-FEB-10 05:48	021210-1
	Lead	12.2	ug/L					12-FEB-10 05:48	021210-1
	Magnesium	481000	ug/L	500000	ug/L	96.2	80.0 - 120.0	12-FEB-10 05:48	021210-1
	Manganese	7.82	ug/L					12-FEB-10 05:48	021210-1
	Potassium	-14.5	ug/L					12-FEB-10 05:48	021210-1
	Silver	-6.78	ug/L					12-FEB-10 05:48	021210-1
	Sodium	33.2	ug/L					12-FEB-10 05:48	021210-1
	Zinc	-8.78	ug/L					12-FEB-10 05:48	021210-1
<b>ICSAB01</b>									
	Aluminum	493000	ug/L	500000	ug/L	98.6	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Antimony	500	ug/L	500	ug/L	100	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Barium	491	ug/L	500	ug/L	98.3	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Cadmium	450	ug/L	500	ug/L	89.9	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Calcium	469000	ug/L	500000	ug/L	93.9	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Chromium	478	ug/L	500	ug/L	95.5	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Cobalt	427	ug/L	500	ug/L	85.4	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Iron	184000	ug/L	200000	ug/L	91.9	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Lead	477	ug/L	500	ug/L	95.4	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Magnesium	474000	ug/L	500000	ug/L	94.8	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Manganese	474	ug/L	500	ug/L	94.8	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Potassium	4970	ug/L	5000	ug/L	99.4	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Silver	251	ug/L	250	ug/L	100	80.0 - 120.0	12-FEB-10 05:51	021210-1

SW846



## METALS

-4-

## Interference Check Sample

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

ICS:

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<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Sodium	4920	ug/L	5000	ug/L	98.4	80.0 – 120.0	12-FEB-10 05:51	021210-1
	Zinc	454	ug/L	500	ug/L	90.8	80.0 – 120.0	12-FEB-10 05:51	021210-1

## METALS

-4-

## Interference Check Sample

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Copper	-2.01	ug/L					19-FEB-10 16:51	021910A-2
	Vanadium	-3.3	ug/L					19-FEB-10 16:51	021910A-2
ICSAB01	Copper	543	ug/L	500	ug/L	109	80.0 - 120.0	19-FEB-10 16:54	021910A-2
	Vanadium	520	ug/L	500	ug/L	104	80.0 - 120.0	19-FEB-10 16:54	021910A-2

## METALS

-4-

## Interference Check Sample

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Arsenic	1.06	ug/L					24-FEB-10 11:16	100224-3
	Selenium	-0.733	ug/L					24-FEB-10 11:16	100224-3
	Thallium	0.063	ug/L					24-FEB-10 11:16	100224-3
	Uranium	0.003	ug/L					24-FEB-10 11:16	100224-3
ICSAB01									
	Arsenic	21.6	ug/L	20	ug/L	108	80.0 - 120.0	24-FEB-10 11:19	100224-3
	Selenium	20.6	ug/L	20	ug/L	103	80.0 - 120.0	24-FEB-10 11:19	100224-3
	Thallium	19.8	ug/L	20	ug/L	99	80.0 - 120.0	24-FEB-10 11:19	100224-3
	Uranium	22.5	ug/L	20	ug/L	112	80.0 - 120.0	24-FEB-10 11:19	100224-3

## METALS

-4-

## Interference Check Sample

SDG No: 10-1433

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Beryllium	0.109	ug/L					24-FEB-10 12:16	100224-4
	Nickel	5.55	ug/L					24-FEB-10 12:16	100224-4
ICSAB01	Beryllium	19.0	ug/L	20	ug/L	95.2	80.0 - 120.0	24-FEB-10 12:18	100224-4
	Nickel	23.9	ug/L	23.31	ug/L	103	80.0 - 120.0	24-FEB-10 12:18	100224-4

## METALS

-5a-

## Matrix Spike Summary

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**SDG NO.** 10-1433 **Client ID** RE15-10-7883S

---

**Contract:** LANL01004 **Level:** Low**Matrix:** SOIL **% Solids:** 69**Sample ID:** 245688001 **Spike ID:** 1202029996

---

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M</u>
Mercury	ug/kg	75-125	170		17.8		159	96.1		AV

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## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-1433 Client ID RE15-10-7883SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 69

Sample ID: 245688001 Spike ID: 1202029998

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M</u>
Mercury	ug/kg	75-125	163		17.8		151	96.1		AV

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1433 Client ID RE15-10-7883S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 69

Sample ID: 245688001 Spike ID: 1202030849

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/Kg	75-125	72800		1580		67200	106		P
Barium	ug/Kg	75-125	143000		77600		67200	97.6		P
Cadmium	ug/Kg	75-125	69700		143	U	67200	104		P
Calcium	ug/Kg	75-125	1970000		1290000		672000	101		P
Chromium	ug/Kg	75-125	91400		12700		67200	117		P
Aluminum	ug/Kg		9730000		5870000		672000	575	N/A	P
Cobalt	ug/Kg	75-125	74400		6090		67200	102		P
Copper	ug/Kg	75-125	80200		10100		69100	102		P
Iron	ug/Kg		10900000		10500000		672000	53.2	N/A	P
Lead	ug/Kg	75-125	85800		14300		67200	107		P
Magnesium	ug/Kg	75-125	2030000		1140000		672000	133	N	P
Manganese	ug/Kg		383000		406000		67200	-34.8	N/A	P
Potassium	ug/Kg	75-125	2150000		1190000		672000	142	N	P
Silver	ug/Kg	75-125	70700		143	U	67200	105		P
Sodium	ug/Kg	75-125	747000		53800		672000	103		P
Vanadium	ug/Kg	75-125	86400		17600		69100	99.5		P
Zinc	ug/Kg	75-125	106000		29800		67200	113		P

## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-1433 Client ID RE15-10-7883SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 69

Sample ID: 245688001 Spike ID: 1202030850

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		8460000		5870000		649000	399	N/A	P
Antimony	ug/Kg	75-125	69600		1580		64900	105		P
Barium	ug/Kg	75-125	132000		77600		64900	83.9		P
Cadmium	ug/Kg	75-125	66100		143	U	64900	102		P
Calcium	ug/Kg	75-125	1580000		1290000		649000	44.5	N	P
Chromium	ug/Kg	75-125	79700		12700		64900	103		P
Cobalt	ug/Kg	75-125	70400		6090		64900	99.1		P
Copper	ug/Kg	75-125	83900		10100		72000	103		P
Iron	ug/Kg		10400000		10500000		649000	-17.4	N/A	P
Lead	ug/Kg	75-125	77300		14300		64900	97.1		P
Magnesium	ug/Kg	75-125	1830000		1140000		649000	107		P
Manganese	ug/Kg		384000		406000		64900	-33.1	N/A	P
Potassium	ug/Kg	75-125	1910000		1190000		649000	110		P
Silver	ug/Kg	75-125	67700		143	U	64900	104		P
Sodium	ug/Kg	75-125	730000		53800		649000	104		P
Vanadium	ug/Kg	75-125	92300		17600		72000	104		P
Zinc	ug/Kg	75-125	92200		29800		64900	96.2		P



## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1433 Client ID RE15-10-7883S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 69

Sample ID: 245688001 Spike ID: 1202030855

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	9.82		1.56		10	82.4		MS
Beryllium	mg/kg	75-125	5.75		0.549		6.26	83		MS
Nickel	mg/kg	75-125	10.5		4.82		6.26	90.2		MS
Selenium	mg/kg	75-125	1.57		0.703	U	2.51	56.4	N	MS
Thallium	mg/kg	75-125	11.1		0.229	J	12.5	86.7		MS
Uranium	mg/kg	75-125	13.6		7.58		6.26	95.6		MS

## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-1433 Client ID RE15-10-7883SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 69

Sample ID: 245688001 Spike ID: 1202030856

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	11.6		1.56		11.5	87.4		MS
Beryllium	mg/kg	75-125	6.56		0.549		7.2	83.5		MS
Nickel	mg/kg	75-125	11.4		4.82		7.2	91.7		MS
Selenium	mg/kg	75-125	2.09		0.703	U	2.88	67.2	N	MS
Thallium	mg/kg	75-125	13.4		0.229	J	14.4	91.7		MS
Uranium	mg/kg	75-125	15		7.58		7.2	103		MS

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7883D

Sample ID: 245688001

Duplicate ID: 1202029995

Percent Solids for Dup: 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-15.4	17.8		15.7		12.8		AV

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7883SD

Sample ID: 1202029996

Duplicate ID: 1202029998

Percent Solids for Dup: 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	170		163		4.4		AV

Metals  
-6-  
Duplicate Sample Summary

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7883D

Sample ID: 245688001

Duplicate ID: 1202030847

Percent Solids for Dup: 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	5870000		4640000		23.3	*	P
Antimony	ug/Kg	+/-1360	1580		450 U		123		P
Barium	ug/Kg	+/-20%	77600		53400		37	*	P
Cadmium	ug/Kg		143 U		136 U				P
Calcium	ug/Kg	+/-20%	1290000		865000		39.4	*	P
Chromium	ug/Kg	+/-20%	12700		11900		5.95		P
Cobalt	ug/Kg	+/-20%	6090		4290		34.8	*	P
Copper	ug/Kg	+/-20%	10100		7740		26.4	*	P
Iron	ug/Kg	+/-20%	10500000		9170000		13.9		P
Lead	ug/Kg	+/-20%	14300		9880		36.2	*	P
Magnesium	ug/Kg	+/-20%	1140000		873000		26.5	*	P
Manganese	ug/Kg	+/-20%	406000		295000		31.7	*	P
Potassium	ug/Kg	+/-20%	1190000		963000		21.1	*	P
Silver	ug/Kg		143 U		136 U				P
Sodium	ug/Kg	+/-34100	53800		44700		18.4		P
Vanadium	ug/Kg	+/-20%	17600		17200		2.05		P
Zinc	ug/Kg	+/-20%	29800		27600		7.53		P

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7883SD

Sample ID: 1202030849

Duplicate ID: 1202030850

Percent Solids for Dup: 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	9730000		8460000		14		P
Antimony	ug/Kg	+/-20	72800		69600		4.49		P
Barium	ug/Kg	+/-20	143000		132000		8.1		P
Cadmium	ug/Kg	+/-20	69700		66100		5.38		P
Calcium	ug/Kg	+/-20	1970000		1580000		21.9	*	P
Chromium	ug/Kg	+/-20	91400		79700		13.7		P
Cobalt	ug/Kg	+/-20	74400		70400		5.5		P
Copper	ug/Kg	+/-20	80200		83900		4.51		P
Iron	ug/Kg	+/-20	10900000		10400000		4.41		P
Lead	ug/Kg	+/-20	85800		77300		10.5		P
Magnesium	ug/Kg	+/-20	2030000		1830000		10.2		P
Manganese	ug/Kg	+/-20	383000		384000		.49		P
Potassium	ug/Kg	+/-20	2150000		1910000		11.9		P
Silver	ug/Kg	+/-20	70700		67700		4.41		P
Sodium	ug/Kg	+/-20	747000		730000		2.22		P
Vanadium	ug/Kg	+/-20	86400		92300		6.62		P
Zinc	ug/Kg	+/-20	106000		92200		13.5		P

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7883D

Sample ID: 245688001

Duplicate ID: 1202030853

Percent Solids for Dup: 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1.41	1.56		1.61		2.84		MS
Beryllium	mg/kg	+/- .141	0.549		0.589		6.92		MS
Nickel	mg/kg	+/-20%	4.82		4.93		2.36		MS
Selenium	mg/kg		0.703 U		0.704 U				MS
Thallium	mg/kg	+/- .282	0.229 J		0.148 J		43.1		MS
Uranium	mg/kg	+/-20%	7.58		8.53		11.8		MS

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7883SD

Sample ID: 1202030855

Duplicate ID: 1202030856

Percent Solids for Dup: 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	9.82		11.6		16.8		MS
Beryllium	mg/kg	+/-20	5.75		6.56		13.2		MS
Nickel	mg/kg	+/-20	10.5		11.4		8.65		MS
Selenium	mg/kg	+/-20	1.57		2.09		28.5	*	MS
Thallium	mg/kg	+/-20	11.1		13.4		19.1		MS
Uranium	mg/kg	+/-20	13.6		15		10		MS



## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1433

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

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<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202029994	Mercury	ug/kg	5150	5650		110	71.6-128.3	AV

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## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1433

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202030851								
	Antimony	ug/Kg	173000	195000		113	71-130	P
	Barium	ug/Kg	198000	223000		113	80-120	P
	Aluminum	ug/Kg	10500000	12100000		115	56-144	P
	Cadmium	ug/Kg	60700	66100		109	81-120	P
	Calcium	ug/Kg	9870000	11000000		111	83-117	P
	Chromium	ug/Kg	236000	276000		117	80-120	P
	Cobalt	ug/Kg	91200	105000		115	81-120	P
	Iron	ug/Kg	18000000	23300000		129	51-149	P
	Lead	ug/Kg	86000	98100		114	79-121	P
	Magnesium	ug/Kg	4000000	4670000		117	79-122	P
	Manganese	ug/Kg	558000	624000		112	81-119	P
	Potassium	ug/Kg	4300000	5040000		117	74-127	P
	Silver	ug/Kg	30100	34900		116	66-134	P
	Sodium	ug/Kg	1020000	1150000		112	74-127	P
	Zinc	ug/Kg	594000	676000		114	80-121	P

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1433

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202030857								
	Arsenic	mg/kg	104	99.3		95.4	78-123	MS
	Beryllium	mg/kg	77.6	84.4		109	84-116	MS
	Nickel	mg/kg	134	148		111	78-123	MS
	Selenium	mg/kg	286	262		91.7	77-123	MS
	Thallium	mg/kg	121	123		102	78-122	MS
	Uranium	mg/kg	2.13	2.12		99.7	73-127	MS

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1433

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202046766								
	Copper	ug/Kg	174000	198000		114	81-118	P
	Vanadium	ug/Kg	115000	133000		116	79-121	P

## METALS

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## Serial Dilution Sample Summary

SDG NO. 10-1433 Client ID RE15-10-7883L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 245688001 Serial Dilution ID: 1202029997

<u>Analyte</u>	<u>Initial Value ng/L</u>	<u>C</u>	<u>Serial Value ng/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Mercury	.219		.34	U	100			AV

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1433 Client ID RE15-10-7883L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 245688001 Serial Dilution ID: 1202030848

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	40900		42900		4.89		10	P
Antimony	11.1		27.2	J	145			P
Barium	541		545		.739		10	P
Cadmium	1	U	5	U				P
Calcium	8990		9350		4		10	P
Chromium	88.5		88.5		0		10	P
Cobalt	42.5		41.5		2.47			P
Copper	71.4		68		4.76			P
Iron	73500		77000		4.76		10	P
Lead	99.4		113		13.2			P
Magnesium	7950		8350		5.03		10	P
Manganese	2830		2920		3.18		10	P
Potassium	8300		8550		3.01		10	P
Silver	1	U	5	U				P
Sodium	375		351	J	6.4			P
Vanadium	125		124		1.2		10	P
Zinc	208		200		3.85		10	P

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1433

Client ID: RE15-10-7883L

Contract: LANL01004

Matrix: SOLID

Level: Low

Sample ID: 245688001

Serial Dilution ID: 1202030854

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	5.56		6.75	J	21.4			MS
Beryllium	1.95		2.23	J	14.4			MS
Nickel	17.1		18.8		9.65			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.815	J	1.5	U	100			MS
Uranium	27		26.9		.37		10	MS

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1433

Method Type: P

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 948031							
1202030846	MB for batch 948031	MB	S	08-FEB-10	.519g	50mL	
1202030851	LCS for batch 948031	LCS	S	08-FEB-10	.509g	50mL	
1202030849	RE15-10-7883S	MS	S	08-FEB-10	.54g	50mL	
1202030850	RE15-10-7883SD	MSD	S	08-FEB-10	.559g	50mL	
1202030847	RE15-10-7883D	DUP	S	08-FEB-10	.532g	50mL	
245688001	RE15-10-7883	SAMPLE	S	08-FEB-10	.506g	50mL	
245688002	RE15-10-7884	SAMPLE	S	08-FEB-10	.521g	50mL	
245688003	RE15-10-7932	SAMPLE	S	08-FEB-10	.505g	50mL	
245688004	RE15-10-7931	SAMPLE	S	08-FEB-10	.5g	50mL	
245688005	RE15-10-7938	SAMPLE	S	08-FEB-10	.505g	50mL	
245688006	RE15-10-7933	SAMPLE	S	08-FEB-10	.559g	50mL	
245688007	RE15-10-7939	SAMPLE	S	08-FEB-10	.531g	50mL	
245688008	RE15-10-7936	SAMPLE	S	08-FEB-10	.5g	50mL	
245688009	RE15-10-7935	SAMPLE	S	08-FEB-10	.517g	50mL	
245688010	RE15-10-7934	SAMPLE	S	08-FEB-10	.516g	50mL	
245688011	RE15-10-7940	SAMPLE	S	08-FEB-10	.522g	50mL	
245688012	RE15-10-7937	SAMPLE	S	08-FEB-10	.502g	50mL	
245688013	RE15-10-8056	SAMPLE	S	08-FEB-10	.522g	50mL	
245688014	RE15-10-8057	SAMPLE	S	08-FEB-10	.5g	50mL	

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**METALS**  
**-13-**  
**SAMPLE PREPARATION SUMMARY**

SDG No: 10-1433

Method Type: P

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 954750							
1202046765	MB for batch 954750	MB	S	18-FEB-10	.532g	50mL	
1202046766	LCS for batch 954750	LCS	S	18-FEB-10	.503g	50mL	
1202030849	RE15-10-7883S	MS	S	18-FEB-10	.525g	50mL	
1202030850	RE15-10-7883SD	MSD	S	18-FEB-10	.504g	50mL	
1202030847	RE15-10-7883D	DUP	S	18-FEB-10	.516g	50mL	
245688001	RE15-10-7883	SAMPLE	S	18-FEB-10	.513g	50mL	
245688002	RE15-10-7884	SAMPLE	S	18-FEB-10	.503g	50mL	
245688003	RE15-10-7932	SAMPLE	S	18-FEB-10	.597g	50mL	
245688004	RE15-10-7931	SAMPLE	S	18-FEB-10	.5g	50mL	
245688005	RE15-10-7938	SAMPLE	S	18-FEB-10	.501g	50mL	
245688006	RE15-10-7933	SAMPLE	S	18-FEB-10	.534g	50mL	
245688007	RE15-10-7939	SAMPLE	S	18-FEB-10	.543g	50mL	
245688008	RE15-10-7936	SAMPLE	S	18-FEB-10	.506g	50mL	
245688009	RE15-10-7935	SAMPLE	S	18-FEB-10	.503g	50mL	
245688010	RE15-10-7934	SAMPLE	S	18-FEB-10	.518g	50mL	
245688011	RE15-10-7940	SAMPLE	S	18-FEB-10	.5g	50mL	
245688012	RE15-10-7937	SAMPLE	S	18-FEB-10	.503g	50mL	
245688013	RE15-10-8056	SAMPLE	S	18-FEB-10	.556g	50mL	
245688014	RE15-10-8057	SAMPLE	S	18-FEB-10	.63g	50mL	

SW846

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1433

Method Type: MS

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
<b>Batch Number 948033</b>							
1202030852	MB for batch 948033	MB	S	23-FEB-10	.524g	50mL	
1202030857	LCS for batch 948033	LCS	S	23-FEB-10	.546g	50mL	
1202030855	RE15-10-7883S	MS	S	23-FEB-10	.579g	50mL	
1202030856	RE15-10-7883SD	MSD	S	23-FEB-10	.504g	50mL	
1202030853	RE15-10-7883D	DUP	S	23-FEB-10	.515g	50mL	
245688001	RE15-10-7883	SAMPLE	S	23-FEB-10	.516g	50mL	
245688002	RE15-10-7884	SAMPLE	S	23-FEB-10	.535g	50mL	
245688003	RE15-10-7932	SAMPLE	S	23-FEB-10	.572g	50mL	
245688004	RE15-10-7931	SAMPLE	S	23-FEB-10	.524g	50mL	
245688005	RE15-10-7938	SAMPLE	S	23-FEB-10	.537g	50mL	
245688006	RE15-10-7933	SAMPLE	S	23-FEB-10	.549g	50mL	
245688007	RE15-10-7939	SAMPLE	S	23-FEB-10	.533g	50mL	
245688008	RE15-10-7936	SAMPLE	S	23-FEB-10	.57g	50mL	
245688009	RE15-10-7935	SAMPLE	S	23-FEB-10	.553g	50mL	
245688010	RE15-10-7934	SAMPLE	S	23-FEB-10	.528g	50mL	
245688011	RE15-10-7940	SAMPLE	S	23-FEB-10	.523g	50mL	
245688012	RE15-10-7937	SAMPLE	S	23-FEB-10	.501g	50mL	
245688013	RE15-10-8056	SAMPLE	S	23-FEB-10	.529g	50mL	
245688014	RE15-10-8057	SAMPLE	S	23-FEB-10	.593g	50mL	

SW846

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METALS  
-13-  
SAMPLE PREPARATION SUMMARY

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SDG No: 10-1433

Method Type: AV

Contract: LANL01004

Lab Code: GEL

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<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 947653							
1202029993	MB for batch 947653	MB	S	15-FEB-10	.523g	30mL	
1202029994	LCS for batch 947653	LCS	S	15-FEB-10	.204g	30mL	
1202029996	RE15-10-7883S	MS	S	15-FEB-10	.548g	30mL	
1202029998	RE15-10-7883SD	MSD	S	15-FEB-10	.576g	30mL	
1202029995	RE15-10-7883D	DUP	S	15-FEB-10	.566g	30mL	
245688001	RE15-10-7883	SAMPLE	S	15-FEB-10	.535g	30mL	
245688002	RE15-10-7884	SAMPLE	S	15-FEB-10	.54g	30mL	
245688003	RE15-10-7932	SAMPLE	S	15-FEB-10	.518g	30mL	
245688004	RE15-10-7931	SAMPLE	S	15-FEB-10	.581g	30mL	
245688005	RE15-10-7938	SAMPLE	S	15-FEB-10	.515g	30mL	
245688006	RE15-10-7933	SAMPLE	S	15-FEB-10	.559g	30mL	
245688007	RE15-10-7939	SAMPLE	S	15-FEB-10	.521g	30mL	
245688008	RE15-10-7936	SAMPLE	S	15-FEB-10	.542g	30mL	
245688009	RE15-10-7935	SAMPLE	S	15-FEB-10	.536g	30mL	
245688010	RE15-10-7934	SAMPLE	S	15-FEB-10	.568g	30mL	
245688011	RE15-10-7940	SAMPLE	S	15-FEB-10	.55g	30mL	
245688012	RE15-10-7937	SAMPLE	S	15-FEB-10	.543g	30mL	
245688013	RE15-10-8056	SAMPLE	S	15-FEB-10	.538g	30mL	
245688014	RE15-10-8057	SAMPLE	S	15-FEB-10	.579g	30mL	

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SW846

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: MER536

Start Date: 16-FEB-10

End Date: 16-FEB-10

Client Sdg: 10-1433

Method AV

Data File: 021610S2-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	10:19															X									
S0.2	1	10:21															X									
S0.5	1	10:23															X									
S2.0	1	10:25															X									
S5.0	1	10:27															X									
S10	1	10:29															X									
ICV01	1	10:31															X									
ICB01	1	10:33															X									
CRDL01	1	10:35															X									
CCV01	1	10:37															X									
CCB01	1	10:39															X									
1202029993	1	10:41															X									
1202029994	10	10:43															X									
245688001	1	10:45															X									
1202029995	1	10:47															X									
1202029996	1	10:49															X									
1202029998	1	10:51															X									
1202029997	5	10:53															X									
245688002	1	10:55															X									
245688003	1	10:57															X									
245688004	1	10:59															X									
CCV02	1	11:01															X									
CCB02	1	11:03															X									
245688005	1	11:05															X									
245688006	1	11:07															X									
245688007	1	11:09															X									
245688008	1	11:11															X									
245688009	1	11:13															X									
245688010	1	11:15															X									
245688011	1	11:17															X									
245688012	1	11:19															X									
245688013	1	11:21															X									
245688014	1	11:23															X									
CCV03	1	11:25															X									
CCB03	1	11:27															X									

Metals  
-14-  
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS3

Start Date: 24-FEB-10

End Date: 24-FEB-10

Client Sdg: 10-1433

Method: MS

Data File: 100224-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	11:00			X															X			X	X		
S10	1	11:02			X															X			X	X		
S100	1	11:05			X															X			X	X		
ICV01	1	11:08			X															X			X	X		
ICB01	1	11:11			X															X			X	X		
CRDL01	1	11:13			X															X			X	X		
ICSA01	1	11:16			X															X			X	X		
ICSAB01	1	11:19			X															X			X	X		
CCV01	1	11:21			X															X			X	X		
CCB01	1	11:24			X															X			X	X		
1202030852	2	11:27			X															X			X	X		
ZZZZZZ	40	11:29																								
245688001	2	11:32			X															X			X	X		
1202030853	2	11:35			X															X			X	X		
1202030855	2	11:38			X															X			X	X		
1202030856	2	11:40			X															X			X	X		
1202030854	10	11:43			X															X			X	X		
245688002	2	11:46			X															X			X	X		
245688003	2	11:49			X															X			X	X		
245688004	2	11:51			X															X			X	X		
CCV02	1	11:54			X															X			X	X		
CCB02	1	11:57			X															X			X	X		
245688005	2	11:59			X															X			X	X		
245688006	2	12:02			X															X			X	X		
245688007	2	12:05			X															X			X	X		
245688008	2	12:08			X															X			X	X		
245688009	2	12:10			X															X			X			
245688010	2	12:13			X															X			X	X		
245688011	2	12:16			X															X			X	X		
245688012	2	12:19			X															X			X			
245688013	2	12:21			X															X			X			
245688014	2	12:24			X															X			X	X		
CCV03	1	12:27			X															X			X	X		
CCB03	1	12:30			X															X			X	X		
ZZZZZZ	10	12:34																								
245688009	20	12:38																						X		
245688012	10	12:41																						X		
245688013	10	12:44																						X		
1202030857	40	12:47			X															X			X	X		
CCV04	1	12:49			X															X			X	X		

Samp No.	D/F	Run Time
CCB04	1	12:52

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS4

Start Date: 24-FEB-10

End Date: 24-FEB-10

Client Sdg: 10-1433

Method MS

Data File: 100224-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	12:05					X											X								
S10	1	12:07					X											X								
S100	1	12:09					X											X								
ICV01	1	12:11					X											X								
ICB01	1	12:13					X											X								
CRDL01	1	12:15					X											X								
ICSA01	1	12:16					X											X								
ICSAB01	1	12:18					X											X								
CCV01	1	12:20					X											X								
CCB01	1	12:22					X											X								
1202030852	2	12:24					X											X								
1202030857	40	12:26					X											X								
CCV02	1	12:28					X											X								
CCB02	1	12:29					X											X								
245688001	2	12:31					X											X								
1202030853	2	12:33					X											X								
1202030855	2	12:35					X											X								
1202030856	2	12:37					X											X								
1202030854	10	12:39					X											X								
CCV03	1	12:41					X											X								
CCB03	1	12:43					X											X								
245688002	2	12:44					X											X								
245688003	2	12:46					X											X								
245688004	2	12:48					X											X								
245688005	2	12:50					X											X								
CCV04	1	12:52					X											X								
CCB04	1	12:54					X											X								
245688006	2	12:56					X											X								
245688007	2	12:58					X											X								
245688008	2	12:59					X											X								
245688009	2	13:01					X											X								
245688010	2	13:03					X											X								
CCV05	1	13:05					X											X								
CCB05	1	13:07					X											X								
245688011	2	13:09					X											X								
245688012	2	13:11					X											X								
245688013	2	13:13					X											X								
245688014	2	13:14					X											X								
CCV06	1	13:16					X											X								
CCB06	1	13:18					X											X								

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA1

Start Date: 12-FEB-10

End Date: 12-FEB-10

Client Sdg: 10-1433

Method P

Data File: 021210-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	05:22	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
S0.1	1	05:25		X		X		X		X	X			X		X			X		X					X
S0.5	1	05:28	X	X		X		X	X	X	X			X	X	X			X		X					X
SCAL	1	05:32	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
S10	1	05:35	X					X					X		X							X				
ICV01	1	05:38	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ICB01	1	05:41	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
PQL01	1	05:45	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ICSA01	1	05:48	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ICSAB01	1	05:51	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
LR01	1	05:54	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
LR02	1	05:57	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCV01	1	06:01	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB01	1	06:05	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
LR03	1	06:24	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCV02	1	06:28	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB02	1	06:31	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ZZZZZZ	1	06:43																								
ZZZZZZ	1	06:46																								
ZZZZZZ	1	06:50																								
ZZZZZZ	1	06:54																								
ZZZZZZ	1	06:57																								
ZZZZZZ	1	07:00																								
ZZZZZZ	5	07:04																								
ZZZZZZ	1	07:07																								
CCV03	1	07:10	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB03	1	07:14	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ZZZZZZ	1	07:21																								
ZZZZZZ	1	07:25																								
ZZZZZZ	1	07:28																								
ZZZZZZ	1	07:31																								
ZZZZZZ	1	07:35																								
ZZZZZZ	1	07:39																								
ZZZZZZ	5	07:42																								
ZZZZZZ	1	07:46																								
CCV04	1	07:50	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB04	1	07:53	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ZZZZZZ	1	07:57																								
ZZZZZZ	1	08:01																								
ZZZZZZ	1	08:04																								



**SW846**

Metals  
-14-  
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	10:47																								
ZZZZZZ	1	10:51																								
ZZZZZZ	1	10:54																								
CCV09	1	10:58	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB09	1	11:02	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030846	1	11:05	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030851	1	11:09	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688001	1	11:12	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030847	1	11:16	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030849	1	11:19	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030850	1	11:23	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030848	5	11:27	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688002	1	11:30	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688003	1	11:34	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688004	1	11:38	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCV10	1	11:41	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB10	1	11:45	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688005	1	11:49	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688006	1	11:52	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688007	1	11:56	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688008	1	12:00	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688009	1	12:03	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688010	1	12:07	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688011	1	12:11	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688012	1	12:14	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688013	1	12:18	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688014	1	12:22	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCV11	1	12:25	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB11	1	12:29	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA1

Start Date: 19-FEB-10

End Date: 19-FEB-10

Client Sdg: 10-1433

Method P

Data File: 021910A-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	16:24										X													X	
S0.1	1	16:28										X													X	
S0.5	1	16:30										X													X	
SCAL	1	16:34										X													X	
S10	1	16:38																								
ICV01	1	16:40										X													X	
ICB01	1	16:44										X													X	
PQL01	1	16:47										X													X	
ICSA01	1	16:51										X													X	
ICSAB01	1	16:54										X													X	
LR01	1	16:56										X													X	
LR02	1	16:59										X													X	
CCV01	1	17:03										X													X	
CCB01	1	17:07										X													X	
LR03	1	17:18										X													X	
CCV02	1	17:21										X													X	
CCB02	1	17:25										X													X	
ZZZZZZ	1	17:30																								
ZZZZZZ	1	17:34																								
ZZZZZZ	1	17:37																								
ZZZZZZ	1	17:41																								
ZZZZZZ	1	17:44																								
ZZZZZZ	1	17:48																								
CCV03	1	17:52										X													X	
CCB03	1	17:55										X													X	
1202046765	1	17:59										X													X	
1202046766	1	18:03										X													X	
245688001	1	18:06										X													X	
1202030847	1	18:09										X													X	
1202030849	1	18:13										X													X	
1202030850	1	18:17										X													X	
1202030848	5	18:20										X													X	
CCV04	1	18:24										X													X	
CCB04	1	18:28										X													X	
245688002	1	18:31										X													X	
245688003	1	18:35										X													X	
245688004	1	18:39										X													X	
245688005	1	18:42										X													X	
245688006	1	18:46										X													X	
245688007	1	18:50										X													X	

Samp No.	D/F	Run Time
245688008	1	18:53
CCV05	1	18:57
CCB05	1	19:01
245688009	1	19:04
245688010	1	19:08
245688011	1	19:12
245688012	1	19:15
245688013	1	19:19
245688014	1	19:23
CCV06	1	19:26
CCB06	1	19:30

# Standards

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**METALS**  
**-10-**  
**Instrument Detection Limits**

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SDG NO. 10-1433

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

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ICP/MS	<u>Analyte</u>	<u>Wavelength</u>	<u>MDL</u>	<u>RDL</u>
		<u>(nm)</u>	<u>ug/L</u>	<u>ug/L</u>
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS  
-10-  
Instrument Detection Limits

SDG NO. 10-1433

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 15-JUN-09

		<u>Wavelength</u> (nm)	<u>MDL</u> ug/L	<u>RDL</u> ug/L
MERCURY	<u>Analyte</u>			
SOLID	Mercury		0.068	.2

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**METALS**  
**-10-**  
**Instrument Detection Limits**

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SDG NO. 10-1433

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

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ICP	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10



**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-1433**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-1433**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1433

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Iron	Lead	Magnesium	Manganese	Molybdenum
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1433

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Nickel	Phosphorous	Selenium	Silicon	Silver
<b>Parmname</b>	<b>Wavelength</b>					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1433

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1433

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-1433

Contract: LANL01004

Lab Code: GEL

Instrument ID ICPMS3

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-1433

Contract: LANL01004

Lab Code: GEL

Instrument IDICPMS4

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Aluminum	1	50000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10



**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-1433

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA1

<u>Analyte</u>	<u>Integration Time (sec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

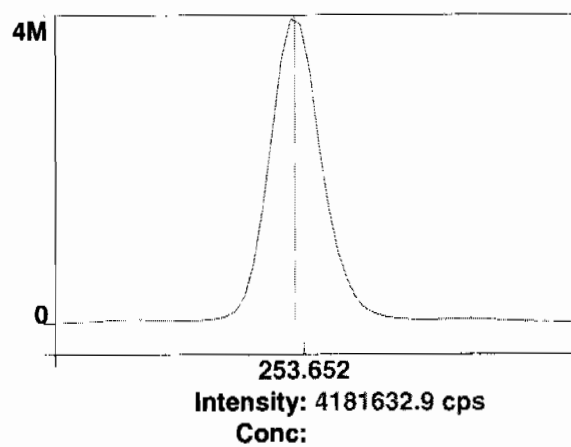
# Raw Data

Method: Hg\_ReAlign  
Result: 022410

Sample ID: Hg\_ReAlign

Hg 253.652

Rep: 1



1

2/12/2010 05:16:49 Hg ReAlign... Actual peak offset (nm): -0.001  
Drift (nm): -0.000 Slit adjustment: 2

## Analysis Begun

Start Time: 2/12/2010 05:22:11

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\021210.sif

Batch ID:

Results Data Set: 021210

Results Library: c:\pe\optimal\Results\Results.mdb

## Method Loaded

Method Name: Gen Eng fast\_new Si

Method Last Saved: 2/11/2010 15:12:15

IEC File: 011510.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 2/12/2010 05:22:13

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
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1	Sc RADIAL	56723.5	56723.5	0.000 %	05:22:48
1	Al 396.153Radial†	-23.4	-23.6	[0.00] µg/L	05:22:48
1	Ca 317.933Radial†	192.2	194.1	[0.00] µg/L	05:23:08
1	Fe 238.204 Radial†	14.7	14.9	[0.00] µg/L	05:23:08
1	K 766.490 Radial†	215.7	217.8	[0.00] µg/L	05:22:48
1	Mg 279.077 IEC†	11.2	11.3	[0.00] µg/L	05:23:08
1	Na 589.592 Radial†	521.4	526.5	[0.00] µg/L	05:22:48
1	Sr 421.552†	26.2	26.5	[0.00] µg/L	05:22:48
1	Sc 361.383	1958361.3	1958361.3	0.0000 %	05:24:10
1	Y 371.029	1346222.5	1346222.5	0.0000 %	05:24:10
1	Ag 328.068†	-581.9	-589.9	[0.00] µg/L	05:24:16
1	As 188.979†	3.3	3.4	[0.00] µg/L	05:24:36
1	B 249.677†	295.5	299.5	[0.00] µg/L	05:24:36
1	Ba 233.527†	-21.0	-21.3	[0.00] µg/L	05:24:36
1	Be 313.107†	-3568.0	-3617.1	[0.00] µg/L	05:24:16
1	Cd 226.502†	-152.1	-154.2	[0.00] µg/L	05:24:36
1	Co 228.616†	-11.3	-11.4	[0.00] µg/L	05:24:36
1	Cr 267.716†	-56.0	-56.8	[0.00] µg/L	05:24:16
1	Cu 324.752†	2495.8	2530.2	[0.00] µg/L	05:24:16
1	Mn 257.610†	-267.7	-271.3	[0.00] µg/L	05:24:36
1	Mo 202.031†	-5.4	-5.5	[0.00] µg/L	05:24:36
1	Ni 231.604†	307.9	312.1	[0.00] µg/L	05:24:36
1	P 214.914†	24.9	25.2	[0.00] µg/L	05:24:36
1	Pb 220.353†	90.3	91.6	[0.00] µg/L	05:24:36
1	S 181.975 Axial†	19.2	19.4	[0.00] µg/L	05:24:36
1	Sb 206.836†	28.9	29.3	[0.00] µg/L	05:24:36
1	Se 196.026†	20.9	21.2	[0.00] µg/L	05:24:36
1	SiO2†	1300.0	1317.9	[0.00] µg/L	05:24:16
1	Si 251.611†	290.5	294.5	[0.00] µg/L	05:24:36
1	Sn 189.927†	-4.0	-4.1	[0.00] µg/L	05:24:36
1	Ti 334.940†	76.5	77.6	[0.00] µg/L	05:24:16
1	Tl 190.801†	-22.3	-22.6	[0.00] µg/L	05:24:36
1	U 409.014†	-117.0	-118.6	[0.00] µg/L	05:24:16
1	V 292.402†	-26.1	-26.5	[0.00] µg/L	05:24:16
1	Zn 213.857†	462.5	468.8	[0.00] µg/L	05:24:36
2	Sc RADIAL	57982.3	57982.3	0.000 %	05:23:14
2	Al 396.153Radial†	-35.3	-34.9	[0.00] µg/L	05:23:14
2	Ca 317.933Radial†	180.3	178.1	[0.00] µg/L	05:23:34
2	Fe 238.204 Radial†	12.8	12.6	[0.00] µg/L	05:23:34
2	K 766.490 Radial†	143.3	141.6	[0.00] µg/L	05:23:14
2	Mg 279.077 IEC†	11.8	11.6	[0.00] µg/L	05:23:34
2	Na 589.592 Radial†	466.0	460.3	[0.00] µg/L	05:23:14
2	Sr 421.552†	15.0	14.8	[0.00] µg/L	05:23:14
2	Sc 361.383	1999421.5	1999421.5	0.0000 %	05:24:42
2	Y 371.029	1373345.7	1373345.7	0.0000 %	05:24:42
2	Ag 328.068†	-571.7	-567.7	[0.00] µg/L	05:24:48
2	As 188.979†	3.1	3.0	[0.00] µg/L	05:25:09
2	B 249.677†	295.2	293.2	[0.00] µg/L	05:25:09
2	Ba 233.527†	-33.2	-33.0	[0.00] µg/L	05:25:09
2	Be 313.107†	-3597.1	-3571.7	[0.00] µg/L	05:24:48
2	Cd 226.502†	-140.7	-139.7	[0.00] µg/L	05:25:09
2	Co 228.616†	-15.2	-15.1	[0.00] µg/L	05:25:09
2	Cr 267.716†	-47.4	-47.1	[0.00] µg/L	05:24:48
2	Cu 324.752†	2419.3	2402.2	[0.00] µg/L	05:24:48
2	Mn 257.610†	-264.0	-262.1	[0.00] µg/L	05:25:09
2	Mo 202.031†	-3.5	-3.4	[0.00] µg/L	05:25:09
2	Ni 231.604†	302.0	299.9	[0.00] µg/L	05:25:09
2	P 214.914†	32.2	32.0	[0.00] µg/L	05:25:09
2	Pb 220.353†	86.6	86.0	[0.00] µg/L	05:25:09
2	S 181.975 Axial†	13.9	13.8	[0.00] µg/L	05:25:09
2	Sb 206.836†	20.4	20.3	[0.00] µg/L	05:25:09
2	Se 196.026†	18.6	18.5	[0.00] µg/L	05:25:09
2	SiO2†	1279.3	1270.2	[0.00] µg/L	05:24:48
2	Si 251.611†	295.9	293.8	[0.00] µg/L	05:25:09
2	Sn 189.927†	4.6	4.6	[0.00] µg/L	05:25:09
2	Ti 334.940†	154.0	152.9	[0.00] µg/L	05:24:48
2	Tl 190.801†	-27.6	-27.4	[0.00] µg/L	05:25:09
2	U 409.014†	-89.8	-89.2	[0.00] µg/L	05:24:48
2	V 292.402†	-71.8	-71.3	[0.00] µg/L	05:24:48
2	Zn 213.857†	462.7	459.4	[0.00] µg/L	05:25:09
3	Sc RADIAL	57118.2	57118.2	0.000 %	05:23:40

3	Al 396.153Radial†	-14.1	-14.1	[0.00]	µg/L	05:23:40
3	Ca 317.933Radial†	187.9	188.4	[0.00]	µg/L	05:24:00
3	Fe 238.204 Radial†	13.6	13.6	[0.00]	µg/L	05:24:00
3	K 766.490 Radial†	139.7	140.1	[0.00]	µg/L	05:23:40
3	Mg 279.077 IEC†	9.5	9.6	[0.00]	µg/L	05:24:00
3	Na 589.592 Radial†	553.1	554.6	[0.00]	µg/L	05:23:40
3	Sr 421.552†	34.9	35.0	[0.00]	µg/L	05:23:40
3	Sc 361.383	1998132.9	1998132.9	0.0000	%	05:25:15
3	Y 371.029	1373625.1	1373625.1	0.0000	%	05:25:15
3	Ag 328.068†	-528.9	-525.5	[0.00]	µg/L	05:25:20
3	As 188.979†	-0.9	-0.9	[0.00]	µg/L	05:25:41
3	B 249.677†	291.9	290.1	[0.00]	µg/L	05:25:41
3	Ba 233.527†	-24.0	-23.9	[0.00]	µg/L	05:25:41
3	Be 313.107†	-3635.7	-3612.4	[0.00]	µg/L	05:25:20
3	Cd 226.502†	-145.5	-144.6	[0.00]	µg/L	05:25:41
3	Co 228.616†	-0.1	-0.1	[0.00]	µg/L	05:25:41
3	Cr 267.716†	-42.1	-41.8	[0.00]	µg/L	05:25:20
3	Cu 324.752†	2415.6	2400.1	[0.00]	µg/L	05:25:20
3	Mn 257.610†	-262.2	-260.5	[0.00]	µg/L	05:25:41
3	Mo 202.031†	-5.6	-5.6	[0.00]	µg/L	05:25:41
3	Ni 231.604†	297.4	295.4	[0.00]	µg/L	05:25:41
3	P 214.914†	22.8	22.6	[0.00]	µg/L	05:25:41
3	Pb 220.353†	83.7	83.1	[0.00]	µg/L	05:25:41
3	S 181.975 Axial†	19.2	19.1	[0.00]	µg/L	05:25:41
3	Sb 206.836†	21.6	21.4	[0.00]	µg/L	05:25:41
3	Se 196.026†	15.5	15.4	[0.00]	µg/L	05:25:41
3	SiO2†	1293.0	1284.7	[0.00]	µg/L	05:25:20
3	Si 251.611†	298.9	297.0	[0.00]	µg/L	05:25:41
3	Sn 189.927†	0.4	0.4	[0.00]	µg/L	05:25:41
3	Ti 334.940†	56.0	55.6	[0.00]	µg/L	05:25:20
3	Tl 190.801†	-21.4	-21.2	[0.00]	µg/L	05:25:41
3	U 409.014†	-60.0	-59.6	[0.00]	µg/L	05:25:20
3	V 292.402†	-39.5	-39.3	[0.00]	µg/L	05:25:20
3	Zn 213.857†	466.9	463.9	[0.00]	µg/L	05:25:41

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Mean Data: S0

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	1985305.2	23343.02	1.18%	0.0000	%
Sc RADIAL	57274.7	643.83	1.12%	0.000	%
Y 371.029	1364397.7	15740.88	1.15%	0.0000	%
Ag 328.068†	-561.1	32.71	5.83%	[0.00]	µg/L
Al 396.153Radial†	-24.2	10.39	42.90%	[0.00]	µg/L
As 188.979†	1.8	2.40	131.15%	[0.00]	µg/L
B 249.677†	294.2	4.84	1.64%	[0.00]	µg/L
Ba 233.527†	-26.0	6.14	23.60%	[0.00]	µg/L
Be 313.107†	-3600.4	24.97	0.69%	[0.00]	µg/L
Ca 317.933Radial†	186.9	8.09	4.33%	[0.00]	µg/L
Cd 226.502†	-146.2	7.37	5.04%	[0.00]	µg/L
Co 228.616†	-8.9	7.80	87.97%	[0.00]	µg/L
Cr 267.716†	-48.6	7.59	15.62%	[0.00]	µg/L
Cu 324.752†	2444.2	74.48	3.05%	[0.00]	µg/L
Fe 238.204 Radial†	13.7	1.13	8.28%	[0.00]	µg/L
K 766.490 Radial†	166.5	44.45	26.70%	[0.00]	µg/L
Mg 279.077 IEC†	10.8	1.12	10.35%	[0.00]	µg/L
Mn 257.610†	-264.7	5.83	2.20%	[0.00]	µg/L
Mo 202.031†	-4.8	1.22	25.19%	[0.00]	µg/L
Na 589.592 Radial†	513.8	48.41	9.42%	[0.00]	µg/L
Ni 231.604†	302.5	8.65	2.86%	[0.00]	µg/L
P 214.914†	26.6	4.82	18.10%	[0.00]	µg/L
Pb 220.353†	86.9	4.30	4.95%	[0.00]	µg/L
S 181.975 Axial†	17.4	3.18	18.21%	[0.00]	µg/L
Sb 206.836†	23.7	4.91	20.74%	[0.00]	µg/L
Se 196.026†	18.4	2.92	15.92%	[0.00]	µg/L
SiO2†	1290.9	24.41	1.89%	[0.00]	µg/L
Si 251.611†	295.1	1.68	0.57%	[0.00]	µg/L
Sn 189.927†	0.3	4.34	>999.9%	[0.00]	µg/L
Sr 421.552†	25.4	10.15	39.91%	[0.00]	µg/L
Ti 334.940†	95.4	51.02	53.51%	[0.00]	µg/L
Tl 190.801†	-23.7	3.24	13.65%	[0.00]	µg/L

U 409.014†	-89.1	29.49	33.10%	[0.00] µg/L
V 292.402†	-45.7	23.08	50.51%	[0.00] µg/L
Zn 213.857†	464.0	4.71	1.02%	[0.00] µg/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 2/12/2010 05:25:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Analysis Time
1	Sc RADIAL	57870.0	57870.0	101	%	05:26:25
1	K 766.490 Radial†	1655.0	1471.5	[1000]	µg/L	05:26:25
1	Sr 421.552†	10538.5	10404.7	[100]	µg/L	05:26:25
1	Sc 361.383	1968443.4	1968443.4	99.151	%	05:26:47
1	Y 371.029	1353350.5	1353350.5	99.190	%	05:26:47
1	Ag 328.068†	12706.9	13376.8	[100]	µg/L	05:26:52
1	As 188.979†	56.5	55.1	[100]	µg/L	05:27:13
1	B 249.677†	2705.7	2434.6	[100]	µg/L	05:26:52
1	Ba 233.527†	4084.4	4145.5	[100]	µg/L	05:26:52
1	Be 313.107†	159880.7	164850.6	[100]	µg/L	05:26:47
1	Cd 226.502†	3796.2	3974.9	[100]	µg/L	05:26:52
1	Co 228.616†	2174.3	2201.8	[100]	µg/L	05:27:13
1	Cr 267.716†	4878.6	4968.9	[100]	µg/L	05:26:52
1	Cu 324.752†	18183.5	15895.0	[100]	µg/L	05:26:52
1	Mn 257.610†	31239.6	31771.9	[100]	µg/L	05:26:52
1	Mo 202.031†	1022.1	1035.7	[100]	µg/L	05:27:13
1	Ni 231.604†	2319.7	2037.1	[100]	µg/L	05:26:52
1	P 214.914†	281.1	256.9	[500]	µg/L	05:27:13
1	Pb 220.353†	508.0	425.4	[100]	µg/L	05:27:13
1	S 181.975 Axial†	62.9	46.0	[200]	µg/L	05:27:13
1	Sb 206.836†	133.8	111.3	[100]	µg/L	05:27:13
1	Se 196.026†	82.6	65.0	[100]	µg/L	05:27:13
1	SiO2†	6531.8	5296.8	[1069.5]	µg/L	05:26:52
1	Si 251.611†	6778.2	6541.2	[500]	µg/L	05:26:52
1	Sn 189.927†	241.8	243.6	[100]	µg/L	05:27:13
1	Ti 334.940†	43415.9	43692.4	[100]	µg/L	05:26:52
1	Tl 190.801†	50.9	75.1	[100]	µg/L	05:27:13
1	U 409.014†	1097.2	1195.7	[100]	µg/L	05:26:52
1	V 292.402†	10035.9	10167.6	[100]	µg/L	05:26:52
1	Zn 213.857†	4859.1	4436.7	[100]	µg/L	05:26:52
2	Sc RADIAL	58303.6	58303.6	102	%	05:26:31
2	K 766.490 Radial†	1653.9	1458.2	[1000]	µg/L	05:26:31
2	Sr 421.552†	10363.1	10154.8	[100]	µg/L	05:26:31
2	Sc 361.383	1991540.9	1991540.9	100.31	%	05:27:19
2	Y 371.029	1368396.0	1368396.0	100.29	%	05:27:19
2	Ag 328.068†	12874.6	13395.3	[100]	µg/L	05:27:25
2	As 188.979†	59.1	57.1	[100]	µg/L	05:27:45
2	B 249.677†	2688.0	2385.3	[100]	µg/L	05:27:25
2	Ba 233.527†	4160.2	4173.2	[100]	µg/L	05:27:25
2	Be 313.107†	159894.4	162994.1	[100]	µg/L	05:27:19
2	Cd 226.502†	3865.6	3999.6	[100]	µg/L	05:27:25
2	Co 228.616†	2191.5	2193.5	[100]	µg/L	05:27:45
2	Cr 267.716†	4983.7	5016.6	[100]	µg/L	05:27:25
2	Cu 324.752†	18345.4	15843.8	[100]	µg/L	05:27:25
2	Mn 257.610†	31639.8	31805.4	[100]	µg/L	05:27:25
2	Mo 202.031†	1046.0	1047.5	[100]	µg/L	05:27:45
2	Ni 231.604†	2329.1	2019.4	[100]	µg/L	05:27:25
2	P 214.914†	287.0	259.4	[500]	µg/L	05:27:45
2	Pb 220.353†	515.8	427.3	[100]	µg/L	05:27:45
2	S 181.975 Axial†	66.5	48.8	[200]	µg/L	05:27:45
2	Sb 206.836†	135.6	111.5	[100]	µg/L	05:27:45
2	Se 196.026†	82.7	64.1	[100]	µg/L	05:27:45
2	SiO2†	6666.7	5354.9	[1069.5]	µg/L	05:27:25
2	Si 251.611†	6804.3	6487.9	[500]	µg/L	05:27:25
2	Sn 189.927†	245.3	244.2	[100]	µg/L	05:27:45
2	Ti 334.940†	43888.7	43655.9	[100]	µg/L	05:27:25
2	Tl 190.801†	50.7	74.3	[100]	µg/L	05:27:45
2	U 409.014†	1073.6	1159.4	[100]	µg/L	05:27:25
2	V 292.402†	10121.6	10135.6	[100]	µg/L	05:27:25



2	Zn 213.857†	4879.5	4400.2	[100] µg/L	05:27:25
3	Sc RADIAL	57902.6	57902.6	101 %	05:26:36
3	K 766.490 Radial†	1640.7	1456.4	[1000] µg/L	05:26:36
3	Sr 421.552†	10328.5	10191.1	[100] µg/L	05:26:36
3	Sc 361.383	1984635.2	1984635.2	99.966 %	05:27:52
3	Y 371.029	1365123.0	1365123.0	100.05 %	05:27:52
3	Ag 328.068†	13051.5	13616.9	[100] µg/L	05:27:57
3	As 188.979†	55.2	53.4	[100] µg/L	05:28:18
3	B 249.677†	2692.8	2399.5	[100] µg/L	05:27:57
3	Ba 233.527†	4185.3	4212.7	[100] µg/L	05:27:57
3	Be 313.107†	157311.5	160965.0	[100] µg/L	05:27:52
3	Cd 226.502†	3881.0	4028.5	[100] µg/L	05:27:57
3	Co 228.616†	2187.9	2197.5	[100] µg/L	05:28:18
3	Cr 267.716†	5013.2	5063.4	[100] µg/L	05:27:57
3	Cu 324.752†	18448.3	16010.3	[100] µg/L	05:27:57
3	Mn 257.610†	31876.5	32151.9	[100] µg/L	05:27:57
3	Mo 202.031†	1047.6	1052.8	[100] µg/L	05:28:18
3	Ni 231.604†	2348.1	2046.4	[100] µg/L	05:27:57
3	P 214.914†	287.0	260.5	[500] µg/L	05:28:18
3	Pb 220.353†	503.9	417.2	[100] µg/L	05:28:18
3	S 181.975 Axial†	66.5	49.1	[200] µg/L	05:28:18
3	Sb 206.836†	133.8	110.1	[100] µg/L	05:28:18
3	Se 196.026†	87.1	68.8	[100] µg/L	05:28:18
3	SiO2†	6642.3	5353.6	[1069.5] µg/L	05:27:57
3	Si 251.611†	6864.3	6571.6	[500] µg/L	05:27:57
3	Sn 189.927†	244.0	243.8	[100] µg/L	05:28:18
3	Ti 334.940†	44173.6	44093.2	[100] µg/L	05:27:57
3	Tl 190.801†	55.1	78.8	[100] µg/L	05:28:18
3	U 409.014†	1235.7	1325.2	[100] µg/L	05:27:57
3	V 292.402†	10181.9	10231.1	[100] µg/L	05:27:57
3	Zn 213.857†	4961.1	4498.7	[100] µg/L	05:27:57

## Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1981539.8	11855.78	0.60%	99.810 %
Sc RADIAL	58025.4	241.45	0.42%	101 %
Y 371.029	1362289.8	7912.76	0.58%	99.846 %
Ag 328.068†	13463.0	133.63	0.99%	[100] µg/L
As 188.979†	55.2	1.85	3.36%	[100] µg/L
B 249.677†	2406.5	25.39	1.06%	[100] µg/L
Ba 233.527†	4177.1	33.81	0.81%	[100] µg/L
Be 313.107†	162936.6	1943.44	1.19%	[100] µg/L
Cd 226.502†	4001.0	26.82	0.67%	[100] µg/L
Co 228.616†	2197.6	4.11	0.19%	[100] µg/L
Cr 267.716†	5016.3	47.25	0.94%	[100] µg/L
Cu 324.752†	15916.4	85.31	0.54%	[100] µg/L
K 766.490 Radial†	1462.0	8.21	0.56%	[1000] µg/L
Mn 257.610†	31909.7	210.44	0.66%	[100] µg/L
Mo 202.031†	1045.3	8.75	0.84%	[100] µg/L
Ni 231.604†	2034.3	13.73	0.67%	[100] µg/L
P 214.914†	258.9	1.87	0.72%	[500] µg/L
Pb 220.353†	423.3	5.38	1.27%	[100] µg/L
S 181.975 Axial†	48.0	1.72	3.58%	[200] µg/L
Sb 206.836†	111.0	0.74	0.67%	[100] µg/L
Se 196.026†	65.9	2.49	3.77%	[100] µg/L
SiO2†	5335.1	33.16	0.62%	[1069.5] µg/L
Si 251.611†	6533.6	42.33	0.65%	[500] µg/L
Sn 189.927†	243.8	0.32	0.13%	[100] µg/L
Sr 421.552†	10250.2	135.02	1.32%	[100] µg/L
Ti 334.940†	43813.8	242.59	0.55%	[100] µg/L
Tl 190.801†	76.1	2.40	3.16%	[100] µg/L
U 409.014†	1226.8	87.16	7.10%	[100] µg/L
V 292.402†	10178.1	48.57	0.48%	[100] µg/L
Zn 213.857†	4445.2	49.79	1.12%	[100] µg/L

Sequence No.: 3

Sample ID: S0.5

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 2/12/2010 05:28:27

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S0.5

Rep#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Analysis Time
1	Sc RADIAL	59218.0	59218.0	103 %	05:29:00
1	Al 396.153Radial†	6836.5	6636.4	[5000] µg/L	05:29:20
1	Ca 317.933Radial†	5684.9	5311.5	[5000] µg/L	05:29:20
1	K 766.490 Radial†	7388.4	6979.4	[5000] µg/L	05:29:00
1	Mg 279.077 IEC†	565.6	536.2	[5000] µg/L	05:29:20
1	Sr 421.552†	50129.6	48459.1	[500] µg/L	05:29:00
1	Sc 361.383	1984473.3	1984473.3	99.958 %	05:30:24
1	Y 371.029	1359344.1	1359344.1	99.630 %	05:30:24
1	Ag 328.068†	63710.1	64297.9	[500] µg/L	05:30:29
1	As 188.979†	274.4	272.7	[500] µg/L	05:30:50
1	B 249.677†	12223.4	11934.3	[500] µg/L	05:30:29
1	Ba 233.527†	20078.2	20112.6	[500] µg/L	05:30:29
1	Be 313.107†	790447.9	794379.7	[500] µg/L	05:30:24
1	Cd 226.502†	19014.5	19168.7	[500] µg/L	05:30:29
1	Co 228.616†	10727.8	10741.2	[500] µg/L	05:30:29
1	Cr 267.716†	23912.7	23971.3	[500] µg/L	05:30:29
1	Cu 324.752†	77167.5	74755.7	[500] µg/L	05:30:29
1	Mn 257.610†	152717.1	153045.8	[500] µg/L	05:30:24
1	Mo 202.031†	5026.1	5033.0	[500] µg/L	05:30:50
1	Ni 231.604†	9958.3	9660.0	[500] µg/L	05:30:29
1	P 214.914†	1285.5	1259.4	[2500] µg/L	05:30:50
1	Pb 220.353†	2102.3	2016.2	[500] µg/L	05:30:50
1	S 181.975 Axial†	262.0	244.7	[1000] µg/L	05:30:50
1	Sb 206.836†	556.9	533.5	[500] µg/L	05:30:50
1	Se 196.026†	365.2	347.0	[500] µg/L	05:30:50
1	SiO2†	27110.7	25831.2	[5347.5] µg/L	05:30:29
1	Si 251.611†	31832.2	31550.5	[2500] µg/L	05:30:29
1	Sn 189.927†	1186.2	1186.4	[500] µg/L	05:30:50
1	Ti 334.940†	212112.7	212106.3	[500] µg/L	05:30:24
1	Tl 190.801†	357.4	381.3	[500] µg/L	05:30:50
1	U 409.014†	5800.4	5891.9	[500] µg/L	05:30:29
1	V 292.402†	48839.4	48905.5	[500] µg/L	05:30:29
1	Zn 213.857†	21632.2	21177.2	[500] µg/L	05:30:29
2	Sc RADIAL	59153.8	59153.8	103 %	05:29:26
2	Al 396.153Radial†	6815.1	6622.9	[5000] µg/L	05:29:46
2	Ca 317.933Radial†	5686.3	5318.7	[5000] µg/L	05:29:46
2	K 766.490 Radial†	7381.7	6980.7	[5000] µg/L	05:29:26
2	Mg 279.077 IEC†	562.7	534.0	[5000] µg/L	05:29:46
2	Sr 421.552†	50479.4	48850.4	[500] µg/L	05:29:26
2	Sc 361.383	1975685.3	1975685.3	99.515 %	05:30:57
2	Y 371.029	1353100.7	1353100.7	99.172 %	05:30:57
2	Ag 328.068†	63735.0	64606.4	[500] µg/L	05:31:03
2	As 188.979†	275.0	274.6	[500] µg/L	05:31:23
2	B 249.677†	12196.0	11961.2	[500] µg/L	05:31:03
2	Ba 233.527†	20038.9	20162.5	[500] µg/L	05:31:03
2	Be 313.107†	792591.3	800050.9	[500] µg/L	05:30:57
2	Cd 226.502†	19109.7	19349.0	[500] µg/L	05:31:03
2	Co 228.616†	10758.6	10819.8	[500] µg/L	05:31:03
2	Cr 267.716†	23989.6	24154.9	[500] µg/L	05:31:03
2	Cu 324.752†	77167.1	75098.6	[500] µg/L	05:31:03
2	Mn 257.610†	153167.6	154178.0	[500] µg/L	05:30:57
2	Mo 202.031†	5007.9	5037.2	[500] µg/L	05:31:23
2	Ni 231.604†	10046.3	9792.8	[500] µg/L	05:31:03
2	P 214.914†	1289.9	1269.6	[2500] µg/L	05:31:23
2	Pb 220.353†	2101.4	2024.8	[500] µg/L	05:31:23
2	S 181.975 Axial†	256.1	239.9	[1000] µg/L	05:31:23
2	Sb 206.836†	556.7	535.7	[500] µg/L	05:31:23
2	Se 196.026†	362.6	346.0	[500] µg/L	05:31:23
2	SiO2†	27076.6	25917.5	[5347.5] µg/L	05:31:03

2	Si 251.611†	31863.2	31723.3	[2500]	µg/L	05:31:03
2	Sn 189.927†	1177.8	1183.2	[500]	µg/L	05:31:23
2	Ti 334.940†	212543.4	213482.9	[500]	µg/L	05:30:57
2	Tl 190.801†	355.0	380.5	[500]	µg/L	05:31:23
2	U 409.014†	5894.8	6012.6	[500]	µg/L	05:31:03
2	V 292.402†	48934.8	49218.7	[500]	µg/L	05:31:03
2	Zn 213.857†	21679.0	21320.5	[500]	µg/L	05:31:03
3	Sc RADIAL	59543.1	59543.1	104	%	05:29:52
3	Al 396.153Radial†	6953.9	6713.2	[5000]	µg/L	05:30:12
3	Ca 317.933Radial†	5795.5	5387.8	[5000]	µg/L	05:30:12
3	K 766.490 Radial†	7339.7	6893.5	[5000]	µg/L	05:29:52
3	Mg 279.077 IEC†	576.5	543.7	[5000]	µg/L	05:30:12
3	Sr 421.552†	49461.2	47551.5	[500]	µg/L	05:29:52
3	Sc 361.383	1988578.7	1988578.7	100.16	%	05:31:30
3	Y 371.029	1361919.9	1361919.9	99.818	%	05:31:30
3	Ag 328.068†	59560.1	60023.1	[500]	µg/L	05:31:36
3	As 188.979†	239.6	237.4	[500]	µg/L	05:31:57
3	B 249.677†	11370.8	11057.8	[500]	µg/L	05:31:36
3	Ba 233.527†	18311.8	18307.7	[500]	µg/L	05:31:36
3	Be 313.107†	760026.1	762375.3	[500]	µg/L	05:31:30
3	Cd 226.502†	17254.3	17372.1	[500]	µg/L	05:31:36
3	Co 228.616†	9715.7	9708.6	[500]	µg/L	05:31:36
3	Cr 267.716†	21210.1	21223.8	[500]	µg/L	05:31:36
3	Cu 324.752†	70652.8	68092.3	[500]	µg/L	05:31:36
3	Mn 257.610†	147112.8	147135.3	[500]	µg/L	05:31:30
3	Mo 202.031†	4246.4	4244.2	[500]	µg/L	05:31:57
3	Ni 231.604†	9066.0	8748.6	[500]	µg/L	05:31:36
3	P 214.914†	1115.8	1087.3	[2500]	µg/L	05:31:57
3	Pb 220.353†	1851.6	1761.6	[500]	µg/L	05:31:57
3	S 181.975 Axial†	232.6	214.8	[1000]	µg/L	05:31:57
3	Sb 206.836†	495.7	471.2	[500]	µg/L	05:31:57
3	Se 196.026†	327.2	308.3	[500]	µg/L	05:31:57
3	SiO2†	25097.0	23764.8	[5347.5]	µg/L	05:31:36
3	Si 251.611†	29366.1	29022.7	[2500]	µg/L	05:31:36
3	Sn 189.927†	980.8	978.9	[500]	µg/L	05:31:57
3	Ti 334.940†	203259.6	202829.7	[500]	µg/L	05:31:30
3	Tl 190.801†	319.5	342.8	[500]	µg/L	05:31:57
3	U 409.014†	5234.2	5314.7	[500]	µg/L	05:31:36
3	V 292.402†	44213.4	44186.3	[500]	µg/L	05:31:36
3	Zn 213.857†	19698.8	19202.4	[500]	µg/L	05:31:36

## Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1982912.4	6586.86	0.33%	99.879	%
Sc RADIAL	59305.0	208.71	0.35%	104	%
Y 371.029	1358121.6	4534.91	0.33%	99.540	%
Ag 328.068†	62975.8	2561.74	4.07%	[500]	µg/L
Al 396.153Radial†	6657.5	48.73	0.73%	[5000]	µg/L
As 188.979†	261.5	20.95	8.01%	[500]	µg/L
B 249.677†	11651.1	513.98	4.41%	[500]	µg/L
Ba 233.527†	19527.6	1056.78	5.41%	[500]	µg/L
Be 313.107†	785602.0	20313.74	2.59%	[500]	µg/L
Ca 317.933Radial†	5339.4	42.15	0.79%	[5000]	µg/L
Cd 226.502†	18629.9	1093.04	5.87%	[500]	µg/L
Co 228.616†	10423.2	620.11	5.95%	[500]	µg/L
Cr 267.716†	23116.7	1641.87	7.10%	[500]	µg/L
Cu 324.752†	72648.9	3949.82	5.44%	[500]	µg/L
K 766.490 Radial†	6951.2	49.95	0.72%	[5000]	µg/L
Mg 279.077 IEC†	538.0	5.06	0.94%	[5000]	µg/L
Mn 257.610†	151453.0	3781.91	2.50%	[500]	µg/L
Mo 202.031†	4771.5	456.61	9.57%	[500]	µg/L
Ni 231.604†	9400.4	568.43	6.05%	[500]	µg/L
P 214.914†	1205.4	102.41	8.50%	[2500]	µg/L
Pb 220.353†	1934.2	149.53	7.73%	[500]	µg/L
S 181.975 Axial†	233.1	16.03	6.88%	[1000]	µg/L
Sb 206.836†	513.5	36.60	7.13%	[500]	µg/L
Se 196.026†	333.8	22.05	6.60%	[500]	µg/L
SiO2†	25171.2	1218.72	4.84%	[5347.5]	µg/L
Si 251.611†	30765.5	1511.78	4.91%	[2500]	µg/L

Sn 189.927†	1116.2	118.89	10.65%	[500]	µg/L
Sr 421.552†	48287.0	666.35	1.38%	[500]	µg/L
Ti 334.940†	209473.0	5794.28	2.77%	[500]	µg/L
Tl 190.801†	368.2	22.03	5.98%	[500]	µg/L
U 409.014†	5739.7	373.01	6.50%	[500]	µg/L
V 292.402†	47436.8	2819.43	5.94%	[500]	µg/L
Zn 213.857†	20566.7	1183.71	5.76%	[500]	µg/L

Sequence No.: 4  
 Sample ID: SCAL  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/12/2010 05:32:07  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc RADIAL	57645.9	57645.9	101	%	05:32:40
1	Al 396.153Radial†	14275.4	14207.7	[10000]	µg/L	05:32:40
1	Ca 317.933Radial†	11718.0	11455.7	[10000]	µg/L	05:33:00
1	Fe 238.204 Radial†	1299.7	1277.7	[10000]	µg/L	05:33:00
1	K 766.490 Radial†	14871.7	14609.4	[10000]	µg/L	05:32:40
1	Mg 279.077 IEC†	1176.6	1158.2	[10000]	µg/L	05:33:00
1	Na 589.592 Radial†	32612.4	31888.6	[10000]	µg/L	05:32:40
1	Sr 421.552†	102443.6	101758.4	[1000]	µg/L	05:32:40
1	Sc 361.383	1958958.3	1958958.3	98.673	%	05:34:04
1	Y 371.029	1340764.6	1340764.6	98.268	%	05:34:04
1	Ag 328.068†	133624.0	135982.2	[1000]	µg/L	05:34:09
1	As 188.979†	574.6	580.5	[1000]	µg/L	05:34:30
1	B 249.677†	25046.1	25088.7	[1000]	µg/L	05:34:09
1	Ba 233.527†	41511.0	42095.3	[1000]	µg/L	05:34:09
1	Be 313.107†	1613256.3	1638554.1	[1000]	µg/L	05:34:04
1	Cd 226.502†	39255.6	39929.8	[1000]	µg/L	05:34:09
1	Co 228.616†	22065.2	22370.8	[1000]	µg/L	05:34:09
1	Cr 267.716†	49667.7	50384.3	[1000]	µg/L	05:34:09
1	Cu 324.752†	157980.7	157661.2	[1000]	µg/L	05:34:09
1	Mn 257.610†	313821.5	318306.9	[1000]	µg/L	05:34:09
1	Mo 202.031†	10459.6	10605.2	[1000]	µg/L	05:34:30
1	Ni 231.604†	20146.4	20114.9	[1000]	µg/L	05:34:09
1	P 214.914†	2633.8	2642.6	[5000]	µg/L	05:34:30
1	Pb 220.353†	4237.3	4207.4	[1000]	µg/L	05:34:30
1	S 181.975 Axial†	515.2	504.7	[2000]	µg/L	05:34:30
1	Sb 206.836†	1157.2	1149.1	[1000]	µg/L	05:34:30
1	Se 196.026†	741.2	732.9	[1000]	µg/L	05:34:30
1	SiO2†	54798.0	54244.1	[10695]	µg/L	05:34:09
1	Si 251.611†	65636.4	66224.1	[5000]	µg/L	05:34:09
1	Sn 189.927†	2447.4	2480.0	[1000]	µg/L	05:34:30
1	Ti 334.940†	437069.8	442852.8	[1000]	µg/L	05:34:04
1	Tl 190.801†	755.6	789.5	[1000]	µg/L	05:34:30
1	U 409.014†	11903.0	12152.2	[1000]	µg/L	05:34:09
1	V 292.402†	101932.2	103348.8	[1000]	µg/L	05:34:09
1	Zn 213.857†	43937.9	44064.8	[1000]	µg/L	05:34:09
2	Sc RADIAL	57696.9	57696.9	101	%	05:33:05
2	Al 396.153Radial†	14605.6	14523.0	[10000]	µg/L	05:33:05
2	Ca 317.933Radial†	11714.2	11441.6	[10000]	µg/L	05:33:26
2	Fe 238.204 Radial†	1304.4	1281.2	[10000]	µg/L	05:33:26
2	K 766.490 Radial†	15107.6	14830.5	[10000]	µg/L	05:33:05
2	Mg 279.077 IEC†	1181.9	1162.4	[10000]	µg/L	05:33:26
2	Na 589.592 Radial†	33220.1	32463.2	[10000]	µg/L	05:33:05
2	Sr 421.552†	104719.6	103927.9	[1000]	µg/L	05:33:05
2	Sc 361.383	1956702.8	1956702.8	98.559	%	05:34:37
2	Y 371.029	1338905.4	1338905.4	98.132	%	05:34:37
2	Ag 328.068†	132601.0	135100.4	[1000]	µg/L	05:34:43
2	As 188.979†	570.7	577.3	[1000]	µg/L	05:35:03
2	B 249.677†	24763.8	24831.5	[1000]	µg/L	05:34:43
2	Ba 233.527†	41109.8	41736.7	[1000]	µg/L	05:34:43
2	Be 313.107†	1616969.6	1644206.3	[1000]	µg/L	05:34:37
2	Cd 226.502†	38856.1	39570.3	[1000]	µg/L	05:34:43
2	Co 228.616†	21849.9	22178.2	[1000]	µg/L	05:34:43
2	Cr 267.716†	49231.9	50000.1	[1000]	µg/L	05:34:43
2	Cu 324.752†	156692.3	156538.6	[1000]	µg/L	05:34:43
2	Mn 257.610†	311220.0	316034.0	[1000]	µg/L	05:34:43
2	Mo 202.031†	10409.0	10566.0	[1000]	µg/L	05:35:03
2	Ni 231.604†	19935.1	19924.0	[1000]	µg/L	05:34:43
2	P 214.914†	2624.4	2636.2	[5000]	µg/L	05:35:03
2	Pb 220.353†	4229.2	4204.1	[1000]	µg/L	05:35:03

2	S 181.975 Axial†	514.8	504.9	[2000]	µg/L	05:35:03
2	Sb 206.836†	1158.4	1151.6	[1000]	µg/L	05:35:03
2	Se 196.026†	746.1	738.7	[1000]	µg/L	05:35:03
2	SiO2†	54279.0	53781.5	[10695]	µg/L	05:34:43
2	Si 251.611†	65110.4	65767.1	[5000]	µg/L	05:34:43
2	Sn 189.927†	2437.9	2473.2	[1000]	µg/L	05:35:03
2	Ti 334.940†	437762.7	444066.5	[1000]	µg/L	05:34:37
2	Tl 190.801†	753.5	788.2	[1000]	µg/L	05:35:03
2	U 409.014†	11903.5	12166.6	[1000]	µg/L	05:34:43
2	V 292.402†	100976.9	102498.6	[1000]	µg/L	05:34:43
2	Zn 213.857†	43526.6	43698.9	[1000]	µg/L	05:34:43
3	Sc RADIAL	58071.7	58071.7	101	%	05:33:31
3	Al 396.153Radial†	14383.6	14210.4	[10000]	µg/L	05:33:31
3	Ca 317.933Radial†	11703.2	11355.7	[10000]	µg/L	05:33:52
3	Fe 238.204 Radial†	1295.0	1263.6	[10000]	µg/L	05:33:52
3	K 766.490 Radial†	14983.3	14611.2	[10000]	µg/L	05:33:31
3	Mg 279.077 IEC†	1178.7	1151.7	[10000]	µg/L	05:33:52
3	Na 589.592 Radial†	32789.5	31825.7	[10000]	µg/L	05:33:31
3	Sr 421.552†	103304.1	101860.9	[1000]	µg/L	05:33:31
3	Sc 361.383	1974725.8	1974725.8	99.467	%	05:35:10
3	Y 371.029	1351879.1	1351879.1	99.082	%	05:35:10
3	Ag 328.068†	127230.4	128473.1	[1000]	µg/L	05:35:16
3	As 188.979†	489.0	489.8	[1000]	µg/L	05:35:36
3	B 249.677†	23742.7	23575.7	[1000]	µg/L	05:35:16
3	Ba 233.527†	38639.9	38873.0	[1000]	µg/L	05:35:16
3	Be 313.107†	1561080.0	1573043.7	[1000]	µg/L	05:35:10
3	Cd 226.502†	36563.2	36905.3	[1000]	µg/L	05:35:16
3	Co 228.616†	20313.3	20431.0	[1000]	µg/L	05:35:16
3	Cr 267.716†	44790.0	45078.5	[1000]	µg/L	05:35:16
3	Cu 324.752†	146050.9	144389.2	[1000]	µg/L	05:35:16
3	Mn 257.610†	289615.1	291431.4	[1000]	µg/L	05:35:16
3	Mo 202.031†	8758.1	8809.9	[1000]	µg/L	05:35:36
3	Ni 231.604†	18663.5	18461.0	[1000]	µg/L	05:35:16
3	P 214.914†	2258.1	2243.6	[5000]	µg/L	05:35:36
3	Pb 220.353†	3714.4	3647.4	[1000]	µg/L	05:35:36
3	S 181.975 Axial†	459.1	444.1	[2000]	µg/L	05:35:36
3	Sb 206.836†	996.5	978.2	[1000]	µg/L	05:35:36
3	Se 196.026†	654.8	640.0	[1000]	µg/L	05:35:36
3	SiO2†	51564.3	50549.7	[10695]	µg/L	05:35:16
3	Si 251.611†	61706.4	61741.9	[5000]	µg/L	05:35:16
3	Sn 189.927†	2022.6	2033.1	[1000]	µg/L	05:35:36
3	Ti 334.940†	420544.4	422702.1	[1000]	µg/L	05:35:10
3	Tl 190.801†	682.4	709.8	[1000]	µg/L	05:35:36
3	U 409.014†	10859.0	11006.3	[1000]	µg/L	05:35:16
3	V 292.402†	93367.5	93913.4	[1000]	µg/L	05:35:16
3	Zn 213.857†	40641.6	40395.3	[1000]	µg/L	05:35:16

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Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	1963462.3	9819.44	0.50%	98.900	%
Sc RADIAL	57804.8	232.50	0.40%	101	%
Y 371.029	1343849.7	7015.51	0.52%	98.494	%
Ag 328.068†	133185.2	4104.56	3.08%	[1000]	µg/L
Al 396.153Radial†	14313.7	181.25	1.27%	[10000]	µg/L
As 188.979†	549.2	51.47	9.37%	[1000]	µg/L
B 249.677†	24498.6	809.60	3.30%	[1000]	µg/L
Ba 233.527†	40901.7	1766.06	4.32%	[1000]	µg/L
Be 313.107†	1618601.4	39555.15	2.44%	[1000]	µg/L
Ca 317.933Radial†	11417.6	54.09	0.47%	[10000]	µg/L
Cd 226.502†	38801.8	1652.22	4.26%	[1000]	µg/L
Co 228.616†	21660.0	1068.66	4.93%	[1000]	µg/L
Cr 267.716†	48487.6	2958.61	6.10%	[1000]	µg/L
Cu 324.752†	152863.0	7360.00	4.81%	[1000]	µg/L
Fe 238.204 Radial†	1274.1	9.32	0.73%	[10000]	µg/L
K 766.490 Radial†	14683.7	127.15	0.87%	[10000]	µg/L
Mg 279.077 IEC†	1157.5	5.41	0.47%	[10000]	µg/L
Mn 257.610†	308590.8	14903.85	4.83%	[1000]	µg/L
Mo 202.031†	9993.7	1025.38	10.26%	[1000]	µg/L
Na 589.592 Radial†	32059.2	351.33	1.10%	[10000]	µg/L

Ni 231.604†	19499.9	904.83	4.64%	[1000] µg/L
P 214.914†	2507.5	228.57	9.12%	[5000] µg/L
Pb 220.353†	4019.6	322.34	8.02%	[1000] µg/L
S 181.975 Axial†	484.5	35.03	7.23%	[2000] µg/L
Sb 206.836†	1093.0	99.43	9.10%	[1000] µg/L
Se 196.026†	703.8	55.38	7.87%	[1000] µg/L
SiO2†	52858.4	2012.78	3.81%	[10695] µg/L
Si 251.611†	64577.7	2466.47	3.82%	[5000] µg/L
Sn 189.927†	2328.8	256.06	11.00%	[1000] µg/L
Sr 421.552†	102515.7	1224.03	1.19%	[1000] µg/L
Ti 334.940†	436540.5	11999.71	2.75%	[1000] µg/L
Tl 190.801†	762.5	45.64	5.99%	[1000] µg/L
U 409.014†	11775.0	665.79	5.65%	[1000] µg/L
V 292.402†	99920.3	5219.46	5.22%	[1000] µg/L
Zn 213.857†	42719.7	2021.25	4.73%	[1000] µg/L

Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 2/12/2010 05:35:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc RADIAL	57424.3	57424.3	100 %		05:36:18
1	Al 396.153Radial†	72203.4	72039.5	[50000] µg/L		05:36:18
1	Ca 317.933Radial†	58084.6	57746.3	[50000] µg/L		05:36:18
1	Fe 238.204 Radial†	2542.9	2522.6	[20000] µg/L		05:36:38
1	Mg 279.077 IEC†	5660.9	5635.3	[50000] µg/L		05:36:38
1	Na 589.592 Radial†	65134.7	64451.2	[20000] µg/L		05:36:18
1	Sc 361.383	1947213.5	1947213.5	98.081 %		05:37:42
1	Y 371.029	1328671.1	1328671.1	97.382 %		05:37:42
2	Sc RADIAL	57300.1	57300.1	100 %		05:36:44
2	Al 396.153Radial†	72025.4	72017.6	[50000] µg/L		05:36:44
2	Ca 317.933Radial†	57998.0	57785.4	[50000] µg/L		05:36:44
2	Fe 238.204 Radial†	2552.6	2537.7	[20000] µg/L		05:37:04
2	Mg 279.077 IEC†	5670.0	5656.6	[50000] µg/L		05:37:04
2	Na 589.592 Radial†	65058.4	64515.7	[20000] µg/L		05:36:44
2	Sc 361.383	1961916.6	1961916.6	98.822 %		05:37:50
2	Y 371.029	1337422.1	1337422.1	98.023 %		05:37:50
3	Sc RADIAL	57713.9	57713.9	101 %		05:37:10
3	Al 396.153Radial†	71981.8	71458.1	[50000] µg/L		05:37:10
3	Ca 317.933Radial†	58082.9	57454.0	[50000] µg/L		05:37:10
3	Fe 238.204 Radial†	2555.4	2522.2	[20000] µg/L		05:37:30
3	Mg 279.077 IEC†	5691.5	5637.3	[50000] µg/L		05:37:30
3	Na 589.592 Radial†	64982.7	63974.3	[20000] µg/L		05:37:10
3	Sc 361.383	1952791.8	1952791.8	98.362 %		05:37:58
3	Y 371.029	1332050.3	1332050.3	97.629 %		05:37:58

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	1953974.0	7422.51	0.38%	98.422 %	
Sc RADIAL	57479.5	212.35	0.37%	100 %	
Y 371.029	1332714.5	4413.15	0.33%	97.678 %	
Al 396.153Radial†	71838.4	329.51	0.46%	[50000] µg/L	
Ca 317.933Radial†	57661.9	181.13	0.31%	[50000] µg/L	
Fe 238.204 Radial†	2527.5	8.86	0.35%	[20000] µg/L	
Mg 279.077 IEC†	5643.1	11.75	0.21%	[50000] µg/L	
Na 589.592 Radial†	64313.7	295.72	0.46%	[20000] µg/L	

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	131.8	0.00000	0.999759	
Al 396.153Radial	3	Lin Thru 0	0.0	1.436	0.00000	0.999974	
As 188.979	3	Lin Thru 0	0.0	0.5440	0.00000	0.999817	
B 249.677	3	Lin Thru 0	0.0	24.26	0.00000	0.999807	
Ba 233.527	3	Lin Thru 0	0.0	40.54	0.00000	0.999832	
Be 313.107	3	Lin Thru 0	0.0	1609	0.00000	0.999931	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.152	0.00000	0.999973	
Cd 226.502	3	Lin Thru 0	0.0	38.51	0.00000	0.999867	
Co 228.616	3	Lin Thru 0	0.0	21.50	0.00000	0.999884	
Cr 267.716	3	Lin Thru 0	0.0	48.05	0.00000	0.999818	
Cu 324.752	3	Lin Thru 0	0.0	151.4	0.00000	0.999791	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1266	0.00000	0.999995	
K 766.490 Radial	3	Lin Thru 0	0.0	1.453	0.00000	0.999770	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1129	0.00000	0.999977	
Mn 257.610	3	Lin Thru 0	0.0	307.5	0.00000	0.999967	
Mo 202.031	3	Lin Thru 0	0.0	9.908	0.00000	0.999824	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.214	0.00000	0.999999	



Ni 231.604	3	Lin Thru 0	0.0	19.37	0.00000	0.999886
P 214.914	3	Lin Thru 0	0.0	0.4978	0.00000	0.999874
Pb 220.353	3	Lin Thru 0	0.0	3.991	0.00000	0.999871
S 181.975 Axial	3	Lin Thru 0	0.0	0.2404	0.00000	0.999885
Sb 206.836	3	Lin Thru 0	0.0	1.080	0.00000	0.999701
Se 196.026	3	Lin Thru 0	0.0	0.6963	0.00000	0.999774
SiO2	3	Lin Thru 0	0.0	4.896	0.00000	0.999815
Si 251.611	3	Lin Thru 0	0.0	12.80	0.00000	0.999818
Sn 189.927	3	Lin Thru 0	0.0	2.311	0.00000	0.999850
Sr 421.552	3	Lin Thru 0	0.0	101.3	0.00000	0.999727
Ti 334.940	3	Lin Thru 0	0.0	433.1	0.00000	0.999868
Tl 190.801	3	Lin Thru 0	0.0	0.7573	0.00000	0.999906
U 409.014	3	Lin Thru 0	0.0	11.72	0.00000	0.999941
V 292.402	3	Lin Thru 0	0.0	98.93	0.00000	0.999790
Zn 213.857	3	Lin Thru 0	0.0	42.42	0.00000	0.999880

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 2/12/2010 05:38:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57149.8	57149.8	99.8 %		05:38:39
1	Al 396.153Radial†	7055.0	7094.7	4930.7 µg/L	4930.7 ppb	05:38:39
1	Ca 317.933Radial†	5722.4	5548.0	4816.1 µg/L	4816.1 ppb	05:39:00
1	Fe 238.204 Radial†	641.0	628.7	4977.2 µg/L	4977.2 ppb	05:39:00
1	K 766.490 Radial†	3666.1	3507.6	2414.4 µg/L	2414.4 ppb	05:38:39
1	Mg 279.077 IEC†	588.2	578.6	5128.0 µg/L	5128.0 ppb	05:39:00
1	Na 589.592 Radial†	8298.7	7803.0	2428.0 µg/L	2428.0 ppb	05:38:39
1	Sr 421.552†	52286.9	52375.8	516.85 µg/L	516.85 ppb	05:38:39
1	Sc 361.383	1965129.6	1965129.6	98.984 %		05:40:04
1	Y 371.029	1347696.3	1347696.3	98.776 %		05:40:04
1	Ag 328.068†	32756.3	33653.7	259.06 µg/L	259.06 ppb	05:40:09
1	As 188.979†	266.5	267.4	490.51 µg/L	490.51 ppb	05:40:30
1	B 249.677†	12527.3	12361.7	507.79 µg/L	507.79 ppb	05:40:09
1	Ba 233.527†	20076.9	20309.1	501.85 µg/L	501.85 ppb	05:40:09
1	Be 313.107†	409479.9	417284.3	259.11 µg/L	259.11 ppb	05:40:04
1	Cd 226.502†	18794.7	19133.8	496.85 µg/L	496.85 ppb	05:40:09
1	Co 228.616†	10762.2	10881.6	505.56 µg/L	505.56 ppb	05:40:09
1	Cr 267.716†	23222.1	23509.1	489.54 µg/L	489.54 ppb	05:40:09
1	Cu 324.752†	77647.9	76000.9	502.64 µg/L	502.64 ppb	05:40:09
1	Mn 257.610†	155356.3	157216.0	511.65 µg/L	511.65 ppb	05:40:04
1	Mo 202.031†	5424.4	5485.0	553.78 µg/L	553.78 ppb	05:40:30
1	Ni 231.604†	9916.7	9716.0	501.12 µg/L	501.12 ppb	05:40:09
1	P 214.914†	1282.0	1268.6	2501.1 µg/L	2501.1 ppb	05:40:30
1	Pb 220.353†	2087.4	2021.9	506.89 µg/L	506.89 ppb	05:40:30
1	S 181.975 Axial†	621.6	610.6	2539.3 µg/L	2539.3 ppb	05:40:30
1	Sb 206.836†	580.7	563.0	524.40 µg/L	524.40 ppb	05:40:30
1	Se 196.026†	1794.1	1794.2	2584.4 µg/L	2584.4 ppb	05:40:30
1	SiO2†	51564.1	50802.6	10376 µg/L	10376 ppb	05:40:09
1	Si 251.611†	61464.3	61800.3	4829.7 µg/L	4829.7 ppb	05:40:09
1	Sn 189.927†	1272.4	1285.2	556.29 µg/L	556.29 ppb	05:40:30
1	Ti 334.940†	212367.5	214452.5	494.87 µg/L	494.87 ppb	05:40:04
1	Tl 190.801†	370.8	398.4	531.97 µg/L	531.97 ppb	05:40:30
1	U 409.014†	5625.8	5772.7	491.56 µg/L	491.56 ppb	05:40:09
1	V 292.402†	49442.8	49996.2	511.84 µg/L	511.84 ppb	05:40:09
1	Zn 213.857†	21852.0	21612.3	505.95 µg/L	505.95 ppb	05:40:09
2	Sc RADIAL	57628.3	57628.3	101 %		05:39:05
2	Al 396.153Radial†	7010.0	6991.2	4858.8 µg/L	4858.8 ppb	05:39:05
2	Ca 317.933Radial†	5669.6	5447.9	4729.1 µg/L	4729.1 ppb	05:39:26
2	Fe 238.204 Radial†	638.3	620.7	4914.4 µg/L	4914.4 ppb	05:39:26
2	K 766.490 Radial†	3774.5	3584.9	2467.5 µg/L	2467.5 ppb	05:39:05
2	Mg 279.077 IEC†	581.1	566.7	5022.9 µg/L	5022.9 ppb	05:39:26
2	Na 589.592 Radial†	8261.6	7697.1	2395.1 µg/L	2395.1 ppb	05:39:05
2	Sr 421.552†	52214.9	51869.0	511.85 µg/L	511.85 ppb	05:39:05
2	Sc 361.383	1968678.4	1968678.4	99.163 %		05:40:37
2	Y 371.029	1349955.2	1349955.2	98.941 %		05:40:37
2	Ag 328.068†	32753.9	33591.6	258.58 µg/L	258.58 ppb	05:40:43
2	As 188.979†	261.4	261.8	480.22 µg/L	480.22 ppb	05:41:03
2	B 249.677†	12563.0	12374.8	508.36 µg/L	508.36 ppb	05:40:43
2	Ba 233.527†	20127.4	20323.4	502.20 µg/L	502.20 ppb	05:40:43
2	Be 313.107†	407159.6	414198.7	257.19 µg/L	257.19 ppb	05:40:37
2	Cd 226.502†	18871.8	19177.4	497.99 µg/L	497.99 ppb	05:40:43
2	Co 228.616†	10773.2	10873.0	505.17 µg/L	505.17 ppb	05:40:43
2	Cr 267.716†	23237.0	23481.8	488.98 µg/L	488.98 ppb	05:40:43
2	Cu 324.752†	77850.1	76063.5	503.04 µg/L	503.04 ppb	05:40:43
2	Mn 257.610†	154662.4	156233.3	508.45 µg/L	508.45 ppb	05:40:37
2	Mo 202.031†	5388.9	5439.2	549.16 µg/L	549.16 ppb	05:41:03
2	Ni 231.604†	9889.7	9670.7	498.78 µg/L	498.78 ppb	05:40:43
2	P 214.914†	1285.8	1270.0	2503.9 µg/L	2503.9 ppb	05:41:03
2	Pb 220.353†	2082.7	2013.4	504.73 µg/L	504.73 ppb	05:41:03

2	S 181.975 Axial†	617.8	605.6	2518.9 µg/L	2518.9 ppb	05:41:03
2	Sb 206.836†	568.6	549.7	512.01 µg/L	512.01 ppb	05:41:03
2	Se 196.026†	1793.0	1789.8	2578.2 µg/L	2578.2 ppb	05:41:03
2	SiO2†	51722.0	50867.9	10390 µg/L	10390 ppb	05:40:43
2	Si 251.611†	61570.3	61795.2	4829.3 µg/L	4829.3 ppb	05:40:43
2	Sn 189.927†	1268.1	1278.6	553.41 µg/L	553.41 ppb	05:41:03
2	Ti 334.940†	211357.2	213046.9	491.63 µg/L	491.63 ppb	05:40:37
2	Tl 190.801†	368.9	395.8	528.51 µg/L	528.51 ppb	05:41:03
2	U 409.014†	5682.5	5819.7	495.57 µg/L	495.57 ppb	05:40:43
2	V 292.402†	49516.8	49980.7	511.65 µg/L	511.65 ppb	05:40:43
2	Zn 213.857†	21901.4	21622.4	506.21 µg/L	506.21 ppb	05:40:43
3	Sc RADIAL	57514.7	57514.7	100 %		05:39:32
3	Al 396.153Radial†	7015.8	7010.8	4874.2 µg/L	4874.2 ppb	05:39:32
3	Ca 317.933Radial†	5671.8	5461.3	4740.7 µg/L	4740.7 ppb	05:39:52
3	Fe 238.204 Radial†	641.3	624.9	4946.4 µg/L	4946.4 ppb	05:39:52
3	K 766.490 Radial†	3813.0	3630.6	2499.0 µg/L	2499.0 ppb	05:39:32
3	Mg 279.077 IEC†	591.1	577.8	5119.2 µg/L	5119.2 ppb	05:39:52
3	Na 589.592 Radial†	8302.4	7754.0	2412.8 µg/L	2412.8 ppb	05:39:32
3	Sr 421.552†	52461.9	52217.6	515.29 µg/L	515.29 ppb	05:39:32
3	Sc 361.383	1981717.3	1981717.3	99.819 %		05:41:10
3	Y 371.029	1359109.7	1359109.7	99.612 %		05:41:10
3	Ag 328.068†	31262.1	31879.7	245.31 µg/L	245.31 ppb	05:41:16
3	As 188.979†	231.5	230.1	422.01 µg/L	422.01 ppb	05:41:37
3	B 249.677†	11926.1	11653.4	478.53 µg/L	478.53 ppb	05:41:16
3	Ba 233.527†	18829.4	18889.5	466.76 µg/L	466.76 ppb	05:41:16
3	Be 313.107†	392081.7	396392.0	246.14 µg/L	246.14 ppb	05:41:10
3	Cd 226.502†	17486.3	17664.2	458.65 µg/L	458.65 ppb	05:41:16
3	Co 228.616†	9973.9	10000.8	464.57 µg/L	464.57 ppb	05:41:16
3	Cr 267.716†	21104.2	21190.9	441.28 µg/L	441.28 ppb	05:41:16
3	Cu 324.752†	72324.8	70011.5	463.08 µg/L	463.08 ppb	05:41:16
3	Mn 257.610†	148991.3	149525.7	486.64 µg/L	486.64 ppb	05:41:10
3	Mo 202.031†	4566.8	4579.9	462.43 µg/L	462.43 ppb	05:41:37
3	Ni 231.604†	9197.7	8911.8	459.64 µg/L	459.64 ppb	05:41:16
3	P 214.914†	1112.7	1088.1	2141.2 µg/L	2141.2 ppb	05:41:37
3	Pb 220.353†	1832.8	1749.2	438.41 µg/L	438.41 ppb	05:41:37
3	S 181.975 Axial†	550.5	534.1	2221.3 µg/L	2221.3 ppb	05:41:37
3	Sb 206.836†	493.6	470.8	438.10 µg/L	438.10 ppb	05:41:37
3	Se 196.026†	1578.6	1563.1	2252.6 µg/L	2252.6 ppb	05:41:37
3	SiO2†	48632.1	47429.2	9687.3 µg/L	9687.3 ppb	05:41:16
3	Si 251.611†	58037.4	57847.4	4520.8 µg/L	4520.8 ppb	05:41:16
3	Sn 189.927†	1061.2	1062.8	460.04 µg/L	460.04 ppb	05:41:37
3	Ti 334.940†	202744.1	203015.8	468.46 µg/L	468.46 ppb	05:41:10
3	Tl 190.801†	340.6	364.9	487.56 µg/L	487.56 ppb	05:41:37
3	U 409.014†	5144.3	5242.8	446.35 µg/L	446.35 ppb	05:41:16
3	V 292.402†	45627.5	45755.8	468.12 µg/L	468.12 ppb	05:41:16
3	Zn 213.857†	20328.7	19901.5	465.87 µg/L	465.87 ppb	05:41:16

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1971841.8	99.322 %	0.4400			0.44%
Sc RADIAL	57430.9	100 %	0.4			0.44%
Y 371.029	1352253.7	99.110 %	0.4430			0.45%
Ag 328.068†	33041.7	254.32 µg/L	7.804	254.32 ppb	7.804	3.07%
QC value within limits for Ag 328.068 Recovery = 101.73%						
Al 396.153Radial†	7032.2	4887.9 µg/L	37.89	4887.9 ppb	37.89	0.78%
QC value within limits for Al 396.153Radial Recovery = 97.76%						
As 188.979†	253.1	464.25 µg/L	36.936	464.25 ppb	36.936	7.96%
QC value within limits for As 188.979 Recovery = 92.85%						
B 249.677†	12130.0	498.23 µg/L	17.061	498.23 ppb	17.061	3.42%
QC value within limits for B 249.677 Recovery = 99.65%						
Ba 233.527†	19840.7	490.27 µg/L	20.363	490.27 ppb	20.363	4.15%
QC value within limits for Ba 233.527 Recovery = 98.05%						
Be 313.107†	409291.7	254.15 µg/L	7.002	254.15 ppb	7.002	2.76%
QC value within limits for Be 313.107 Recovery = 101.66%						
Ca 317.933Radial†	5485.7	4762.0 µg/L	47.20	4762.0 ppb	47.20	0.99%
QC value within limits for Ca 317.933Radial Recovery = 95.24%						
Cd 226.502†	18658.5	484.50 µg/L	22.393	484.50 ppb	22.393	4.62%
QC value within limits for Cd 226.502 Recovery = 96.90%						
Co 228.616†	10585.1	491.77 µg/L	23.552	491.77 ppb	23.552	4.79%

QC value within limits for Co 228.616	Recovery = 98.35%			
Cr 267.716†	22727.3	473.27 µg/L	27.705	473.27 ppb
QC value within limits for Cr 267.716	Recovery = 94.65%			
Cu 324.752†	74025.3	489.59 µg/L	22.958	489.59 ppb
QC value within limits for Cu 324.752	Recovery = 97.92%			
Fe 238.204 Radial†	624.8	4946.0 µg/L	31.42	4946.0 ppb
QC value within limits for Fe 238.204 Radial	Recovery = 98.92%			
K 766.490 Radial†	3574.4	2460.3 µg/L	42.77	2460.3 ppb
QC value within limits for K 766.490 Radial	Recovery = 98.41%			
Mg 279.077 IEC†	574.4	5090.0 µg/L	58.34	5090.0 ppb
QC value within limits for Mg 279.077 IEC	Recovery = 101.80%			
Mn 257.610†	154325.0	502.25 µg/L	13.610	502.25 ppb
QC value within limits for Mn 257.610	Recovery = 100.45%			
Mo 202.031†	5168.0	521.79 µg/L	51.460	521.79 ppb
QC value within limits for Mo 202.031	Recovery = 104.36%			
Na 589.592 Radial†	7751.4	2411.9 µg/L	16.50	2411.9 ppb
QC value within limits for Na 589.592 Radial	Recovery = 96.48%			
Ni 231.604†	9432.9	486.51 µg/L	23.298	486.51 ppb
QC value within limits for Ni 231.604	Recovery = 97.30%			
P 214.914†	1208.9	2382.1 µg/L	208.62	2382.1 ppb
QC value within limits for P 214.914	Recovery = 95.28%			
Pb 220.353†	1928.1	483.35 µg/L	38.929	483.35 ppb
QC value within limits for Pb 220.353	Recovery = 96.67%			
S 181.975 Axial†	583.4	2426.5 µg/L	178.03	2426.5 ppb
QC value within limits for S 181.975 Axial	Recovery = 97.06%			
Sb 206.836†	527.9	491.50 µg/L	46.662	491.50 ppb
QC value within limits for Sb 206.836	Recovery = 98.30%			
Se 196.026†	1715.7	2471.7 µg/L	189.83	2471.7 ppb
QC value within limits for Se 196.026	Recovery = 98.87%			
SiO2†	49699.9	10151 µg/L	401.7	10151 ppb
QC value within limits for SiO2	Recovery = 94.91%			
Si 251.611†	60481.0	4726.6 µg/L	178.24	4726.6 ppb
QC value within limits for Si 251.611	Recovery = 94.53%			
Sn 189.927†	1208.9	523.24 µg/L	54.756	523.24 ppb
QC value within limits for Sn 189.927	Recovery = 104.65%			
Sr 421.552†	52154.1	514.66 µg/L	2.558	514.66 ppb
QC value within limits for Sr 421.552	Recovery = 102.93%			
Ti 334.940†	210171.7	484.99 µg/L	14.404	484.99 ppb
QC value within limits for Ti 334.940	Recovery = 97.00%			
Tl 190.801†	386.4	516.01 µg/L	24.704	516.01 ppb
QC value within limits for Tl 190.801	Recovery = 103.20%			
U 409.014†	5611.7	477.83 µg/L	27.334	477.83 ppb
QC value within limits for U 409.014	Recovery = 95.57%			
V 292.402†	48577.5	497.20 µg/L	25.189	497.20 ppb
QC value within limits for V 292.402	Recovery = 99.44%			
Zn 213.857†	21045.4	492.67 µg/L	23.216	492.67 ppb
QC value within limits for Zn 213.857	Recovery = 98.53%			

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 2/12/2010 05:41:46

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55581.4	55581.4	97.0 %		05:42:19
1	Al 396.153Radial†	6.6	31.1	21.628 µg/L	21.628 ppb	05:42:19
1	Ca 317.933Radial†	197.6	16.8	14.558 µg/L	14.558 ppb	05:42:40
1	Fe 238.204 Radial†	16.2	3.0	24.019 µg/L	24.019 ppb	05:42:40
1	K 766.490 Radial†	233.9	74.6	51.325 µg/L	51.325 ppb	05:42:19
1	Mg 279.077 IEC†	11.9	1.4	12.605 µg/L	12.605 ppb	05:42:40
1	Na 589.592 Radial†	556.9	60.0	18.682 µg/L	18.682 ppb	05:42:19
1	Sr 421.552†	73.6	50.4	0.4971 µg/L	0.4971 ppb	05:42:19
1	Sc 361.383	1945565.0	1945565.0	97.998 %		05:43:41
1	Y 371.029	1338606.8	1338606.8	98.110 %		05:43:41
1	Ag 328.068†	-509.2	41.4	0.3154 µg/L	0.3154 ppb	05:43:47
1	As 188.979†	-0.1	-1.9	-3.5051 µg/L	-3.5051 ppb	05:44:08
1	B 249.677†	357.8	70.9	2.9108 µg/L	2.9108 ppb	05:44:08
1	Ba 233.527†	-8.5	17.4	0.4288 µg/L	0.4288 ppb	05:44:08
1	Be 313.107†	-3256.8	277.0	0.1720 µg/L	0.1720 ppb	05:43:47
1	Cd 226.502†	-125.3	18.4	0.4749 µg/L	0.4749 ppb	05:44:08
1	Co 228.616†	3.5	12.5	0.5803 µg/L	0.5803 ppb	05:44:08
1	Cr 267.716†	-30.6	17.3	0.3602 µg/L	0.3602 ppb	05:44:08
1	Cu 324.752†	2516.6	123.8	0.8213 µg/L	0.8213 ppb	05:43:47
1	Mn 257.610†	-125.1	137.0	0.4481 µg/L	0.4481 ppb	05:44:08
1	Mo 202.031†	-1.3	3.5	0.3576 µg/L	0.3576 ppb	05:44:08
1	Ni 231.604†	313.2	17.1	0.8828 µg/L	0.8828 ppb	05:44:08
1	P 214.914†	25.6	-0.5	-1.1165 µg/L	-1.1165 ppb	05:44:08
1	Pb 220.353†	91.7	6.6	1.6572 µg/L	1.6572 ppb	05:44:08
1	S 181.975 Axial†	13.3	-3.9	-16.030 µg/L	-16.030 ppb	05:44:08
1	Sb 206.836†	17.5	-5.8	-5.3826 µg/L	-5.3826 ppb	05:44:08
1	Se 196.026†	19.3	1.3	1.9188 µg/L	1.9188 ppb	05:44:08
1	SiO2†	1287.7	23.1	4.7081 µg/L	4.7081 ppb	05:43:47
1	Si 251.611†	366.7	79.1	6.1801 µg/L	6.1801 ppb	05:44:08
1	Sn 189.927†	0.5	0.3	0.1093 µg/L	0.1093 ppb	05:44:08
1	Ti 334.940†	218.7	127.8	0.2944 µg/L	0.2944 ppb	05:43:47
1	Tl 190.801†	-25.9	-2.7	-3.5728 µg/L	-3.5728 ppb	05:44:08
1	U 409.014†	-71.6	16.0	1.3618 µg/L	1.3618 ppb	05:43:47
1	V 292.402†	-49.5	-4.8	-0.0412 µg/L	-0.0412 ppb	05:43:47
1	Zn 213.857†	505.4	51.7	1.2121 µg/L	1.2121 ppb	05:44:08
2	Sc RADIAL	56491.2	56491.2	98.6 %		05:42:45
2	Al 396.153Radial†	-1.6	22.6	15.743 µg/L	15.743 ppb	05:42:45
2	Ca 317.933Radial†	191.7	7.5	6.4905 µg/L	6.4905 ppb	05:43:06
2	Fe 238.204 Radial†	17.4	3.9	31.149 µg/L	31.149 ppb	05:43:06
2	K 766.490 Radial†	232.7	69.4	47.751 µg/L	47.751 ppb	05:42:45
2	Mg 279.077 IEC†	13.7	3.1	27.134 µg/L	27.134 ppb	05:43:06
2	Na 589.592 Radial†	507.3	0.6	0.1816 µg/L	0.1816 ppb	05:42:45
2	Sr 421.552†	5.1	-20.2	-0.1997 µg/L	-0.1997 ppb	05:42:45
2	Sc 361.383	1959098.7	1959098.7	98.680 %		05:44:14
2	Y 371.029	1347538.0	1347538.0	98.764 %		05:44:14
2	Ag 328.068†	-464.6	90.3	0.6859 µg/L	0.6859 ppb	05:44:19
2	As 188.979†	0.3	-1.5	-2.7898 µg/L	-2.7898 ppb	05:44:40
2	B 249.677†	354.3	64.8	2.6557 µg/L	2.6557 ppb	05:44:40
2	Ba 233.527†	-14.9	10.9	0.2692 µg/L	0.2692 ppb	05:44:40
2	Be 313.107†	-3156.1	402.0	0.2497 µg/L	0.2497 ppb	05:44:19
2	Cd 226.502†	-131.7	12.7	0.3271 µg/L	0.3271 ppb	05:44:40
2	Co 228.616†	11.9	20.9	0.9742 µg/L	0.9742 ppb	05:44:40
2	Cr 267.716†	-37.9	10.1	0.2106 µg/L	0.2106 ppb	05:44:40
2	Cu 324.752†	2510.9	100.4	0.6671 µg/L	0.6671 ppb	05:44:19
2	Mn 257.610†	-174.4	88.0	0.2891 µg/L	0.2891 ppb	05:44:40
2	Mo 202.031†	5.1	10.0	1.0154 µg/L	1.0154 ppb	05:44:40
2	Ni 231.604†	320.9	22.7	1.1709 µg/L	1.1709 ppb	05:44:40
2	P 214.914†	21.4	-4.9	-10.007 µg/L	-10.007 ppb	05:44:40
2	Pb 220.353†	100.6	15.1	3.7729 µg/L	3.7729 ppb	05:44:40

2	S 181.975 Axial†	16.8	-0.4	-1.8507 µg/L	-1.8507 ppb	05:44:40
2	Sb 206.836†	23.3	-0.0	-0.0242 µg/L	-0.0242 ppb	05:44:40
2	Se 196.026†	19.6	1.5	2.1879 µg/L	2.1879 ppb	05:44:40
2	SiO2†	1329.3	56.2	11.473 µg/L	11.473 ppb	05:44:19
2	Si 251.611†	352.2	61.9	4.8340 µg/L	4.8340 ppb	05:44:40
2	Sn 189.927†	4.4	4.1	1.7806 µg/L	1.7806 ppb	05:44:40
2	Ti 334.940†	179.0	86.1	0.1967 µg/L	0.1967 ppb	05:44:19
2	Tl 190.801†	-26.4	-3.0	-3.9597 µg/L	-3.9597 ppb	05:44:40
2	U 409.014†	-38.7	49.9	4.2553 µg/L	4.2553 ppb	05:44:19
2	V 292.402†	-61.6	-16.7	-0.1528 µg/L	-0.1528 ppb	05:44:19
2	Zn 213.857†	495.5	38.1	0.8883 µg/L	0.8883 ppb	05:44:40
3	Sc RADIAL	56426.5	56426.5	98.5 %		05:43:11
3	Al 396.153Radial†	-17.0	7.0	4.8684 µg/L	4.8684 ppb	05:43:11
3	Ca 317.933Radial†	183.7	-0.4	-0.3717 µg/L	-0.3717 ppb	05:43:31
3	Fe 238.204 Radial†	14.3	0.8	6.1045 µg/L	6.1045 ppb	05:43:31
3	K 766.490 Radial†	234.2	71.2	49.030 µg/L	49.030 ppb	05:43:11
3	Mg 279.077 IEC†	11.1	0.4	3.8084 µg/L	3.8084 ppb	05:43:31
3	Na 589.592 Radial†	563.6	58.3	18.129 µg/L	18.129 ppb	05:43:11
3	Sr 421.552†	64.4	40.0	0.3944 µg/L	0.3944 ppb	05:43:11
3	Sc 361.383	1977070.4	1977070.4	99.585 %		05:44:46
3	Y 371.029	1360459.0	1360459.0	99.711 %		05:44:46
3	Ag 328.068†	-488.2	70.8	0.5384 µg/L	0.5384 ppb	05:44:51
3	As 188.979†	-2.7	-4.5	-8.2764 µg/L	-8.2764 ppb	05:45:12
3	B 249.677†	348.9	56.1	2.3079 µg/L	2.3079 ppb	05:45:12
3	Ba 233.527†	-23.8	2.2	0.0538 µg/L	0.0538 ppb	05:45:12
3	Be 313.107†	-3169.0	418.2	0.2597 µg/L	0.2597 ppb	05:44:51
3	Cd 226.502†	-137.3	8.3	0.2160 µg/L	0.2160 ppb	05:45:12
3	Co 228.616†	1.8	10.7	0.4973 µg/L	0.4973 ppb	05:45:12
3	Cr 267.716†	-44.3	4.0	0.0839 µg/L	0.0839 ppb	05:45:12
3	Cu 324.752†	2540.8	107.2	0.7088 µg/L	0.7088 ppb	05:44:51
3	Mn 257.610†	-220.5	43.3	0.1414 µg/L	0.1414 ppb	05:45:12
3	Mo 202.031†	-2.2	2.6	0.2625 µg/L	0.2625 ppb	05:45:12
3	Ni 231.604†	306.1	4.9	0.2517 µg/L	0.2517 ppb	05:45:12
3	P 214.914†	24.1	-2.4	-4.9291 µg/L	-4.9291 ppb	05:45:12
3	Pb 220.353†	90.7	4.2	1.0492 µg/L	1.0492 ppb	05:45:12
3	S 181.975 Axial†	19.0	1.6	6.7885 µg/L	6.7885 ppb	05:45:12
3	Sb 206.836†	28.4	4.9	4.4993 µg/L	4.4993 ppb	05:45:12
3	Se 196.026†	12.9	-5.4	-7.7849 µg/L	-7.7849 ppb	05:45:12
3	SiO2†	1299.3	13.8	2.8231 µg/L	2.8231 ppb	05:44:51
3	Si 251.611†	339.9	46.2	3.6125 µg/L	3.6125 ppb	05:45:12
3	Sn 189.927†	0.4	0.1	0.0617 µg/L	0.0617 ppb	05:45:12
3	Ti 334.940†	246.4	152.0	0.3507 µg/L	0.3507 ppb	05:44:51
3	Tl 190.801†	-25.2	-1.5	-2.0290 µg/L	-2.0290 ppb	05:45:12
3	U 409.014†	-62.5	26.4	2.2516 µg/L	2.2516 ppb	05:44:51
3	V 292.402†	-33.0	12.5	0.1318 µg/L	0.1318 ppb	05:44:51
3	Zn 213.857†	488.2	26.2	0.6142 µg/L	0.6142 ppb	05:45:12

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1960578.0	98.754 %		0.7961			0.81%
Sc RADIAL	56166.4	98.1 %		0.89			0.90%
Y 371.029	1348867.9	98.862 %		0.8052			0.81%
Ag 328.068†	67.5	0.5133 µg/L		0.18655	0.5133 ppb	0.18655	36.35%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	20.2	14.080 µg/L		8.5028	14.080 ppb	8.5028	60.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-2.6	-4.8571 µg/L		2.98272	-4.8571 ppb	2.98272	61.41%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	63.9	2.6248 µg/L		0.30260	2.6248 ppb	0.30260	11.53%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	10.2	0.2506 µg/L		0.18823	0.2506 ppb	0.18823	75.11%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	365.7	0.2272 µg/L		0.04800	0.2272 ppb	0.04800	21.13%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	7.9	6.8922 µg/L		7.47284	6.8922 ppb	7.47284	108.42%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	13.1	0.3394 µg/L		0.12988	0.3394 ppb	0.12988	38.27%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	14.7	0.6839 µg/L		0.25479	0.6839 ppb	0.25479	37.25%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	10.5	0.2182 µg/L	0.13830 63.38%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	110.5	0.7324 µg/L	0.07973 10.89%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	2.6	20.424 µg/L	12.9033 63.18%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	71.7	49.369 µg/L	1.8107 3.67%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	1.6	14.516 µg/L	11.7794 81.15%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	89.4	0.2929 µg/L	0.15339 52.38%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	5.4	0.5452 µg/L	0.40998 75.20%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	39.6	12.331 µg/L	10.5253 85.36%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	14.9	0.7685 µg/L	0.47011 61.17%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-2.6	-5.3509 µg/L	4.46027 83.36%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	8.6	2.1598 µg/L	1.42972 66.20%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-0.9	-3.6974 µg/L	11.52086 311.59%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	-0.3	-0.3025 µg/L	4.94681 >999.9%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	-0.9	-1.2261 µg/L	5.68172 463.41%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	31.0	6.3347 µg/L	4.54856 71.80%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	62.4	4.8755 µg/L	1.28429 26.34%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	1.5	0.6506 µg/L	0.97898 150.48%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	23.4	0.2306 µg/L	0.37622 163.14%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	122.0	0.2806 µg/L	0.07793 27.77%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-2.4	-3.1872 µg/L	1.02151 32.05%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	30.8	2.6229 µg/L	1.48203 56.50%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-3.0	-0.0207 µg/L	0.14339 691.43%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	38.7	0.9048 µg/L	0.29930 33.08%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 2/12/2010 05:45:21

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55699.3	55699.3	97.2 %		05:45:54
1	Al 396.153Radial†	285.7	318.0	221.35 µg/L	221.35 ppb	05:45:54
1	Ca 317.933Radial†	401.2	225.7	195.94 µg/L	195.94 ppb	05:46:14
1	Fe 238.204 Radial†	29.2	16.4	129.47 µg/L	129.47 ppb	05:46:14
1	K 766.490 Radial†	404.7	249.6	171.83 µg/L	171.83 ppb	05:45:54
1	Mg 279.077 IEC†	45.5	36.0	318.58 µg/L	318.58 ppb	05:46:14
1	Na 589.592 Radial†	1479.9	1008.0	313.66 µg/L	313.66 ppb	05:45:54
1	Sr 421.552†	566.1	556.7	5.4939 µg/L	5.4939 ppb	05:45:54
1	Sc 361.383	1940844.0	1940844.0	97.760 %		05:47:16
1	Y 371.029	1334790.5	1334790.5	97.830 %		05:47:16
1	Ag 328.068†	99.9	663.2	5.0743 µg/L	5.0743 ppb	05:47:22
1	As 188.979†	17.2	15.8	28.940 µg/L	28.940 ppb	05:47:42
1	B 249.677†	1449.3	1188.3	48.926 µg/L	48.926 ppb	05:47:22
1	Ba 233.527†	179.4	209.6	5.1784 µg/L	5.1784 ppb	05:47:42
1	Be 313.107†	4289.8	7988.4	4.9620 µg/L	4.9620 ppb	05:47:22
1	Cd 226.502†	49.3	196.6	5.0969 µg/L	5.0969 ppb	05:47:42
1	Co 228.616†	107.2	118.5	5.5108 µg/L	5.5108 ppb	05:47:42
1	Cr 267.716†	181.6	234.3	4.8794 µg/L	4.8794 ppb	05:47:22
1	Cu 324.752†	4047.9	1696.4	11.222 µg/L	11.222 ppb	05:47:22
1	Mn 257.610†	2783.3	3111.8	10.123 µg/L	10.123 ppb	05:47:22
1	Mo 202.031†	90.1	97.0	9.7959 µg/L	9.7959 ppb	05:47:42
1	Ni 231.604†	404.0	110.8	5.7140 µg/L	5.7140 ppb	05:47:42
1	P 214.914†	105.0	80.8	161.23 µg/L	161.23 ppb	05:47:42
1	Pb 220.353†	132.3	48.5	12.099 µg/L	12.099 ppb	05:47:42
1	S 181.975 Axial†	40.0	23.5	97.645 µg/L	97.645 ppb	05:47:42
1	Sb 206.836†	31.5	8.5	7.9858 µg/L	7.9858 ppb	05:47:42
1	Se 196.026†	40.6	23.1	33.261 µg/L	33.261 ppb	05:47:42
1	SiO2†	2318.7	1080.9	220.77 µg/L	220.77 ppb	05:47:22
1	Si 251.611†	1538.1	1278.3	99.897 µg/L	99.897 ppb	05:47:42
1	Sn 189.927†	25.1	25.4	10.996 µg/L	10.996 ppb	05:47:42
1	Ti 334.940†	2252.1	2208.3	5.0772 µg/L	5.0772 ppb	05:47:22
1	Tl 190.801†	-7.2	16.3	21.719 µg/L	21.719 ppb	05:47:42
1	U 409.014†	558.8	660.7	56.342 µg/L	56.342 ppb	05:47:22
1	V 292.402†	436.3	492.0	5.1339 µg/L	5.1339 ppb	05:47:22
1	Zn 213.857†	904.7	461.3	10.808 µg/L	10.808 ppb	05:47:42
2	Sc RADIAL	55845.6	55845.6	97.5 %		05:46:20
2	Al 396.153Radial†	261.5	292.4	203.43 µg/L	203.43 ppb	05:46:20
2	Ca 317.933Radial†	408.1	231.6	201.07 µg/L	201.07 ppb	05:46:40
2	Fe 238.204 Radial†	27.2	14.2	112.09 µg/L	112.09 ppb	05:46:40
2	K 766.490 Radial†	464.4	309.8	213.24 µg/L	213.24 ppb	05:46:20
2	Mg 279.077 IEC†	45.8	36.1	319.64 µg/L	319.64 ppb	05:46:40
2	Na 589.592 Radial†	1473.2	997.1	310.27 µg/L	310.27 ppb	05:46:20
2	Sr 421.552†	533.9	522.1	5.1521 µg/L	5.1521 ppb	05:46:20
2	Sc 361.383	1944217.0	1944217.0	97.930 %		05:47:48
2	Y 371.029	1336532.6	1336532.6	97.958 %		05:47:48
2	Ag 328.068†	123.2	686.9	5.2515 µg/L	5.2515 ppb	05:47:54
2	As 188.979†	15.0	13.5	24.737 µg/L	24.737 ppb	05:48:14
2	B 249.677†	1472.3	1209.1	49.796 µg/L	49.796 ppb	05:47:54
2	Ba 233.527†	174.6	204.3	5.0483 µg/L	5.0483 ppb	05:48:14
2	Be 313.107†	4316.0	8007.6	4.9740 µg/L	4.9740 ppb	05:47:54
2	Cd 226.502†	38.8	185.8	4.8189 µg/L	4.8189 ppb	05:48:14
2	Co 228.616†	92.7	103.5	4.8145 µg/L	4.8145 ppb	05:48:14
2	Cr 267.716†	207.9	260.9	5.4322 µg/L	5.4322 ppb	05:47:54
2	Cu 324.752†	4041.4	1682.6	11.128 µg/L	11.128 ppb	05:47:54
2	Mn 257.610†	2840.6	3165.3	10.294 µg/L	10.294 ppb	05:47:54
2	Mo 202.031†	100.4	107.3	10.838 µg/L	10.838 ppb	05:48:14
2	Ni 231.604†	403.8	109.8	5.6665 µg/L	5.6665 ppb	05:48:14
2	P 214.914†	104.0	79.6	158.90 µg/L	158.90 ppb	05:48:14
2	Pb 220.353†	136.8	52.8	13.185 µg/L	13.185 ppb	05:48:14



2	S 181.975 Axial†	39.6	23.0	95.837 µg/L	95.837 ppb	05:48:14
2	Sb 206.836†	31.3	8.2	7.7261 µg/L	7.7261 ppb	05:48:14
2	Se 196.026†	39.5	21.9	31.486 µg/L	31.486 ppb	05:48:14
2	SiO2†	2270.5	1027.6	209.88 µg/L	209.88 ppb	05:47:54
2	Si 251.611†	1534.4	1271.8	99.390 µg/L	99.390 ppb	05:48:14
2	Sn 189.927†	29.8	30.2	13.082 µg/L	13.082 ppb	05:48:14
2	Ti 334.940†	2216.0	2167.4	4.9829 µg/L	4.9829 ppb	05:47:54
2	Tl 190.801†	-7.1	16.5	21.895 µg/L	21.895 ppb	05:48:14
2	U 409.014†	650.3	753.2	64.237 µg/L	64.237 ppb	05:47:54
2	V 292.402†	413.0	467.5	4.9010 µg/L	4.9010 ppb	05:47:54
2	Zn 213.857†	900.7	455.7	10.677 µg/L	10.677 ppb	05:48:14
3	Sc RADIAL	56103.7	56103.7	98.0 %		05:46:46
3	Al 396.153Radial†	260.8	290.5	202.15 µg/L	202.15 ppb	05:46:46
3	Ca 317.933Radial†	398.5	220.0	190.93 µg/L	190.93 ppb	05:47:06
3	Fe 238.204 Radial†	29.5	16.4	129.82 µg/L	129.82 ppb	05:47:06
3	K 766.490 Radial†	377.1	218.4	150.34 µg/L	150.34 ppb	05:46:46
3	Mg 279.077 IEC†	44.7	34.8	308.05 µg/L	308.05 ppb	05:47:06
3	Na 589.592 Radial†	1445.0	961.4	299.16 µg/L	299.16 ppb	05:46:46
3	Sr 421.552†	555.2	541.4	5.3424 µg/L	5.3424 ppb	05:46:46
3	Sc 361.383	1916683.9	1916683.9	96.544 %		05:48:20
3	Y 371.029	1318176.9	1318176.9	96.612 %		05:48:20
3	Ag 328.068†	51.3	614.2	4.6983 µg/L	4.6983 ppb	05:48:26
3	As 188.979†	15.9	14.6	26.832 µg/L	26.832 ppb	05:48:47
3	B 249.677†	1463.4	1221.6	50.299 µg/L	50.299 ppb	05:48:26
3	Ba 233.527†	142.2	173.3	4.2825 µg/L	4.2825 ppb	05:48:47
3	Be 313.107†	3955.3	7697.3	4.7812 µg/L	4.7812 ppb	05:48:26
3	Cd 226.502†	16.8	163.6	4.2402 µg/L	4.2402 ppb	05:48:47
3	Co 228.616†	77.9	89.5	4.1620 µg/L	4.1620 ppb	05:48:47
3	Cr 267.716†	201.8	257.6	5.3635 µg/L	5.3635 ppb	05:48:26
3	Cu 324.752†	3980.7	1679.1	11.107 µg/L	11.107 ppb	05:48:26
3	Mn 257.610†	2680.1	3040.7	9.8919 µg/L	9.8919 ppb	05:48:26
3	Mo 202.031†	85.2	93.1	9.3995 µg/L	9.3995 ppb	05:48:47
3	Ni 231.604†	398.9	110.7	5.7119 µg/L	5.7119 ppb	05:48:47
3	P 214.914†	92.2	68.9	137.23 µg/L	137.23 ppb	05:48:47
3	Pb 220.353†	119.5	36.9	9.1946 µg/L	9.1946 ppb	05:48:47
3	S 181.975 Axial†	40.0	24.0	99.918 µg/L	99.918 ppb	05:48:47
3	Sb 206.836†	31.7	9.2	8.5561 µg/L	8.5561 ppb	05:48:47
3	Se 196.026†	29.1	11.8	17.006 µg/L	17.006 ppb	05:48:47
3	SiO2†	2308.2	1099.9	224.66 µg/L	224.66 ppb	05:48:26
3	Si 251.611†	1398.3	1153.3	90.129 µg/L	90.129 ppb	05:48:47
3	Sn 189.927†	18.1	18.4	7.9971 µg/L	7.9971 ppb	05:48:47
3	Ti 334.940†	2131.6	2112.5	4.8569 µg/L	4.8569 ppb	05:48:26
3	Tl 190.801†	-9.7	13.7	18.290 µg/L	18.290 ppb	05:48:47
3	U 409.014†	541.3	649.7	55.408 µg/L	55.408 ppb	05:48:26
3	V 292.402†	373.3	432.4	4.5283 µg/L	4.5283 ppb	05:48:26
3	Zn 213.857†	842.9	409.1	9.5770 µg/L	9.5770 ppb	05:48:47

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1933914.9	97.411 %	0.7564			0.78%
Sc RADIAL	55882.9	97.6 %	0.36			0.37%
Y 371.029	1329833.3	97.467 %	0.7426			0.76%
Ag 328.068†	654.8	5.0080 µg/L	0.28249	5.0080 ppb	0.28249	5.64%
QC value within limits for Ag 328.068 Recovery = 100.16%						
Al 396.153Radial†	300.3	208.98 µg/L	10.733	208.98 ppb	10.733	5.14%
QC value within limits for Al 396.153Radial Recovery = 104.49%						
As 188.979†	14.6	26.836 µg/L	2.1014	26.836 ppb	2.1014	7.83%
QC value within limits for As 188.979 Recovery = 89.45%						
B 249.677†	1206.3	49.673 µg/L	0.6946	49.673 ppb	0.6946	1.40%
QC value within limits for B 249.677 Recovery = 99.35%						
Ba 233.527†	195.7	4.8364 µg/L	0.48405	4.8364 ppb	0.48405	10.01%
QC value within limits for Ba 233.527 Recovery = 96.73%						
Be 313.107†	7897.8	4.9057 µg/L	0.10801	4.9057 ppb	0.10801	2.20%
QC value within limits for Be 313.107 Recovery = 98.11%						
Ca 317.933Radial†	225.8	195.98 µg/L	5.071	195.98 ppb	5.071	2.59%
QC value within limits for Ca 317.933Radial Recovery = 97.99%						
Cd 226.502†	182.0	4.7186 µg/L	0.43707	4.7186 ppb	0.43707	9.26%
QC value within limits for Cd 226.502 Recovery = 94.37%						
Co 228.616†	103.9	4.8291 µg/L	0.67454	4.8291 ppb	0.67454	13.97%

QC value within limits for Co 228.616	Recovery = 96.58%			
Cr 267.716†	250.9	5.2250 µg/L	0.30128	5.2250 ppb
QC value within limits for Cr 267.716	Recovery = 104.50%			
Cu 324.752†	1686.0	11.153 µg/L	0.0611	11.153 ppb
QC value within limits for Cu 324.752	Recovery = 111.53%			
Fe 238.204 Radial†	15.7	123.79 µg/L	10.135	123.79 ppb
QC value within limits for Fe 238.204 Radial	Recovery = 123.79%			
K 766.490 Radial†	259.3	178.47 µg/L	31.972	178.47 ppb
QC value within limits for K 766.490 Radial	Recovery = 118.98%			
Mg 279.077 IEC†	35.6	315.43 µg/L	6.407	315.43 ppb
QC value within limits for Mg 279.077 IEC	Recovery = 105.14%			
Mn 257.610†	3105.9	10.103 µg/L	0.2018	10.103 ppb
QC value within limits for Mn 257.610	Recovery = 101.03%			
Mo 202.031†	99.1	10.011 µg/L	0.7429	10.011 ppb
QC value within limits for Mo 202.031	Recovery = 100.11%			
Na 589.592 Radial†	988.9	307.70 µg/L	7.586	307.70 ppb
QC value within limits for Na 589.592 Radial	Recovery = 102.57%			
Ni 231.604†	110.4	5.6975 µg/L	0.02682	5.6975 ppb
QC value within limits for Ni 231.604	Recovery = 113.95%			
P 214.914†	76.4	152.45 µg/L	13.236	152.45 ppb
QC value within limits for P 214.914	Recovery = 101.64%			
Pb 220.353†	46.0	11.493 µg/L	2.0632	11.493 ppb
QC value within limits for Pb 220.353	Recovery = 114.93%			
S 181.975 Axial†	23.5	97.800 µg/L	2.0447	97.800 ppb
QC value within limits for S 181.975 Axial	Recovery = 97.80%			
Sb 206.836†	8.6	8.0893 µg/L	0.42455	8.0893 ppb
QC value within limits for Sb 206.836	Recovery = 80.89%			
Se 196.026†	19.0	27.251 µg/L	8.9169	27.251 ppb
QC value within limits for Se 196.026	Recovery = 90.84%			
SiO2†	1069.5	218.43 µg/L	7.663	218.43 ppb
QC value within limits for SiO2	Recovery = 102.55%			
Si 251.611†	1234.4	96.472 µg/L	5.4992	96.472 ppb
QC value within limits for Si 251.611	Recovery = 96.47%			
Sn 189.927†	24.6	10.691 µg/L	2.5558	10.691 ppb
QC value within limits for Sn 189.927	Recovery = 106.91%			
Sr 421.552†	540.1	5.3295 µg/L	0.17127	5.3295 ppb
QC value within limits for Sr 421.552	Recovery = 106.59%			
Ti 334.940†	2162.8	4.9723 µg/L	0.11055	4.9723 ppb
QC value within limits for Ti 334.940	Recovery = 99.45%			
Tl 190.801†	15.5	20.635 µg/L	2.0326	20.635 ppb
QC value within limits for Tl 190.801	Recovery = 103.17%			
U 409.014†	687.9	58.662 µg/L	4.8501	58.662 ppb
QC value within limits for U 409.014	Recovery = 117.32%			
V 292.402†	464.0	4.8544 µg/L	0.30549	4.8544 ppb
QC value within limits for V 292.402	Recovery = 97.09%			
Zn 213.857†	442.0	10.354 µg/L	0.6761	10.354 ppb
QC value within limits for Zn 213.857	Recovery = 103.54%			

All analyte(s) passed QC.

Sequence No.: 9  
 Sample ID: ICSA  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 103  
 Date Collected: 2/12/2010 05:48:56  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54750.1	54750.1	95.6 %		05:49:37
1	Al 396.153Radial†	679062.4	710398.2	494860 µg/L	494860 ppb	05:49:32
1	Ca 317.933Radial†	516985.7	540637.0	469310 µg/L	469310 ppb	05:49:32
1	Fe 238.204 Radial†	22504.3	23528.3	185870 µg/L	185870 ppb	05:49:37
1	K 766.490 Radial†	196.3	38.8	26.730 µg/L	26.730 ppb	05:49:37
1	Mg 279.077 IEC†	51808.3	54186.4	479660 µg/L	479660 ppb	05:49:37
1	Na 589.592 Radial†	569.8	82.3	25.600 µg/L	25.600 ppb	05:49:37
1	Sr 421.552†	364.1	355.5	3.5078 µg/L	3.5078 ppb	05:49:37
1	Sc 361.383	1824257.7	1824257.7	91.888 %		05:50:10
1	Y 371.029	1247120.8	1247120.8	91.404 %		05:50:10
1	Ag 328.068†	-2730.5	-2410.6	-6.7417 µg/L	-6.7417 ppb	05:50:15
1	As 188.979†	-11.6	-14.4	-40.092 µg/L	-40.092 ppb	05:50:36
1	B 249.677†	776.5	550.8	-74.285 µg/L	-74.285 ppb	05:50:15
1	Ba 233.527†	266.4	315.9	7.7495 µg/L	7.7495 ppb	05:50:36
1	Be 313.107†	-3891.7	-634.9	-0.4049 µg/L	-0.4049 ppb	05:50:15
1	Cd 226.502†	410.8	593.2	-5.6035 µg/L	-5.6035 ppb	05:50:36
1	Co 228.616†	26.5	37.7	1.6847 µg/L	1.6847 ppb	05:50:36
1	Cr 267.716†	-77.5	-35.8	-0.7590 µg/L	-0.7590 ppb	05:50:36
1	Cu 324.752†	-1432.4	-4003.0	-0.6019 µg/L	-0.6019 ppb	05:50:15
1	Mn 257.610†	352.3	648.0	7.6337 µg/L	7.6337 ppb	05:50:15
1	Mo 202.031†	-111.8	-116.8	-4.7237 µg/L	-4.7237 ppb	05:50:36
1	Ni 231.604†	166.1	-121.7	-3.8689 µg/L	-3.8689 ppb	05:50:36
1	P 214.914†	111.2	94.4	183.52 µg/L	183.52 ppb	05:50:36
1	Pb 220.353†	45.5	-37.4	10.779 µg/L	10.779 ppb	05:50:36
1	S 181.975 Axial†	46.3	32.9	136.84 µg/L	136.84 ppb	05:50:36
1	Sb 206.836†	46.1	26.5	-16.442 µg/L	-16.442 ppb	05:50:36
1	Se 196.026†	16.4	-0.5	-50.517 µg/L	-50.517 ppb	05:50:36
1	SiO2†	1086.2	-108.8	-22.229 µg/L	-22.229 ppb	05:50:36
1	Si 251.611†	419.8	161.8	12.643 µg/L	12.643 ppb	05:50:36
1	Sn 189.927†	-61.8	-67.6	5.2090 µg/L	5.2090 ppb	05:50:36
1	Ti 334.940†	10893.0	11759.3	-3.2462 µg/L	-3.2462 ppb	05:50:15
1	Tl 190.801†	-40.5	-20.3	-6.4656 µg/L	-6.4656 ppb	05:50:36
1	U 409.014†	20.2	111.1	-44.985 µg/L	-44.985 ppb	05:50:15
1	V 292.402†	-2203.0	-2351.8	-1.9769 µg/L	-1.9769 ppb	05:50:15
1	Zn 213.857†	1489.4	1156.9	-8.6944 µg/L	-8.6944 ppb	05:50:36
2	Sc RADIAL	54491.2	54491.2	95.1 %		05:49:49
2	Al 396.153Radial†	683503.1	718441.2	500460 µg/L	500460 ppb	05:49:43
2	Ca 317.933Radial†	520454.0	546852.4	474700 µg/L	474700 ppb	05:49:43
2	Fe 238.204 Radial†	22637.9	23780.5	187860 µg/L	187860 ppb	05:49:49
2	K 766.490 Radial†	91.8	-70.0	-48.162 µg/L	-48.162 ppb	05:49:49
2	Mg 279.077 IEC†	52022.1	54668.6	483930 µg/L	483930 ppb	05:49:49
2	Na 589.592 Radial†	598.8	115.6	35.970 µg/L	35.970 ppb	05:49:49
2	Sr 421.552†	391.1	385.6	3.8056 µg/L	3.8056 ppb	05:49:49
2	Sc 361.383	1829816.2	1829816.2	92.168 %		05:50:42
2	Y 371.029	1252476.2	1252476.2	91.797 %		05:50:42
2	Ag 328.068†	-2803.7	-2480.9	-7.1486 µg/L	-7.1486 ppb	05:50:48
2	As 188.979†	-12.4	-15.2	-41.776 µg/L	-41.776 ppb	05:51:09
2	B 249.677†	790.5	563.4	-74.805 µg/L	-74.805 ppb	05:50:48
2	Ba 233.527†	247.9	295.0	7.2328 µg/L	7.2328 ppb	05:51:09
2	Be 313.107†	-4061.7	-806.5	-0.5118 µg/L	-0.5118 ppb	05:50:48
2	Cd 226.502†	381.8	560.4	-6.6808 µg/L	-6.6808 ppb	05:51:09
2	Co 228.616†	34.5	46.3	2.0857 µg/L	2.0857 ppb	05:51:09
2	Cr 267.716†	-93.6	-53.0	-1.1186 µg/L	-1.1186 ppb	05:51:09
2	Cu 324.752†	-1514.9	-4087.9	-0.8850 µg/L	-0.8850 ppb	05:50:48
2	Mn 257.610†	385.8	683.3	7.8425 µg/L	7.8425 ppb	05:50:48
2	Mo 202.031†	-109.0	-113.4	-4.3081 µg/L	-4.3081 ppb	05:51:09
2	Ni 231.604†	163.2	-125.4	-4.0356 µg/L	-4.0356 ppb	05:51:09
2	P 214.914†	94.4	75.8	146.22 µg/L	146.22 ppb	05:51:09
2	Pb 220.353†	52.5	-30.0	12.884 µg/L	12.884 ppb	05:51:09

2	S 181.975 Axial†	37.9	23.7	98.669 µg/L	98.669 ppb	05:51:09
2	Sb 206.836†	63.9	45.7	0.8152 µg/L	0.8152 ppb	05:51:09
2	Se 196.026†	3.0	-15.1	-71.359 µg/L	-71.359 ppb	05:51:09
2	SiO2†	1084.9	-113.9	-23.257 µg/L	-23.257 ppb	05:51:09
2	Si 251.611†	419.5	160.1	12.509 µg/L	12.509 ppb	05:51:09
2	Sn 189.927†	-68.7	-74.9	2.3074 µg/L	2.3074 ppb	05:51:09
2	Ti 334.940†	11261.1	12122.6	-2.6582 µg/L	-2.6582 ppb	05:50:48
2	Tl 190.801†	-36.3	-15.6	-0.0596 µg/L	-0.0596 ppb	05:51:09
2	U 409.014†	-32.2	54.1	-50.452 µg/L	-50.452 ppb	05:50:48
2	V 292.402†	-2192.8	-2333.4	-1.5601 µg/L	-1.5601 ppb	05:50:48
2	Zn 213.857†	1495.5	1158.5	-8.9903 µg/L	-8.9903 ppb	05:51:09
3	Sc RADIAL	54775.9	54775.9	95.6 %		05:50:00
3	Al 396.153Radial†	688347.4	719772.1	501390 µg/L	501390 ppb	05:49:54
3	Ca 317.933Radial†	526353.8	550177.7	477590 µg/L	477590 ppb	05:49:54
3	Fe 238.204 Radial†	22572.9	23588.9	186350 µg/L	186350 ppb	05:50:00
3	K 766.490 Radial†	128.4	-32.2	-22.169 µg/L	-22.169 ppb	05:50:00
3	Mg 279.077 IEC†	51872.2	54227.6	480020 µg/L	480020 ppb	05:50:00
3	Na 589.592 Radial†	608.3	122.2	38.037 µg/L	38.037 ppb	05:50:00
3	Sr 421.552†	373.7	365.3	3.6051 µg/L	3.6051 ppb	05:50:00
3	Sc 361.383	1825090.1	1825090.1	91.930 %		05:51:15
3	Y 371.029	1247573.6	1247573.6	91.438 %		05:51:15
3	Ag 328.068†	-2700.1	-2376.1	-6.4439 µg/L	-6.4439 ppb	05:51:20
3	As 188.979†	-6.7	-9.2	-30.833 µg/L	-30.833 ppb	05:51:41
3	B 249.677†	820.0	597.8	-72.597 µg/L	-72.597 ppb	05:51:20
3	Ba 233.527†	260.3	309.2	7.5845 µg/L	7.5845 ppb	05:51:41
3	Be 313.107†	-4084.8	-843.0	-0.5343 µg/L	-0.5343 ppb	05:51:20
3	Cd 226.502†	387.0	567.1	-6.3365 µg/L	-6.3365 ppb	05:51:41
3	Co 228.616†	31.2	42.8	1.9234 µg/L	1.9234 ppb	05:51:41
3	Cr 267.716†	-65.8	-23.0	-0.4935 µg/L	-0.4935 ppb	05:51:41
3	Cu 324.752†	-1527.7	-4106.0	-1.2149 µg/L	-1.2149 ppb	05:51:20
3	Mn 257.610†	438.4	741.5	7.9869 µg/L	7.9869 ppb	05:51:20
3	Mo 202.031†	-121.4	-127.2	-5.7618 µg/L	-5.7618 ppb	05:51:41
3	Ni 231.604†	158.7	-129.9	-4.2847 µg/L	-4.2847 ppb	05:51:41
3	P 214.914†	109.7	92.7	181.67 µg/L	181.67 ppb	05:51:41
3	Pb 220.353†	51.6	-30.8	12.787 µg/L	12.787 ppb	05:51:41
3	S 181.975 Axial†	36.6	22.4	93.278 µg/L	93.278 ppb	05:51:41
3	Sb 206.836†	53.8	34.8	-9.5328 µg/L	-9.5328 ppb	05:51:41
3	Se 196.026†	19.2	2.5	-47.437 µg/L	-47.437 ppb	05:51:41
3	SiO2†	1099.9	-94.5	-19.298 µg/L	-19.298 ppb	05:51:41
3	Si 251.611†	442.3	186.1	14.543 µg/L	14.543 ppb	05:51:41
3	Sn 189.927†	-61.6	-67.4	5.2434 µg/L	5.2434 ppb	05:51:41
3	Ti 334.940†	10979.1	11847.6	-2.9387 µg/L	-2.9387 ppb	05:51:20
3	Tl 190.801†	-36.3	-15.7	-0.6279 µg/L	-0.6279 ppb	05:51:41
3	U 409.014†	19.0	109.8	-45.665 µg/L	-45.665 ppb	05:51:20
3	V 292.402†	-2121.7	-2262.3	-1.0236 µg/L	-1.0236 ppb	05:51:20
3	Zn 213.857†	1493.1	1160.1	-8.6576 µg/L	-8.6576 ppb	05:51:41

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1826388.0	91.995 %	0.1510			0.16%
Sc RADIAL	54672.4	95.5 %	0.27			0.29%
Y 371.029	1249056.9	91.546 %	0.2177			0.24%
Ag 328.068†	-2422.5	-6.7781 µg/L	0.35374	-6.7781 ppb	0.35374	5.22%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	716203.8	498900 µg/L	3532.9	498900 ppb	3532.9	0.71%
QC value within limits for Al 396.153Radial Recovery = 99.78%						
As 188.979†	-12.9	-37.567 µg/L	5.8920	-37.567 ppb	5.8920	15.68%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	570.6	-73.895 µg/L	1.1541	-73.895 ppb	1.1541	1.56%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	306.7	7.5223 µg/L	0.26391	7.5223 ppb	0.26391	3.51%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-761.5	-0.4837 µg/L	0.06916	-0.4837 ppb	0.06916	14.30%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	545889.0	473870 µg/L	4203.8	473870 ppb	4203.8	0.89%
QC value within limits for Ca 317.933Radial Recovery = 94.77%						
Cd 226.502†	573.6	-6.2069 µg/L	0.55025	-6.2069 ppb	0.55025	8.87%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	42.3	1.8980 µg/L	0.20171	1.8980 ppb	0.20171	10.63%

QC value within limits for Co 228.616 Recovery = Not calculated									
Cr 267.716†	-37.3	-0.7904 µg/L	0.31375	-0.7904 ppb	0.31375	39.70%			
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu 324.752†	-4065.6	-0.9006 µg/L	0.30682	-0.9006 ppb	0.30682	34.07%			
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe 238.204 Radial†	23632.6	186700 µg/L	1040.2	186700 ppb	1040.2	0.56%			
QC value within limits for Fe 238.204 Radial Recovery = 93.35%									
K 766.490 Radial†	-21.1	-14.533 µg/L	38.0255	-14.533 ppb	38.0255	261.64%			
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg 279.077 IEC†	54360.9	481200 µg/L	2366.0	481200 ppb	2366.0	0.49%			
QC value within limits for Mg 279.077 IEC Recovery = 96.24%									
Mn 257.610†	690.9	7.8210 µg/L	0.17758	7.8210 ppb	0.17758	2.27%			
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo 202.031†	-119.1	-4.9312 µg/L	0.74875	-4.9312 ppb	0.74875	15.18%			
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na 589.592 Radial†	106.7	33.203 µg/L	6.6646	33.203 ppb	6.6646	20.07%			
QC value within limits for Na 589.592 Radial Recovery = Not calculated									
Ni 231.604†	-125.7	-4.0631 µg/L	0.20924	-4.0631 ppb	0.20924	5.15%			
QC value within limits for Ni 231.604 Recovery = Not calculated									
P 214.914†	87.6	170.47 µg/L	21.018	170.47 ppb	21.018	12.33%			
QC value within limits for P 214.914 Recovery = Not calculated									
Pb 220.353†	-32.7	12.150 µg/L	1.1885	12.150 ppb	1.1885	9.78%			
QC value within limits for Pb 220.353 Recovery = Not calculated									
S 181.975 Axial†	26.4	109.60 µg/L	23.749	109.60 ppb	23.749	21.67%			
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb 206.836†	35.7	-8.3865 µg/L	8.68543	-8.3865 ppb	8.68543	103.56%			
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se 196.026†	-4.4	-56.438 µg/L	13.0138	-56.438 ppb	13.0138	23.06%			
QC value within limits for Se 196.026 Recovery = Not calculated									
SiO2†	-105.7	-21.595 µg/L	2.0545	-21.595 ppb	2.0545	9.51%			
QC value within limits for SiO2 Recovery = Not calculated									
Si 251.611†	169.3	13.232 µg/L	1.1377	13.232 ppb	1.1377	8.60%			
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn 189.927†	-69.9	4.2533 µg/L	1.68524	4.2533 ppb	1.68524	39.62%			
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr 421.552†	368.8	3.6395 µg/L	0.15184	3.6395 ppb	0.15184	4.17%			
QC value within limits for Sr 421.552 Recovery = Not calculated									
Ti 334.940†	11909.8	-2.9477 µg/L	0.29412	-2.9477 ppb	0.29412	9.98%			
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl 190.801†	-17.2	-2.3843 µg/L	3.54583	-2.3843 ppb	3.54583	148.71%			
QC value within limits for Tl 190.801 Recovery = Not calculated									
U 409.014†	91.7	-47.034 µg/L	2.9793	-47.034 ppb	2.9793	6.33%			
QC value within limits for U 409.014 Recovery = Not calculated									
V 292.402†	-2315.8	-1.5202 µg/L	0.47789	-1.5202 ppb	0.47789	31.44%			
QC value within limits for V 292.402 Recovery = Not calculated									
Zn 213.857†	1158.5	-8.7808 µg/L	0.18238	-8.7808 ppb	0.18238	2.08%			
QC value within limits for Zn 213.857 Recovery = Not calculated									
All analyte(s) passed QC.									

Sequence No.: 10

Sample ID: ICSAB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 104

Date Collected: 2/12/2010 05:51:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55347.4	55347.4	96.6 %		05:52:30
1	Al 396.153Radial†	684289.2	708141.0	493280 µg/L	493280 ppb	05:52:24
1	Ca 317.933Radial†	522005.6	539995.5	468750 µg/L	468750 ppb	05:52:24
1	Fe 238.204 Radial†	22624.8	23398.9	184860 µg/L	184860 ppb	05:52:30
1	K 766.490 Radial†	7197.8	7281.9	5012.3 µg/L	5012.3 ppb	05:52:30
1	Mg 279.077 IEC†	52185.6	53991.9	477950 µg/L	477950 ppb	05:52:30
1	Na 589.592 Radial†	15856.0	15894.3	4945.8 µg/L	4945.8 ppb	05:52:30
1	Sr 421.552†	49057.7	50740.5	500.71 µg/L	500.71 ppb	05:52:30
1	Sc 361.383	1832670.4	1832670.4	92.312 %		05:53:03
1	Y 371.029	1253605.8	1253605.8	91.880 %		05:53:03
1	Ag 328.068†	28091.6	30992.3	250.00 µg/L	250.00 ppb	05:53:09
1	As 188.979†	247.9	266.7	475.66 µg/L	475.66 ppb	05:53:30
1	B 249.677†	12125.2	12840.8	433.65 µg/L	433.65 ppb	05:53:09
1	Ba 233.527†	18273.6	19821.6	489.77 µg/L	489.77 ppb	05:53:09
1	Be 313.107†	347014.1	379515.7	235.63 µg/L	235.63 ppb	05:53:03
1	Cd 226.502†	16509.5	18030.6	447.80 µg/L	447.80 ppb	05:53:09
1	Co 228.616†	8488.8	9204.6	427.46 µg/L	427.46 ppb	05:53:30
1	Cr 267.716†	21030.5	22830.6	475.41 µg/L	475.41 ppb	05:53:09
1	Cu 324.752†	71801.2	75337.0	523.26 µg/L	523.26 ppb	05:53:09
1	Mn 257.610†	132554.6	143859.2	473.22 µg/L	473.22 ppb	05:53:09
1	Mo 202.031†	4462.1	4838.6	495.38 µg/L	495.38 ppb	05:53:30
1	Ni 231.604†	7827.0	8176.3	424.05 µg/L	424.05 ppb	05:53:30
1	P 214.914†	1271.5	1350.8	2660.0 µg/L	2660.0 ppb	05:53:30
1	Pb 220.353†	1763.4	1823.4	477.00 µg/L	477.00 ppb	05:53:30
1	S 181.975 Axial†	612.3	645.8	2686.1 µg/L	2686.1 ppb	05:53:30
1	Sb 206.836†	557.5	580.3	499.14 µg/L	499.14 ppb	05:53:30
1	Se 196.026†	1545.5	1655.9	2327.3 µg/L	2327.3 ppb	05:53:30
1	SiO2†	49446.3	52273.5	10677 µg/L	10677 ppb	05:53:09
1	Si 251.611†	59548.0	64212.4	5018.2 µg/L	5018.2 ppb	05:53:09
1	Sn 189.927†	1006.6	1090.1	506.17 µg/L	506.17 ppb	05:53:30
1	Ti 334.940†	207203.1	224364.8	487.82 µg/L	487.82 ppb	05:53:09
1	Tl 190.801†	275.9	322.6	451.48 µg/L	451.48 ppb	05:53:30
1	U 409.014†	5134.5	5651.3	427.89 µg/L	427.89 ppb	05:53:09
1	V 292.402†	43403.1	47063.7	502.83 µg/L	502.83 ppb	05:53:09
1	Zn 213.857†	19663.6	20837.3	452.67 µg/L	452.67 ppb	05:53:09
2	Sc RADIAL	56026.5	56026.5	97.8 %		05:52:41
2	Al 396.153Radial†	690901.0	706317.5	492010 µg/L	492010 ppb	05:52:36
2	Ca 317.933Radial†	529725.3	541339.9	469920 µg/L	469920 ppb	05:52:36
2	Fe 238.204 Radial†	22523.1	23011.1	181800 µg/L	181800 ppb	05:52:41
2	K 766.490 Radial†	7145.8	7138.5	4913.6 µg/L	4913.6 ppb	05:52:41
2	Mg 279.077 IEC†	51781.8	52924.5	468500 µg/L	468500 ppb	05:52:41
2	Na 589.592 Radial†	15797.2	15635.4	4865.2 µg/L	4865.2 ppb	05:52:41
2	Sr 421.552†	48750.9	49811.6	491.55 µg/L	491.55 ppb	05:52:41
2	Sc 361.383	1838106.6	1838106.6	92.586 %		05:53:36
2	Y 371.029	1258621.1	1258621.1	92.247 %		05:53:36
2	Ag 328.068†	28225.4	31046.8	250.23 µg/L	250.23 ppb	05:53:42
2	As 188.979†	243.3	260.9	464.79 µg/L	464.79 ppb	05:54:02
2	B 249.677†	12191.8	12873.9	436.62 µg/L	436.62 ppb	05:53:42
2	Ba 233.527†	18359.9	19856.2	490.63 µg/L	490.63 ppb	05:53:42
2	Be 313.107†	352259.4	384069.3	238.46 µg/L	238.46 ppb	05:53:36
2	Cd 226.502†	16638.6	18117.3	450.39 µg/L	450.39 ppb	05:53:42
2	Co 228.616†	8486.7	9175.2	426.09 µg/L	426.09 ppb	05:54:02
2	Cr 267.716†	21210.4	22957.5	478.05 µg/L	478.05 ppb	05:53:42
2	Cu 324.752†	71934.9	75251.4	522.27 µg/L	522.27 ppb	05:53:42
2	Mn 257.610†	132953.9	143865.8	473.22 µg/L	473.22 ppb	05:53:42
2	Mo 202.031†	4452.1	4813.5	492.73 µg/L	492.73 ppb	05:54:02
2	Ni 231.604†	7816.1	8139.5	422.11 µg/L	422.11 ppb	05:54:02
2	P 214.914†	1269.1	1344.1	2648.7 µg/L	2648.7 ppb	05:54:02
2	Pb 220.353†	1766.9	1821.5	476.57 µg/L	476.57 ppb	05:54:02

2	S 181.975 Axial†	605.0	636.0	2645.2 µg/L	2645.2 ppb	05:54:02
2	Sb 206.836†	557.1	578.0	496.86 µg/L	496.86 ppb	05:54:02
2	Se 196.026†	1544.2	1649.5	2317.8 µg/L	2317.8 ppb	05:54:02
2	SiO2†	49665.6	52352.0	10693 µg/L	10693 ppb	05:53:42
2	Si 251.611†	59855.3	64353.5	5029.3 µg/L	5029.3 ppb	05:53:42
2	Sn 189.927†	1008.6	1089.1	504.93 µg/L	504.93 ppb	05:54:02
2	Ti 334.940†	207497.2	224018.6	487.78 µg/L	487.78 ppb	05:53:42
2	Tl 190.801†	277.1	323.0	451.40 µg/L	451.40 ppb	05:54:02
2	U 409.014†	5194.9	5700.0	432.41 µg/L	432.41 ppb	05:53:42
2	V 292.402†	43643.2	47183.9	503.67 µg/L	503.67 ppb	05:53:42
2	Zn 213.857†	19726.0	20841.7	453.47 µg/L	453.47 ppb	05:53:42
3	Sc RADIAL	55798.1	55798.1	97.4 %		05:52:52
3	Al 396.153Radial†	689755.7	708032.7	493200 µg/L	493200 ppb	05:52:47
3	Ca 317.933Radial†	527305.9	541073.0	469690 µg/L	469690 ppb	05:52:47
3	Fe 238.204 Radial†	22793.6	23383.0	184730 µg/L	184730 ppb	05:52:52
3	K 766.490 Radial†	7217.6	7242.1	4984.8 µg/L	4984.8 ppb	05:52:52
3	Mg 279.077 IEC†	52404.8	53780.8	476080 µg/L	476080 ppb	05:52:52
3	Na 589.592 Radial†	15981.4	15890.6	4944.6 µg/L	4944.6 ppb	05:52:52
3	Sr 421.552†	49363.6	50644.5	499.76 µg/L	499.76 ppb	05:52:52
3	Sc 361.383	1843625.0	1843625.0	92.864 %		05:54:09
3	Y 371.029	1260865.1	1260865.1	92.412 %		05:54:09
3	Ag 328.068†	28435.0	31181.2	251.45 µg/L	251.45 ppb	05:54:15
3	As 188.979†	238.0	254.4	453.04 µg/L	453.04 ppb	05:54:35
3	B 249.677†	12254.6	12902.1	436.25 µg/L	436.25 ppb	05:54:15
3	Ba 233.527†	18522.6	19972.0	493.49 µg/L	493.49 ppb	05:54:15
3	Be 313.107†	352691.0	383395.2	238.04 µg/L	238.04 ppb	05:54:09
3	Cd 226.502†	16710.6	18140.9	450.67 µg/L	450.67 ppb	05:54:15
3	Co 228.616†	8527.7	9191.9	426.86 µg/L	426.86 ppb	05:54:35
3	Cr 267.716†	21332.7	23020.7	479.36 µg/L	479.36 ppb	05:54:15
3	Cu 324.752†	72605.1	75740.5	525.90 µg/L	525.90 ppb	05:54:15
3	Mn 257.610†	134006.3	144569.1	475.59 µg/L	475.59 ppb	05:54:15
3	Mo 202.031†	4475.0	4823.8	493.88 µg/L	493.88 ppb	05:54:35
3	Ni 231.604†	7851.4	8152.2	422.81 µg/L	422.81 ppb	05:54:35
3	P 214.914†	1259.9	1330.1	2618.1 µg/L	2618.1 ppb	05:54:35
3	Pb 220.353†	1773.4	1822.8	476.85 µg/L	476.85 ppb	05:54:35
3	S 181.975 Axial†	608.4	637.7	2652.2 µg/L	2652.2 ppb	05:54:35
3	Sb 206.836†	565.6	585.4	503.71 µg/L	503.71 ppb	05:54:35
3	Se 196.026†	1556.0	1657.2	2330.2 µg/L	2330.2 ppb	05:54:35
3	SiO2†	49987.4	52537.9	10731 µg/L	10731 ppb	05:54:15
3	Si 251.611†	60303.6	64642.8	5051.9 µg/L	5051.9 ppb	05:54:15
3	Sn 189.927†	993.6	1069.7	497.10 µg/L	497.10 ppb	05:54:35
3	Ti 334.940†	209247.5	225232.6	489.98 µg/L	489.98 ppb	05:54:15
3	Tl 190.801†	274.0	318.7	446.31 µg/L	446.31 ppb	05:54:35
3	U 409.014†	5248.2	5740.6	435.47 µg/L	435.47 ppb	05:54:15
3	V 292.402†	43956.8	47380.5	506.02 µg/L	506.02 ppb	05:54:15
3	Zn 213.857†	19903.5	20969.0	455.89 µg/L	455.89 ppb	05:54:15

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1838134.0	92.587 %	0.2759			0.30%
Sc RADIAL	55724.0	97.3 %	0.60			0.62%
Y 371.029	1257697.3	92.180 %	0.2724			0.30%
Ag 328.068†	31073.4	250.56 µg/L	0.778	250.56 ppb	0.778	0.31%
QC value within limits for Ag 328.068 Recovery = 100.22%						
Al 396.153Radial†	707497.1	492830 µg/L	712.6	492830 ppb	712.6	0.14%
QC value within limits for Al 396.153Radial Recovery = 98.57%						
As 188.979†	260.7	464.50 µg/L	11.310	464.50 ppb	11.310	2.43%
QC value within limits for As 188.979 Recovery = 92.90%						
B 249.677†	12872.3	435.51 µg/L	1.618	435.51 ppb	1.618	0.37%
QC value within limits for B 249.677 Recovery = 87.10%						
Ba 233.527†	19883.3	491.30 µg/L	1.947	491.30 ppb	1.947	0.40%
QC value within limits for Ba 233.527 Recovery = 98.26%						
Be 313.107†	382326.8	237.38 µg/L	1.527	237.38 ppb	1.527	0.64%
QC value within limits for Be 313.107 Recovery = 94.95%						
Ca 317.933Radial†	540802.8	469450 µg/L	617.9	469450 ppb	617.9	0.13%
QC value within limits for Ca 317.933Radial Recovery = 93.89%						
Cd 226.502†	18096.3	449.62 µg/L	1.586	449.62 ppb	1.586	0.35%
QC value within limits for Cd 226.502 Recovery = 89.92%						
Co 228.616†	9190.6	426.81 µg/L	0.687	426.81 ppb	0.687	0.16%

Cr	267.716†	22936.3	477.61 µg/L	2.015	477.61 ppb	2.015	0.42%
Cu	324.752†	75443.0	523.81 µg/L	1.881	523.81 ppb	1.881	0.36%
Fe	238.204 Radial†	23264.4	183800 µg/L	1733.4	183800 ppb	1733.4	0.94%
K	766.490 Radial†	7220.8	4970.2 µg/L	50.95	4970.2 ppb	50.95	1.03%
Mg	279.077 IEC†	53565.8	474170 µg/L	5003.9	474170 ppb	5003.9	1.06%
Mn	257.610†	144098.0	474.01 µg/L	1.369	474.01 ppb	1.369	0.29%
Mo	202.031†	4825.3	494.00 µg/L	1.329	494.00 ppb	1.329	0.27%
Na	589.592 Radial†	15806.8	4918.5 µg/L	46.19	4918.5 ppb	46.19	0.94%
Ni	231.604†	8156.0	422.99 µg/L	0.982	422.99 ppb	0.982	0.23%
P	214.914†	1341.6	2642.2 µg/L	21.66	2642.2 ppb	21.66	0.82%
Pb	220.353†	1822.6	476.81 µg/L	0.221	476.81 ppb	0.221	0.05%
S	181.975 Axial†	639.8	2661.2 µg/L	21.90	2661.2 ppb	21.90	0.82%
Sb	206.836†	581.3	499.90 µg/L	3.487	499.90 ppb	3.487	0.70%
Se	196.026†	1654.2	2325.1 µg/L	6.49	2325.1 ppb	6.49	0.28%
SiO2†		52387.8	10700 µg/L	27.7	10700 ppb	27.7	0.26%
Si	251.611†	64402.9	5033.1 µg/L	17.14	5033.1 ppb	17.14	0.34%
Sn	189.927†	1083.0	502.73 µg/L	4.919	502.73 ppb	4.919	0.98%
Sr	421.552†	50398.9	497.34 µg/L	5.041	497.34 ppb	5.041	1.01%
Ti	334.940†	224538.7	488.53 µg/L	1.261	488.53 ppb	1.261	0.26%
Tl	190.801†	321.5	449.73 µg/L	2.962	449.73 ppb	2.962	0.66%
U	409.014†	5697.3	431.92 µg/L	3.816	431.92 ppb	3.816	0.88%
V	292.402†	47209.4	504.18 µg/L	1.655	504.18 ppb	1.655	0.33%
Zn	213.857†	20882.6	454.01 µg/L	1.676	454.01 ppb	1.676	0.37%

QC value within limits for Co 228.616 Recovery = 85.36%

QC value within limits for Cr 267.716 Recovery = 95.52%

QC value within limits for Cu 324.752 Recovery = 104.76%

QC value within limits for Fe 238.204 Radial Recovery = 91.90%

QC value within limits for K 766.490 Radial Recovery = 99.40%

QC value within limits for Mg 279.077 IEC Recovery = 94.83%

QC value within limits for Mn 257.610 Recovery = 94.80%

QC value within limits for Mo 202.031 Recovery = 98.80%

QC value within limits for Na 589.592 Radial Recovery = 98.37%

QC value within limits for Ni 231.604 Recovery = 84.60%

QC value within limits for P 214.914 Recovery = 105.69%

QC value within limits for Pb 220.353 Recovery = 95.36%

QC value within limits for S 181.975 Axial Recovery = 106.45%

QC value within limits for Sb 206.836 Recovery = 99.98%

QC value within limits for Se 196.026 Recovery = 93.00%

QC value within limits for SiO2 Recovery = 100.05%

QC value within limits for Si 251.611 Recovery = 100.66%

QC value within limits for Sn 189.927 Recovery = 100.55%

QC value within limits for Sr 421.552 Recovery = 99.47%

QC value within limits for Ti 334.940 Recovery = 97.71%

QC value within limits for Tl 190.801 Recovery = 89.95%

QC value within limits for U 409.014 Recovery = 86.38%

QC value within limits for V 292.402 Recovery = 100.84%

QC value within limits for Zn 213.857 Recovery = 90.80%

All analyte(s) passed QC.



Sequence No.: 11  
 Sample ID: LR1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 105  
 Date Collected: 2/12/2010 05:54:44  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54633.8	54633.8	95.4 %		05:55:24
1	Al 396.153Radial†	685252.6	718400.4	500430 µg/L	500430 ppb	05:55:19
1	Ca 317.933Radial†	524038.2	549182.2	476730 µg/L	476730 ppb	05:55:19
1	Fe 238.204 Radial†	55335.1	57996.2	458170 µg/L	458170 ppb	05:55:24
1	K 766.490 Radial†	104.7	-56.8	-39.068 µg/L	-39.068 ppb	05:55:24
1	Mg 279.077 IEC†	52117.8	54626.2	483260 µg/L	483260 ppb	05:55:24
1	Na 589.592 Radial†	1480230.8	1551268.0	482700 µg/L	482700 ppb	05:55:19
1	Sr 421.552†	560.2	561.9	5.5448 µg/L	5.5448 ppb	05:55:24
1	Sc 361.383	1819946.9	1819946.9	91.671 %		05:55:59
1	Y 371.029	1236477.1	1236477.1	90.624 %		05:55:59
1	Ag 328.068†	-5203.4	-5115.1	-10.418 µg/L	-10.418 ppb	05:56:04
1	As 188.979†	-23.8	-27.8	-49.222 µg/L	-49.222 ppb	05:56:25
1	B 249.677†	1525.6	1370.0	-182.59 µg/L	-182.59 ppb	05:56:04
1	Ba 233.527†	559.2	636.0	15.561 µg/L	15.561 ppb	05:56:25
1	Be 313.107†	-11534.1	-8981.7	-5.5944 µg/L	-5.5944 ppb	05:56:04
1	Cd 226.502†	1110.6	1357.6	-16.525 µg/L	-16.525 ppb	05:56:04
1	Co 228.616†	201.5	228.7	10.542 µg/L	10.542 ppb	05:56:25
1	Cr 267.716†	95.4	152.7	3.1329 µg/L	3.1329 ppb	05:56:25
1	Cu 324.752†	-9107.0	-12378.6	-18.069 µg/L	-18.069 ppb	05:56:04
1	Mn 257.610†	-6542.3	-6872.0	19.241 µg/L	19.241 ppb	05:55:59
1	Mo 202.031†	-207.8	-221.8	-4.9744 µg/L	-4.9744 ppb	05:56:25
1	Ni 231.604†	88.7	-205.7	-4.6765 µg/L	-4.6765 ppb	05:56:25
1	P 214.914†	290.5	290.2	363.43 µg/L	363.43 ppb	05:56:25
1	Pb 220.353†	185.5	115.4	25.033 µg/L	25.033 ppb	05:56:25
1	S 181.975 Axial†	23.9	8.7	36.059 µg/L	36.059 ppb	05:56:25
1	Sb 206.836†	62.1	44.0	-1.0911 µg/L	-1.0911 ppb	05:56:25
1	Se 196.026†	-133.5	-164.0	453.51 µg/L	453.51 ppb	05:56:25
1	SiO2†	1010.9	-188.2	-38.439 µg/L	-38.439 ppb	05:56:25
1	Si 251.611†	-323.5	-648.0	-50.639 µg/L	-50.639 ppb	05:56:25
1	Sn 189.927†	-47.0	-51.5	-16.491 µg/L	-16.491 ppb	05:56:25
1	Ti 334.940†	13899.0	15066.5	4.2016 µg/L	4.2016 ppb	05:56:04
1	Tl 190.801†	-44.5	-24.8	42.336 µg/L	42.336 ppb	05:56:25
1	U 409.014†	145261.4	158548.8	13435 µg/L	13435 ppb	05:56:04
1	V 292.402†	-6379.3	-6913.3	-2.0617 µg/L	-2.0617 ppb	05:56:04
1	Zn 213.857†	2872.4	2669.3	13.914 µg/L	13.914 ppb	05:56:25
2	Sc RADIAL	54361.8	54361.8	94.9 %		05:55:36
2	Al 396.153Radial†	686817.6	723643.5	504090 µg/L	504090 ppb	05:55:31
2	Ca 317.933Radial†	526431.9	554452.7	481300 µg/L	481300 ppb	05:55:31
2	Fe 238.204 Radial†	55016.4	57950.7	457810 µg/L	457810 ppb	05:55:36
2	K 766.490 Radial†	95.3	-66.1	-45.519 µg/L	-45.519 ppb	05:55:36
2	Mg 279.077 IEC†	51748.3	54510.3	482240 µg/L	482240 ppb	05:55:36
2	Na 589.592 Radial†	1485964.1	1565072.3	487000 µg/L	487000 ppb	05:55:31
2	Sr 421.552†	540.4	543.9	5.3673 µg/L	5.3673 ppb	05:55:36
2	Sc 361.383	1805718.4	1805718.4	90.954 %		05:56:31
2	Y 371.029	1228018.1	1228018.1	90.004 %		05:56:31
2	Ag 328.068†	-5059.6	-5001.8	-9.5908 µg/L	-9.5908 ppb	05:56:37
2	As 188.979†	-21.4	-25.4	-45.117 µg/L	-45.117 ppb	05:56:58
2	B 249.677†	1526.6	1384.2	-181.82 µg/L	-181.82 ppb	05:56:37
2	Ba 233.527†	571.3	654.2	16.007 µg/L	16.007 ppb	05:56:58
2	Be 313.107†	-11496.9	-9039.9	-5.6307 µg/L	-5.6307 ppb	05:56:37
2	Cd 226.502†	1135.9	1395.1	-15.513 µg/L	-15.513 ppb	05:56:37
2	Co 228.616†	195.5	223.8	10.317 µg/L	10.317 ppb	05:56:58
2	Cr 267.716†	44.5	97.4	1.9827 µg/L	1.9827 ppb	05:56:58
2	Cu 324.752†	-9165.2	-12520.9	-19.059 µg/L	-19.059 ppb	05:56:37
2	Mn 257.610†	-6757.1	-7164.4	18.284 µg/L	18.284 ppb	05:56:31
2	Mo 202.031†	-214.0	-230.4	-5.8598 µg/L	-5.8598 ppb	05:56:58
2	Ni 231.604†	73.3	-221.9	-5.5184 µg/L	-5.5184 ppb	05:56:58
2	P 214.914†	294.3	297.0	378.47 µg/L	378.47 ppb	05:56:58
2	Pb 220.353†	155.8	84.4	17.405 µg/L	17.405 ppb	05:56:58

2	S 181.975 Axial†	31.0	16.6	69.085 µg/L	69.085 ppb	05:56:58
2	Sb 206.836†	40.3	20.7	-23.137 µg/L	-23.137 ppb	05:56:58
2	Se 196.026†	-150.6	-183.9	423.61 µg/L	423.61 ppb	05:56:58
2	SiO2†	993.3	-198.9	-40.621 µg/L	-40.621 ppb	05:56:58
2	Si 251.611†	-270.5	-592.5	-46.302 µg/L	-46.302 ppb	05:56:58
2	Sn 189.927†	-46.8	-51.7	-16.688 µg/L	-16.688 ppb	05:56:58
2	Ti 334.940†	13913.7	15202.1	4.6691 µg/L	4.6691 ppb	05:56:37
2	Tl 190.801†	-51.3	-32.7	31.741 µg/L	31.741 ppb	05:56:58
2	U 409.014†	144913.4	159414.9	13509 µg/L	13509 ppb	05:56:37
2	V 292.402†	-6475.8	-7074.2	-3.6633 µg/L	-3.6633 ppb	05:56:37
2	Zn 213.857†	2884.1	2706.9	14.882 µg/L	14.882 ppb	05:56:58
3	Sc RADIAL	54446.2	54446.2	95.1 %		05:55:48
3	Al 396.153Radial†	683090.5	718601.1	500570 µg/L	500570 ppb	05:55:42
3	Ca 317.933Radial†	524069.5	551107.9	478400 µg/L	478400 ppb	05:55:42
3	Fe 238.204 Radial†	55016.9	57861.3	457100 µg/L	457100 ppb	05:55:48
3	K 766.490 Radial†	107.6	-53.3	-36.694 µg/L	-36.694 ppb	05:55:48
3	Mg 279.077 IEC†	51742.1	54419.3	481430 µg/L	481430 ppb	05:55:48
3	Na 589.592 Radial†	1476745.7	1552948.6	483220 µg/L	483220 ppb	05:55:42
3	Sr 421.552†	540.1	542.7	5.3557 µg/L	5.3557 ppb	05:55:48
3	Sc 361.383	1800549.5	1800549.5	90.694 %		05:57:04
3	Y 371.029	1223975.7	1223975.7	89.708 %		05:57:04
3	Ag 328.068†	-5051.8	-5009.1	-9.7004 µg/L	-9.7004 ppb	05:57:10
3	As 188.979†	-22.7	-26.9	-47.744 µg/L	-47.744 ppb	05:57:30
3	B 249.677†	1475.9	1333.1	-183.56 µg/L	-183.56 ppb	05:57:10
3	Ba 233.527†	575.3	660.4	16.157 µg/L	16.157 ppb	05:57:30
3	Be 313.107†	-11477.1	-9054.4	-5.6402 µg/L	-5.6402 ppb	05:57:10
3	Cd 226.502†	1123.5	1384.9	-15.697 µg/L	-15.697 ppb	05:57:10
3	Co 228.616†	205.0	234.9	10.828 µg/L	10.828 ppb	05:57:30
3	Cr 267.716†	49.1	102.7	2.0919 µg/L	2.0919 ppb	05:57:30
3	Cu 324.752†	-9223.2	-12613.8	-19.771 µg/L	-19.771 ppb	05:57:10
3	Mn 257.610†	-6639.9	-7056.6	18.573 µg/L	18.573 ppb	05:57:04
3	Mo 202.031†	-197.2	-212.5	-4.0813 µg/L	-4.0813 ppb	05:57:30
3	Ni 231.604†	64.0	-231.9	-6.0446 µg/L	-6.0446 ppb	05:57:30
3	P 214.914†	294.2	297.8	379.67 µg/L	379.67 ppb	05:57:30
3	Pb 220.353†	162.6	92.4	19.138 µg/L	19.138 ppb	05:57:30
3	S 181.975 Axial†	28.1	13.6	56.517 µg/L	56.517 ppb	05:57:30
3	Sb 206.836†	56.9	39.1	-5.8092 µg/L	-5.8092 ppb	05:57:30
3	Se 196.026†	-161.6	-196.6	404.95 µg/L	404.95 ppb	05:57:30
3	SiO2†	1025.1	-160.6	-32.807 µg/L	-32.807 ppb	05:57:30
3	Si 251.611†	-324.1	-652.4	-50.989 µg/L	-50.989 ppb	05:57:30
3	Sn 189.927†	-46.8	-51.9	-16.749 µg/L	-16.749 ppb	05:57:30
3	Ti 334.940†	14345.5	15722.2	5.8871 µg/L	5.8871 ppb	05:57:10
3	Tl 190.801†	-40.8	-21.3	46.815 µg/L	46.815 ppb	05:57:30
3	U 409.014†	145552.5	160576.8	13608 µg/L	13608 ppb	05:57:10
3	V 292.402†	-6585.6	-7215.7	-5.0594 µg/L	-5.0594 ppb	05:57:10
3	Zn 213.857†	2872.9	2703.6	14.886 µg/L	14.886 ppb	05:57:30

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1808738.3	91.106 %		0.5060			0.56%
Sc RADIAL	54480.6	95.1 %		0.24			0.26%
Y 371.029	1229490.3	90.112 %		0.4676			0.52%
Ag 328.068†	-5042.0	-9.9029 µg/L		0.44900	-9.9029 ppb	0.44900	4.53%
Al 396.153Radial†	720215.0	501700 µg/L		2069.5	501700 ppb	2069.5	0.41%
QC value within limits for Al 396.153Radial Recovery = 100.34%							
As 188.979†	-26.7	-47.361 µg/L		2.0793	-47.361 ppb	2.0793	4.39%
B 249.677†	1362.4	-182.66 µg/L		0.872	-182.66 ppb	0.872	0.48%
Ba 233.527†	650.2	15.908 µg/L		0.3102	15.908 ppb	0.3102	1.95%
Be 313.107†	-9025.3	-5.6218 µg/L		0.02416	-5.6218 ppb	0.02416	0.43%
Ca 317.933Radial†	551580.9	478810 µg/L		2315.0	478810 ppb	2315.0	0.48%
QC value within limits for Ca 317.933Radial Recovery = 95.76%							
Cd 226.502†	1379.2	-15.912 µg/L		0.5393	-15.912 ppb	0.5393	3.39%
Co 228.616†	229.1	10.562 µg/L		0.2560	10.562 ppb	0.2560	2.42%
Cr 267.716†	117.6	2.4025 µg/L		0.63488	2.4025 ppb	0.63488	26.43%
Cu 324.752†	-12504.4	-18.966 µg/L		0.8545	-18.966 ppb	0.8545	4.51%
Fe 238.204 Radial†	57936.0	457690 µg/L		542.0	457690 ppb	542.0	0.12%
QC value within limits for Fe 238.204 Radial Recovery = 91.54%							
K 766.490 Radial†	-58.7	-40.427 µg/L		4.5669	-40.427 ppb	4.5669	11.30%
Mg 279.077 IEC†	54518.6	482310 µg/L		917.9	482310 ppb	917.9	0.19%

QC value within limits for Mg 279.077 IEC Recovery = 96.46%

Mn 257.610†	-7031.0	18.699 µg/L	0.4911	18.699 ppb	0.4911	2.63%
Mo 202.031†	-221.6	-4.9718 µg/L	0.88924	-4.9718 ppb	0.88924	17.89%
Na 589.592 Radial†	1556429.6	484310 µg/L	2343.6	484310 ppb	2343.6	0.48%

QC value within limits for Na 589.592 Radial Recovery = 96.86%

Ni 231.604†	-219.8	-5.4131 µg/L	0.69010	-5.4131 ppb	0.69010	12.75%
P 214.914†	295.0	373.86 µg/L	9.046	373.86 ppb	9.046	2.42%
Pb 220.353†	97.4	20.525 µg/L	3.9988	20.525 ppb	3.9988	19.48%
S 181.975 Axial†	13.0	53.887 µg/L	16.6695	53.887 ppb	16.6695	30.93%
Sb 206.836†	34.6	-10.012 µg/L	11.6083	-10.012 ppb	11.6083	115.94%
Se 196.026†	-181.5	427.35 µg/L	24.496	427.35 ppb	24.496	5.73%
SiO2†	-182.6	-37.289 µg/L	4.0317	-37.289 ppb	4.0317	10.81%
Si 251.611†	-631.0	-49.310 µg/L	2.6106	-49.310 ppb	2.6106	5.29%
Sn 189.927†	-51.7	-16.643 µg/L	0.1350	-16.643 ppb	0.1350	0.81%
Sr 421.552†	549.5	5.4226 µg/L	0.10600	5.4226 ppb	0.10600	1.95%
Ti 334.940†	15330.3	4.9193 µg/L	0.87018	4.9193 ppb	0.87018	17.69%
Tl 190.801†	-26.2	40.297 µg/L	7.7409	40.297 ppb	7.7409	19.21%
U 409.014†	159513.5	13517 µg/L	86.9	13517 ppb	86.9	0.64%

QC value within limits for U 409.014 Recovery = 90.11%

V 292.402†	-7067.7	-3.5948 µg/L	1.50003	-3.5948 ppb	1.50003	41.73%
Zn 213.857†	2693.3	14.561 µg/L	0.5597	14.561 ppb	0.5597	3.84%

All analyte(s) passed QC.

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 2/12/2010 05:57:40

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56261.5	56261.5	98.2 %		05:58:23
1	Al 396.153Radial†	390.7	422.0	89.472 µg/L	89.472 ppb	05:58:23
1	Ca 317.933Radial†	343.0	162.3	140.87 µg/L	140.87 ppb	05:58:43
1	Fe 238.204 Radial†	9.7	-3.8	167.88 µg/L	167.88 ppb	05:58:43
1	K 766.490 Radial†	440821.2	448593.0	308770 µg/L	308770 ppb	05:58:17
1	Mg 279.077 IEC†	5.4	-5.3	120.14 µg/L	120.14 ppb	05:58:43
1	Na 589.592 Radial†	1308.9	818.7	254.76 µg/L	254.76 ppb	05:58:23
1	Sr 421.552†	1013997.2	1032231.7	10186 µg/L	10186 ppb	05:58:17
1	Sc 361.383	2007217.4	2007217.4	101.10 %		06:00:14
1	Y 371.029	1368056.3	1368056.3	100.27 %		06:00:14
1	Ag 328.068†	-7472.8	-6830.2	13.333 µg/L	13.333 ppb	06:00:19
1	As 188.979†	5333.2	5273.2	9673.2 µg/L	9673.2 ppb	06:00:19
1	B 249.677†	118928.1	117335.6	4875.2 µg/L	4875.2 ppb	06:00:14
1	Ba 233.527†	571831.7	565615.2	13969 µg/L	13969 ppb	06:00:14
1	Be 313.107†	4634839.1	4587842.4	2847.1 µg/L	2847.1 ppb	06:00:03
1	Cd 226.502†	369651.8	365762.6	9508.5 µg/L	9508.5 ppb	06:00:14
1	Co 228.616†	202797.9	200592.9	9317.9 µg/L	9317.9 ppb	06:00:14
1	Cr 267.716†	1159564.7	1146954.6	23874 µg/L	23874 ppb	06:00:14
1	Cu 324.752†	3027603.0	2992107.4	19761 µg/L	19761 ppb	06:00:14
1	Mn 257.610†	2927187.8	2895497.3	9414.8 µg/L	9414.8 ppb	06:00:14
1	Mo 202.031†	99702.9	98619.3	9953.6 µg/L	9953.6 ppb	06:00:14
1	Ni 231.604†	186677.2	184336.8	9506.5 µg/L	9506.5 ppb	06:00:14
1	P 214.914†	7691.2	7580.6	13296 µg/L	13296 ppb	06:00:19
1	Pb 220.353†	99690.8	98515.6	24678 µg/L	24678 ppb	06:00:14
1	S 181.975 Axial†	12761.9	12605.2	52426 µg/L	52426 ppb	06:00:19
1	Sb 206.836†	11461.4	11312.6	10367 µg/L	10367 ppb	06:00:19
1	Se 196.026†	6884.6	6791.0	9753.3 µg/L	9753.3 ppb	06:00:19
1	SiO2†	484144.6	477568.4	97542 µg/L	97542 ppb	06:00:14
1	Si 251.611†	589090.1	582364.1	45512 µg/L	45512 ppb	06:00:14
1	Sn 189.927†	24252.1	23987.0	10382 µg/L	10382 ppb	06:00:19
1	Ti 334.940†	4303321.3	4256247.9	9828.3 µg/L	9828.3 ppb	06:00:03
1	Tl 190.801†	7205.8	7150.9	9535.6 µg/L	9535.6 ppb	06:00:19
1	U 409.014†	801.1	881.5	75.205 µg/L	75.205 ppb	06:00:14
1	V 292.402†	987974.2	977234.5	10010 µg/L	10010 ppb	06:00:14
1	Zn 213.857†	609432.5	602315.5	14125 µg/L	14125 ppb	06:00:14
2	Sc RADIAL	57061.3	57061.3	99.6 %		05:58:55
2	Al 396.153Radial†	394.4	420.1	91.255 µg/L	91.255 ppb	05:58:55
2	Ca 317.933Radial†	323.6	138.0	119.78 µg/L	119.78 ppb	05:59:15
2	Fe 238.204 Radial†	6.0	-7.6	134.87 µg/L	134.87 ppb	05:59:15
2	K 766.490 Radial†	440184.7	441664.3	304000 µg/L	304000 ppb	05:58:49
2	Mg 279.077 IEC†	3.2	-7.6	97.765 µg/L	97.765 ppb	05:59:15
2	Na 589.592 Radial†	1251.5	742.3	230.99 µg/L	230.99 ppb	05:58:55
2	Sr 421.552†	1012329.0	1016089.4	10027 µg/L	10027 ppb	05:58:49
2	Sc 361.383	2000586.8	2000586.8	100.77 %		06:00:38
2	Y 371.029	1364552.4	1364552.4	100.01 %		06:00:38
2	Ag 328.068†	-7257.3	-6640.8	13.739 µg/L	13.739 ppb	06:00:44
2	As 188.979†	5228.1	5186.4	9513.9 µg/L	9513.9 ppb	06:00:44
2	B 249.677†	117555.2	116363.0	4834.3 µg/L	4834.3 ppb	06:00:38
2	Ba 233.527†	562425.9	558155.8	13785 µg/L	13785 ppb	06:00:38
2	Be 313.107†	4600868.2	4569324.7	2835.6 µg/L	2835.6 ppb	06:00:28
2	Cd 226.502†	363377.8	360748.3	9378.1 µg/L	9378.1 ppb	06:00:38
2	Co 228.616†	199206.0	197693.2	9183.0 µg/L	9183.0 ppb	06:00:38
2	Cr 267.716†	1131639.3	1123043.8	23377 µg/L	23377 ppb	06:00:38
2	Cu 324.752†	2970008.5	2944877.9	19449 µg/L	19449 ppb	06:00:38
2	Mn 257.610†	2866712.4	2845079.6	9250.9 µg/L	9250.9 ppb	06:00:38
2	Mo 202.031†	97881.0	97138.2	9804.1 µg/L	9804.1 ppb	06:00:38
2	Ni 231.604†	183147.2	181445.8	9357.4 µg/L	9357.4 ppb	06:00:38
2	P 214.914†	7431.9	7348.5	12857 µg/L	12857 ppb	06:00:44
2	Pb 220.353†	98285.1	97447.4	24410 µg/L	24410 ppb	06:00:38

2	S 181.975 Axial†	12497.6	12384.7	51509 µg/L	51509 ppb	06:00:44
2	Sb 206.836†	11101.4	10993.0	10074 µg/L	10074 ppb	06:00:44
2	Se 196.026†	6732.3	6662.5	9568.6 µg/L	9568.6 ppb	06:00:44
2	SiO2†	477403.5	472465.9	96500 µg/L	96500 ppb	06:00:38
2	Si 251.611†	581232.8	576498.0	45054 µg/L	45054 ppb	06:00:38
2	Sn 189.927†	23231.0	23053.2	9977.5 µg/L	9977.5 ppb	06:00:44
2	Ti 334.940†	4271642.5	4238918.1	9788.3 µg/L	9788.3 ppb	06:00:28
2	Tl 190.801†	7090.7	7060.3	9415.4 µg/L	9415.4 ppb	06:00:44
2	U 409.014†	744.1	827.5	70.607 µg/L	70.607 ppb	06:00:38
2	V 292.402†	969147.1	961790.0	9851.1 µg/L	9851.1 ppb	06:00:38
2	Zn 213.857†	598685.9	593648.7	13922 µg/L	13922 ppb	06:00:38
3	Sc RADIAL	56814.2	56814.2	99.2 %		05:59:26
3	Al 396.153Radial†	427.9	455.6	142.43 µg/L	142.43 ppb	05:59:26
3	Ca 317.933Radial†	339.1	155.0	134.56 µg/L	134.56 ppb	05:59:47
3	Fe 238.204 Radial†	7.9	-5.7	124.29 µg/L	124.29 ppb	05:59:47
3	K 766.490 Radial†	443384.2	446811.4	307550 µg/L	307550 ppb	05:59:21
3	Mg 279.077 IEC†	4.2	-6.6	85.091 µg/L	85.091 ppb	05:59:47
3	Na 589.592 Radial†	1243.6	739.9	230.23 µg/L	230.23 ppb	05:59:26
3	Sr 421.552†	1022103.9	1030362.8	10168 µg/L	10168 ppb	05:59:21
3	Sc 361.383	2013123.0	2013123.0	101.40 %		06:01:03
3	Y 371.029	1372223.9	1372223.9	100.57 %		06:01:03
3	Ag 328.068†	-6176.9	-5530.5	13.525 µg/L	13.525 ppb	06:01:09
3	As 188.979†	4632.5	4566.7	8377.4 µg/L	8377.4 ppb	06:01:09
3	B 249.677†	107443.5	105664.6	4387.5 µg/L	4387.5 ppb	06:01:03
3	Ba 233.527†	498911.1	492043.1	12152 µg/L	12152 ppb	06:01:03
3	Be 313.107†	4260914.3	4205636.5	2609.9 µg/L	2609.9 ppb	06:00:53
3	Cd 226.502†	320598.3	316314.3	8222.9 µg/L	8222.9 ppb	06:01:03
3	Co 228.616†	173907.3	171513.1	7965.9 µg/L	7965.9 ppb	06:01:03
3	Cr 267.716†	963566.7	950300.5	19781 µg/L	19781 ppb	06:01:03
3	Cu 324.752†	2598045.3	2559700.7	16906 µg/L	16906 ppb	06:01:03
3	Mn 257.610†	2507511.4	2473126.8	8041.5 µg/L	8041.5 ppb	06:01:03
3	Mo 202.031†	85538.8	84361.6	8514.6 µg/L	8514.6 ppb	06:01:03
3	Ni 231.604†	159984.0	157470.8	8121.0 µg/L	8121.0 ppb	06:01:03
3	P 214.914†	6413.9	6298.7	10994 µg/L	10994 ppb	06:01:09
3	Pb 220.353†	88331.4	87023.9	21799 µg/L	21799 ppb	06:01:03
3	S 181.975 Axial†	11117.0	10945.9	45525 µg/L	45525 ppb	06:01:09
3	Sb 206.836†	9709.4	9551.6	8759.1 µg/L	8759.1 ppb	06:01:09
3	Se 196.026†	5941.0	5840.6	8388.1 µg/L	8388.1 ppb	06:01:09
3	SiO2†	429862.5	422631.6	86321 µg/L	86321 ppb	06:01:03
3	Si 251.611†	523050.7	515528.0	40289 µg/L	40289 ppb	06:01:03
3	Sn 189.927†	19810.4	19536.3	8455.4 µg/L	8455.4 ppb	06:01:09
3	Ti 334.940†	3953747.2	3899018.1	9003.4 µg/L	9003.4 ppb	06:00:53
3	Tl 190.801†	6548.5	6481.7	8643.7 µg/L	8643.7 ppb	06:01:09
3	U 409.014†	688.0	767.6	65.494 µg/L	65.494 ppb	06:01:03
3	V 292.402†	843827.1	832212.6	8523.1 µg/L	8523.1 ppb	06:01:03
3	Zn 213.857†	526188.5	518453.5	12159 µg/L	12159 ppb	06:01:03

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2006975.7	101.09 %		0.316			0.31%
Sc RADIAL	56712.3	99.0 %		0.71			0.72%
Y 371.029	1368277.5	100.28 %		0.281			0.28%
Ag 328.068†	-6333.9	13.532 µg/L		0.2027	13.532 ppb	0.2027	1.50%
Al 396.153Radial†	432.6	107.72 µg/L		30.075	107.72 ppb	30.075	27.92%
As 188.979†	5008.7	9188.2 µg/L		706.63	9188.2 ppb	706.63	7.69%
QC value within limits for As 188.979 Recovery = 91.88%							
B 249.677†	113121.0	4699.0 µg/L		270.52	4699.0 ppb	270.52	5.76%
QC value within limits for B 249.677 Recovery = 93.98%							
Ba 233.527†	538604.7	13302 µg/L		1000.3	13302 ppb	1000.3	7.52%
QC value less than the lower limit for Ba 233.527 Recovery = 88.68%							
Be 313.107†	4454267.9	2764.2 µg/L		133.75	2764.2 ppb	133.75	4.84%
QC value within limits for Be 313.107 Recovery = 92.14%							
Ca 317.933Radial†	151.8	131.74 µg/L		10.828	131.74 ppb	10.828	8.22%
Cd 226.502†	347608.4	9036.5 µg/L		707.60	9036.5 ppb	707.60	7.83%
QC value within limits for Cd 226.502 Recovery = 90.37%							
Co 228.616†	189933.1	8822.3 µg/L		744.73	8822.3 ppb	744.73	8.44%
QC value less than the lower limit for Co 228.616 Recovery = 88.22%							
Cr 267.716†	1073433.0	22344 µg/L		2233.5	22344 ppb	2233.5	10.00%
QC value less than the lower limit for Cr 267.716 Recovery = 89.38%							

Cu 324.752†	2832228.7	18705 µg/L	1566.6	18705 ppb	1566.6	8.37%
QC value within limits for Cu 324.752 Recovery = 93.53%						
Fe 238.204 Radial†	-5.7	142.34 µg/L	22.737	142.34 ppb	22.737	15.97%
K 766.490 Radial†	445689.6	306780 µg/L	2476.6	306780 ppb	2476.6	0.81%
QC value within limits for K 766.490 Radial Recovery = 102.26%						
Mg 279.077 IEC†	-6.5	101.00 µg/L	17.746	101.00 ppb	17.746	17.57%
Mn 257.610†	2737901.2	8902.4 µg/L	750.08	8902.4 ppb	750.08	8.43%
QC value less than the lower limit for Mn 257.610 Recovery = 89.02%						
Mo 202.031†	93373.0	9424.1 µg/L	791.20	9424.1 ppb	791.20	8.40%
QC value within limits for Mo 202.031 Recovery = 94.24%						
Na 589.592 Radial†	767.0	238.66 µg/L	13.947	238.66 ppb	13.947	5.84%
Ni 231.604†	174417.8	8995.0 µg/L	760.55	8995.0 ppb	760.55	8.46%
QC value less than the lower limit for Ni 231.604 Recovery = 89.95%						
P 214.914†	7075.9	12382 µg/L	1222.3	12382 ppb	1222.3	9.87%
QC value less than the lower limit for P 214.914 Recovery = 82.55%						
Pb 220.353†	94329.0	23629 µg/L	1590.3	23629 ppb	1590.3	6.73%
QC value within limits for Pb 220.353 Recovery = 94.52%						
S 181.975 Axial†	11978.6	49820 µg/L	3747.8	49820 ppb	3747.8	7.52%
QC value within limits for S 181.975 Axial Recovery = 99.64%						
Sb 206.836†	10619.0	9733.4 µg/L	856.31	9733.4 ppb	856.31	8.80%
QC value within limits for Sb 206.836 Recovery = 97.33%						
Se 196.026†	6431.4	9236.7 µg/L	740.64	9236.7 ppb	740.64	8.02%
QC value within limits for Se 196.026 Recovery = 92.37%						
SiO2†	457555.3	93454 µg/L	6199.3	93454 ppb	6199.3	6.63%
QC value less than the lower limit for SiO2 Recovery = 87.34%						
Si 251.611†	558130.0	43618 µg/L	2892.4	43618 ppb	2892.4	6.63%
QC value less than the lower limit for Si 251.611 Recovery = 87.24%						
Sn 189.927†	22192.2	9604.8 µg/L	1015.76	9604.8 ppb	1015.76	10.58%
QC value within limits for Sn 189.927 Recovery = 96.05%						
Sr 421.552†	1026228.0	10127 µg/L	87.1	10127 ppb	87.1	0.86%
QC value within limits for Sr 421.552 Recovery = 101.27%						
Ti 334.940†	4131394.7	9540.0 µg/L	465.13	9540.0 ppb	465.13	4.88%
QC value within limits for Ti 334.940 Recovery = 95.40%						
Tl 190.801†	6897.6	9198.2 µg/L	483.99	9198.2 ppb	483.99	5.26%
QC value within limits for Tl 190.801 Recovery = 91.98%						
U 409.014†	825.5	70.436 µg/L	4.8576	70.436 ppb	4.8576	6.90%
V 292.402†	923745.7	9461.2 µg/L	816.29	9461.2 ppb	816.29	8.63%
QC value within limits for V 292.402 Recovery = 94.61%						
Zn 213.857†	571472.6	13402 µg/L	1081.4	13402 ppb	1081.4	8.07%
QC value less than the lower limit for Zn 213.857 Recovery = 89.35%						
QC Failed. Continue with analysis.						

Sequence No.: 13  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/12/2010 06:01:18  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58591.4	58591.4	102 %		06:01:56
1	Al 396.153Radial†	7163.6	7026.8	4884.4 µg/L	4884.4 ppb	06:01:56
1	Ca 317.933Radial†	5879.8	5560.8	4827.1 µg/L	4827.1 ppb	06:02:16
1	Fe 238.204 Radial†	649.3	621.0	4916.8 µg/L	4916.8 ppb	06:02:16
1	K 766.490 Radial†	7708.4	7368.6	5072.0 µg/L	5072.0 ppb	06:01:56
1	Mg 279.077 IEC†	590.1	566.1	5016.0 µg/L	5016.0 ppb	06:02:16
1	Na 589.592 Radial†	32374.2	31132.9	9687.5 µg/L	9687.5 ppb	06:01:56
1	Sr 421.552†	50798.7	49631.6	489.77 µg/L	489.77 ppb	06:01:56
1	Sc 361.383	2014753.0	2014753.0	101.48 %		06:03:20
1	Y 371.029	1379901.4	1379901.4	101.14 %		06:03:20
1	Ag 328.068†	63932.5	63559.2	485.93 µg/L	485.93 ppb	06:03:25
1	As 188.979†	285.1	279.1	512.04 µg/L	512.04 ppb	06:03:46
1	B 249.677†	12519.1	12041.9	494.65 µg/L	494.65 ppb	06:03:25
1	Ba 233.527†	20214.8	19945.4	492.85 µg/L	492.85 ppb	06:03:25
1	Be 313.107†	796416.9	788376.8	489.71 µg/L	489.71 ppb	06:03:20
1	Cd 226.502†	19288.5	19152.8	497.35 µg/L	497.35 ppb	06:03:25
1	Co 228.616†	10829.8	10680.4	496.18 µg/L	496.18 ppb	06:03:25
1	Cr 267.716†	24241.9	23936.1	498.42 µg/L	498.42 ppb	06:03:25
1	Cu 324.752†	77871.5	74289.2	491.32 µg/L	491.32 ppb	06:03:25
1	Mn 257.610†	154416.0	152423.7	496.06 µg/L	496.06 ppb	06:03:20
1	Mo 202.031†	5088.7	5019.2	506.77 µg/L	506.77 ppb	06:03:46
1	Ni 231.604†	10083.5	9633.7	496.87 µg/L	496.87 ppb	06:03:25
1	P 214.914†	1306.9	1261.1	2486.7 µg/L	2486.7 ppb	06:03:46
1	Pb 220.353†	2182.0	2063.2	517.13 µg/L	517.13 ppb	06:03:46
1	S 181.975 Axial†	268.0	246.7	1026.0 µg/L	1026.0 ppb	06:03:46
1	Sb 206.836†	575.1	543.1	505.04 µg/L	505.04 ppb	06:03:46
1	Se 196.026†	375.8	352.0	513.14 µg/L	513.14 ppb	06:03:46
1	SiO2†	27474.1	25781.6	5265.8 µg/L	5265.8 ppb	06:03:25
1	Si 251.611†	32279.4	31512.5	2462.7 µg/L	2462.7 ppb	06:03:25
1	Sn 189.927†	1195.1	1177.3	509.59 µg/L	509.59 ppb	06:03:46
1	Ti 334.940†	213343.7	210130.1	484.90 µg/L	484.90 ppb	06:03:20
1	Tl 190.801†	362.0	380.4	508.17 µg/L	508.17 ppb	06:03:46
1	U 409.014†	5766.7	5771.5	491.46 µg/L	491.46 ppb	06:03:25
1	V 292.402†	49205.2	48531.7	496.69 µg/L	496.69 ppb	06:03:25
1	Zn 213.857†	21952.5	21167.6	495.51 µg/L	495.51 ppb	06:03:25
2	Sc RADIAL	58893.2	58893.2	103 %		06:02:22
2	Al 396.153Radial†	7170.0	6997.2	4863.9 µg/L	4863.9 ppb	06:02:22
2	Ca 317.933Radial†	5840.3	5492.9	4768.2 µg/L	4768.2 ppb	06:02:42
2	Fe 238.204 Radial†	645.6	614.2	4862.6 µg/L	4862.6 ppb	06:02:42
2	K 766.490 Radial†	7719.8	7341.2	5053.1 µg/L	5053.1 ppb	06:02:22
2	Mg 279.077 IEC†	583.3	556.5	4931.0 µg/L	4931.0 ppb	06:02:42
2	Na 589.592 Radial†	32477.5	31071.1	9668.2 µg/L	9668.2 ppb	06:02:22
2	Sr 421.552†	51118.7	49688.5	490.33 µg/L	490.33 ppb	06:02:22
2	Sc 361.383	2020265.1	2020265.1	101.76 %		06:03:53
2	Y 371.029	1383120.7	1383120.7	101.37 %		06:03:53
2	Ag 328.068†	63879.6	63335.3	484.22 µg/L	484.22 ppb	06:03:59
2	As 188.979†	280.6	273.9	502.49 µg/L	502.49 ppb	06:04:19
2	B 249.677†	12490.4	11980.0	492.12 µg/L	492.12 ppb	06:03:59
2	Ba 233.527†	20257.7	19933.2	492.55 µg/L	492.55 ppb	06:03:59
2	Be 313.107†	795082.9	784924.7	487.56 µg/L	487.56 ppb	06:03:53
2	Cd 226.502†	19296.6	19108.9	496.21 µg/L	496.21 ppb	06:03:59
2	Co 228.616†	10825.3	10646.9	494.62 µg/L	494.62 ppb	06:03:59
2	Cr 267.716†	24198.7	23828.5	496.18 µg/L	496.18 ppb	06:03:59
2	Cu 324.752†	77998.1	74204.2	490.76 µg/L	490.76 ppb	06:03:59
2	Mn 257.610†	154103.5	151701.5	493.71 µg/L	493.71 ppb	06:03:53
2	Mo 202.031†	5049.7	4967.2	501.52 µg/L	501.52 ppb	06:04:19
2	Ni 231.604†	10080.2	9603.3	495.31 µg/L	495.31 ppb	06:03:59
2	P 214.914†	1279.5	1230.7	2425.6 µg/L	2425.6 ppb	06:04:19
2	Pb 220.353†	2157.0	2032.7	509.48 µg/L	509.48 ppb	06:04:19

2	S 181.975 Axial†	261.0	239.0	994.16 µg/L	994.16 ppb	06:04:19
2	Sb 206.836†	569.5	535.9	498.40 µg/L	498.40 ppb	06:04:19
2	Se 196.026†	377.9	353.0	514.53 µg/L	514.53 ppb	06:04:19
2	SiO2†	27429.4	25663.8	5241.8 µg/L	5241.8 ppb	06:03:59
2	Si 251.611†	32340.0	31485.3	2460.6 µg/L	2460.6 ppb	06:03:59
2	Sn 189.927†	1192.0	1171.0	506.87 µg/L	506.87 ppb	06:04:19
2	Ti 334.940†	213174.5	209390.3	483.20 µg/L	483.20 ppb	06:03:53
2	Tl 190.801†	357.9	375.4	501.50 µg/L	501.50 ppb	06:04:19
2	U 409.014†	5751.5	5741.1	488.88 µg/L	488.88 ppb	06:03:59
2	V 292.402†	49313.4	48505.7	496.37 µg/L	496.37 ppb	06:03:59
2	Zn 213.857†	21967.2	21123.0	494.48 µg/L	494.48 ppb	06:03:59
3	Sc RADIAL	58261.6	58261.6	102 %		06:02:48
3	Al 396.153Radial†	7068.5	6973.0	4848.7 µg/L	4848.7 ppb	06:02:48
3	Ca 317.933Radial†	5812.9	5527.5	4798.3 µg/L	4798.3 ppb	06:03:08
3	Fe 238.204 Radial†	646.9	622.2	4925.4 µg/L	4925.4 ppb	06:03:08
3	K 766.490 Radial†	7595.4	7300.2	5024.9 µg/L	5024.9 ppb	06:02:48
3	Mg 279.077 IEC†	586.7	566.0	5013.9 µg/L	5013.9 ppb	06:03:08
3	Na 589.592 Radial†	32073.8	31016.7	9651.3 µg/L	9651.3 ppb	06:02:48
3	Sr 421.552†	50357.7	49479.2	488.27 µg/L	488.27 ppb	06:02:48
3	Sc 361.383	2030040.3	2030040.3	102.25 %		06:04:26
3	Y 371.029	1390321.5	1390321.5	101.90 %		06:04:26
3	Ag 328.068†	61253.1	60464.4	462.18 µg/L	462.18 ppb	06:04:32
3	As 188.979†	247.7	240.4	441.09 µg/L	441.09 ppb	06:04:53
3	B 249.677†	11942.9	11385.4	467.51 µg/L	467.51 ppb	06:04:32
3	Ba 233.527†	19022.7	18629.5	460.32 µg/L	460.32 ppb	06:04:32
3	Be 313.107†	771177.3	757783.6	470.71 µg/L	470.71 ppb	06:04:26
3	Cd 226.502†	18006.9	17756.2	461.04 µg/L	461.04 ppb	06:04:32
3	Co 228.616†	10084.2	9870.8	458.50 µg/L	458.50 ppb	06:04:32
3	Cr 267.716†	22056.0	21618.5	450.17 µg/L	450.17 ppb	06:04:32
3	Cu 324.752†	72740.4	68693.3	454.37 µg/L	454.37 ppb	06:04:32
3	Mn 257.610†	149582.1	146550.5	476.97 µg/L	476.97 ppb	06:04:26
3	Mo 202.031†	4281.4	4191.9	423.28 µg/L	423.28 ppb	06:04:53
3	Ni 231.604†	9378.0	8868.9	457.43 µg/L	457.43 ppb	06:04:32
3	P 214.914†	1122.9	1071.5	2108.3 µg/L	2108.3 ppb	06:04:53
3	Pb 220.353†	1902.2	1773.4	444.37 µg/L	444.37 ppb	06:04:53
3	S 181.975 Axial†	236.9	214.3	891.13 µg/L	891.13 ppb	06:04:53
3	Sb 206.836†	502.8	468.0	434.73 µg/L	434.73 ppb	06:04:53
3	Se 196.026†	336.7	311.0	454.24 µg/L	454.24 ppb	06:04:53
3	SiO2†	25928.0	24065.7	4915.3 µg/L	4915.3 ppb	06:04:32
3	Si 251.611†	30496.5	29529.4	2307.7 µg/L	2307.7 ppb	06:04:32
3	Sn 189.927†	994.4	972.2	420.82 µg/L	420.82 ppb	06:04:53
3	Ti 334.940†	205958.6	201324.7	464.57 µg/L	464.57 ppb	06:04:26
3	Tl 190.801†	327.2	343.8	459.56 µg/L	459.56 ppb	06:04:53
3	U 409.014†	5278.0	5250.8	447.03 µg/L	447.03 ppb	06:04:32
3	V 292.402†	45550.2	44592.1	456.07 µg/L	456.07 ppb	06:04:32
3	Zn 213.857†	20409.6	19495.8	456.33 µg/L	456.33 ppb	06:04:32

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2021686.1	101.83 %	0.390			0.38%
Sc RADIAL	58582.1	102 %	0.6			0.54%
Y 371.029	1384447.8	101.47 %	0.391			0.39%
Ag 328.068†	62452.9	477.44 µg/L	13.247	477.44 ppb	13.247	2.77%
QC value within limits for Ag 328.068 Recovery = 95.49%						
Al 396.153Radial†	6999.0	4865.7 µg/L	17.94	4865.7 ppb	17.94	0.37%
QC value within limits for Al 396.153Radial Recovery = 97.31%						
As 188.979†	264.5	485.21 µg/L	38.506	485.21 ppb	38.506	7.94%
QC value within limits for As 188.979 Recovery = 97.04%						
B 249.677†	11802.4	484.76 µg/L	14.996	484.76 ppb	14.996	3.09%
QC value within limits for B 249.677 Recovery = 96.95%						
Ba 233.527†	19502.7	481.91 µg/L	18.694	481.91 ppb	18.694	3.88%
QC value within limits for Ba 233.527 Recovery = 96.38%						
Be 313.107†	777028.4	482.66 µg/L	10.408	482.66 ppb	10.408	2.16%
QC value within limits for Be 313.107 Recovery = 96.53%						
Ca 317.933Radial†	5527.1	4797.9 µg/L	29.47	4797.9 ppb	29.47	0.61%
QC value within limits for Ca 317.933Radial Recovery = 95.96%						
Cd 226.502†	18672.6	484.87 µg/L	20.643	484.87 ppb	20.643	4.26%
QC value within limits for Cd 226.502 Recovery = 96.97%						
Co 228.616†	10399.4	483.10 µg/L	21.321	483.10 ppb	21.321	4.41%



QC value within limits for Co 228.616	Recovery = 96.62%			
Cr 267.716†	23127.7	481.59 µg/L	27.236	5.66%
QC value within limits for Cr 267.716	Recovery = 96.32%			
Cu 324.752†	72395.6	478.82 µg/L	21.175	4.42%
QC value within limits for Cu 324.752	Recovery = 95.76%			
Fe 238.204 Radial†	619.2	4901.6 µg/L	34.00	0.69%
QC value within limits for Fe 238.204 Radial	Recovery = 98.03%			
K 766.490 Radial†	7336.7	5050.0 µg/L	23.70	0.47%
QC value within limits for K 766.490 Radial	Recovery = 101.00%			
Mg 279.077 IEC†	562.8	4987.0 µg/L	48.49	0.97%
QC value within limits for Mg 279.077 IEC	Recovery = 99.74%			
Mn 257.610†	150225.2	488.91 µg/L	10.413	2.13%
QC value within limits for Mn 257.610	Recovery = 97.78%			
Mo 202.031†	4726.1	477.19 µg/L	46.763	9.80%
QC value within limits for Mo 202.031	Recovery = 95.44%			
Na 589.592 Radial†	31073.6	9669.0 µg/L	18.09	0.19%
QC value within limits for Na 589.592 Radial	Recovery = 96.69%			
Ni 231.604†	9368.6	483.20 µg/L	22.333	4.62%
QC value within limits for Ni 231.604	Recovery = 96.64%			
P 214.914†	1187.8	2340.2 µg/L	203.14	8.68%
QC value within limits for P 214.914	Recovery = 93.61%			
Pb 220.353†	1956.4	490.32 µg/L	39.980	8.15%
QC value within limits for Pb 220.353	Recovery = 98.06%			
S 181.975 Axial†	233.3	970.42 µg/L	70.492	7.26%
QC value within limits for S 181.975 Axial	Recovery = 97.04%			
Sb 206.836†	515.7	479.39 µg/L	38.819	8.10%
QC value within limits for Sb 206.836	Recovery = 95.88%			
Se 196.026†	338.7	493.97 µg/L	34.416	6.97%
QC value within limits for Se 196.026	Recovery = 98.79%			
SiO2†	25170.4	5141.0 µg/L	195.77	3.81%
QC value within limits for SiO2	Recovery = 96.14%			
Si 251.611†	30842.4	2410.3 µg/L	88.87	3.69%
QC value within limits for Si 251.611	Recovery = 96.41%			
Sn 189.927†	1106.9	479.09 µg/L	50.484	10.54%
QC value within limits for Sn 189.927	Recovery = 95.82%			
Sr 421.552†	49599.8	489.46 µg/L	1.068	0.22%
QC value within limits for Sr 421.552	Recovery = 97.89%			
Ti 334.940†	206948.3	477.56 µg/L	11.280	2.36%
QC value within limits for Ti 334.940	Recovery = 95.51%			
Tl 190.801†	366.5	489.74 µg/L	26.352	5.38%
QC value within limits for Tl 190.801	Recovery = 97.95%			
U 409.014†	5587.8	475.79 µg/L	24.939	5.24%
QC value within limits for U 409.014	Recovery = 95.16%			
V 292.402†	47209.8	483.05 µg/L	23.361	4.84%
QC value within limits for V 292.402	Recovery = 96.61%			
Zn 213.857†	20595.5	482.11 µg/L	22.326	4.63%
QC value within limits for Zn 213.857	Recovery = 96.42%			

All analyte(s) passed QC.

Sequence No.: 14  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/12/2010 06:05:02  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56996.9	56996.9	99.5 %		06:05:35
1	Al 396.153Radial†	44.6	69.1	48.091 µg/L	48.091 ppb	06:05:35
1	Ca 317.933Radial†	235.3	49.6	43.015 µg/L	43.015 ppb	06:05:56
1	Fe 238.204 Radial†	21.2	7.6	60.285 µg/L	60.285 ppb	06:05:56
1	K 766.490 Radial†	296.4	131.3	90.373 µg/L	90.373 ppb	06:05:35
1	Mg 279.077 IEC†	18.4	7.6	67.658 µg/L	67.658 ppb	06:05:56
1	Na 589.592 Radial†	828.9	319.1	99.303 µg/L	99.303 ppb	06:05:35
1	Sr 421.552†	91.9	66.9	0.6602 µg/L	0.6602 ppb	06:05:35
1	Sc 361.383	1997421.7	1997421.7	100.61 %		06:06:58
1	Y 371.029	1372275.4	1372275.4	100.58 %		06:06:58
1	Ag 328.068†	-425.2	138.4	1.0571 µg/L	1.0571 ppb	06:07:03
1	As 188.979†	4.7	2.9	5.2454 µg/L	5.2454 ppb	06:07:24
1	B 249.677†	434.1	137.2	5.6266 µg/L	5.6266 ppb	06:07:24
1	Ba 233.527†	-2.4	23.7	0.5844 µg/L	0.5844 ppb	06:07:24
1	Be 313.107†	-3419.2	201.9	0.1252 µg/L	0.1252 ppb	06:07:03
1	Cd 226.502†	-128.4	18.5	0.4748 µg/L	0.4748 ppb	06:07:24
1	Co 228.616†	2.6	11.5	0.5325 µg/L	0.5325 ppb	06:07:24
1	Cr 267.716†	-2.9	45.6	0.9499 µg/L	0.9499 ppb	06:07:03
1	Cu 324.752†	2906.4	444.6	2.9449 µg/L	2.9449 ppb	06:07:03
1	Mn 257.610†	-123.3	142.1	0.4675 µg/L	0.4675 ppb	06:07:24
1	Mo 202.031†	2.6	7.4	0.7500 µg/L	0.7500 ppb	06:07:24
1	Ni 231.604†	319.1	14.6	0.7563 µg/L	0.7563 ppb	06:07:24
1	P 214.914†	26.4	-0.4	-1.1386 µg/L	-1.1386 ppb	06:07:24
1	Pb 220.353†	125.5	37.8	9.4794 µg/L	9.4794 ppb	06:07:24
1	S 181.975 Axial†	16.3	-1.3	-5.3432 µg/L	-5.3432 ppb	06:07:24
1	Sb 206.836†	21.9	-1.9	-1.7616 µg/L	-1.7616 ppb	06:07:24
1	Se 196.026†	11.8	-6.7	-9.4690 µg/L	-9.4690 ppb	06:07:24
1	SiO2†	1383.6	84.2	17.208 µg/L	17.208 ppb	06:07:03
1	Si 251.611†	384.8	87.4	6.8307 µg/L	6.8307 ppb	06:07:24
1	Sn 189.927†	5.2	4.9	2.1122 µg/L	2.1122 ppb	06:07:24
1	Ti 334.940†	334.5	237.2	0.5430 µg/L	0.5430 ppb	06:07:03
1	Tl 190.801†	-25.3	-1.4	-1.8708 µg/L	-1.8708 ppb	06:07:24
1	U 409.014†	-126.6	-36.7	-3.1395 µg/L	-3.1395 ppb	06:07:03
1	V 292.402†	-1.0	44.7	0.4637 µg/L	0.4637 ppb	06:07:03
1	Zn 213.857†	561.7	94.3	2.2082 µg/L	2.2082 ppb	06:07:24
2	Sc RADIAL	58022.4	58022.4	101 %		06:06:01
2	Al 396.153Radial†	22.7	46.6	32.468 µg/L	32.468 ppb	06:06:01
2	Ca 317.933Radial†	223.6	33.9	29.395 µg/L	29.395 ppb	06:06:22
2	Fe 238.204 Radial†	20.2	6.2	49.208 µg/L	49.208 ppb	06:06:22
2	K 766.490 Radial†	290.7	120.5	82.927 µg/L	82.927 ppb	06:06:01
2	Mg 279.077 IEC†	15.3	4.3	38.074 µg/L	38.074 ppb	06:06:22
2	Na 589.592 Radial†	805.7	281.5	87.607 µg/L	87.607 ppb	06:06:01
2	Sr 421.552†	55.4	29.3	0.2892 µg/L	0.2892 ppb	06:06:01
2	Sc 361.383	1992563.4	1992563.4	100.37 %		06:07:30
2	Y 371.029	1368928.0	1368928.0	100.33 %		06:07:30
2	Ag 328.068†	-526.2	36.8	0.2842 µg/L	0.2842 ppb	06:07:35
2	As 188.979†	0.4	-1.5	-2.7073 µg/L	-2.7073 ppb	06:07:56
2	B 249.677†	431.7	135.9	5.5789 µg/L	5.5789 ppb	06:07:56
2	Ba 233.527†	-2.0	24.1	0.5942 µg/L	0.5942 ppb	06:07:56
2	Be 313.107†	-3322.8	289.7	0.1798 µg/L	0.1798 ppb	06:07:35
2	Cd 226.502†	-120.8	25.8	0.6672 µg/L	0.6672 ppb	06:07:56
2	Co 228.616†	12.7	21.5	1.0015 µg/L	1.0015 ppb	06:07:56
2	Cr 267.716†	2.3	50.8	1.0574 µg/L	1.0574 ppb	06:07:35
2	Cu 324.752†	2821.8	367.3	2.4330 µg/L	2.4330 ppb	06:07:35
2	Mn 257.610†	-115.3	149.8	0.4921 µg/L	0.4921 ppb	06:07:56
2	Mo 202.031†	7.0	11.8	1.1906 µg/L	1.1906 ppb	06:07:56
2	Ni 231.604†	332.1	28.4	1.4652 µg/L	1.4652 ppb	06:07:56
2	P 214.914†	21.9	-4.8	-9.8397 µg/L	-9.8397 ppb	06:07:56
2	Pb 220.353†	116.9	29.6	7.4079 µg/L	7.4079 ppb	06:07:56

2	S 181.975 Axial†	14.9	-2.5	-10.596 µg/L	-10.596 ppb	06:07:56
2	Sb 206.836†	25.7	1.9	1.7880 µg/L	1.7880 ppb	06:07:56
2	Se 196.026†	24.2	5.8	8.3609 µg/L	8.3609 ppb	06:07:56
2	SiO2†	1367.9	72.0	14.696 µg/L	14.696 ppb	06:07:35
2	Si 251.611†	394.1	97.5	7.6233 µg/L	7.6233 ppb	06:07:56
2	Sn 189.927†	10.7	10.4	4.4847 µg/L	4.4847 ppb	06:07:56
2	Ti 334.940†	321.7	225.2	0.5175 µg/L	0.5175 ppb	06:07:35
2	Tl 190.801†	-22.7	1.1	1.4276 µg/L	1.4276 ppb	06:07:56
2	U 409.014†	-83.9	5.5	0.4645 µg/L	0.4645 ppb	06:07:35
2	V 292.402†	-19.4	26.4	0.2845 µg/L	0.2845 ppb	06:07:35
2	Zn 213.857†	547.1	81.1	1.8959 µg/L	1.8959 ppb	06:07:56
3	Sc RADIAL	57203.1	57203.1	99.9 %		06:06:27
3	Al 396.153Radial†	29.8	54.1	37.662 µg/L	37.662 ppb	06:06:27
3	Ca 317.933Radial†	218.0	31.4	27.218 µg/L	27.218 ppb	06:06:47
3	Fe 238.204 Radial†	19.1	5.4	42.624 µg/L	42.624 ppb	06:06:47
3	K 766.490 Radial†	194.1	27.9	19.181 µg/L	19.181 ppb	06:06:27
3	Mg 279.077 IEC†	20.1	9.2	81.881 µg/L	81.881 ppb	06:06:47
3	Na 589.592 Radial†	721.0	208.1	64.743 µg/L	64.743 ppb	06:06:27
3	Sr 421.552†	77.1	51.8	0.5110 µg/L	0.5110 ppb	06:06:27
3	Sc 361.383	1988910.1	1988910.1	100.18 %		06:08:02
3	Y 371.029	1366723.4	1366723.4	100.17 %		06:08:02
3	Ag 328.068†	-400.8	161.0	1.2254 µg/L	1.2254 ppb	06:08:07
3	As 188.979†	-2.4	-4.2	-7.6980 µg/L	-7.6980 ppb	06:08:28
3	B 249.677†	415.2	120.2	4.9335 µg/L	4.9335 ppb	06:08:28
3	Ba 233.527†	1.7	27.7	0.6844 µg/L	0.6844 ppb	06:08:28
3	Be 313.107†	-3469.3	137.4	0.0852 µg/L	0.0852 ppb	06:08:07
3	Cd 226.502†	-117.5	28.9	0.7462 µg/L	0.7462 ppb	06:08:28
3	Co 228.616†	-0.2	8.6	0.4017 µg/L	0.4017 ppb	06:08:28
3	Cr 267.716†	5.8	54.3	1.1301 µg/L	1.1301 ppb	06:08:07
3	Cu 324.752†	2860.1	410.7	2.7185 µg/L	2.7185 ppb	06:08:07
3	Mn 257.610†	-138.6	126.3	0.4130 µg/L	0.4130 ppb	06:08:28
3	Mo 202.031†	4.3	9.1	0.9188 µg/L	0.9188 ppb	06:08:28
3	Ni 231.604†	318.9	15.8	0.8158 µg/L	0.8158 ppb	06:08:28
3	P 214.914†	18.4	-8.3	-16.903 µg/L	-16.903 ppb	06:08:28
3	Pb 220.353†	117.3	30.2	7.5459 µg/L	7.5459 ppb	06:08:28
3	S 181.975 Axial†	20.3	2.8	11.807 µg/L	11.807 ppb	06:08:28
3	Sb 206.836†	31.8	8.1	7.5021 µg/L	7.5021 ppb	06:08:28
3	Se 196.026†	12.6	-5.8	-8.2985 µg/L	-8.2985 ppb	06:08:28
3	SiO2†	1371.5	78.1	15.944 µg/L	15.944 ppb	06:08:07
3	Si 251.611†	378.0	82.3	6.4281 µg/L	6.4281 ppb	06:08:28
3	Sn 189.927†	5.2	4.9	2.1092 µg/L	2.1092 ppb	06:08:28
3	Ti 334.940†	309.9	214.0	0.4881 µg/L	0.4881 ppb	06:08:07
3	Tl 190.801†	-25.4	-1.6	-2.1533 µg/L	-2.1533 ppb	06:08:28
3	U 409.014†	0.6	89.7	7.6430 µg/L	7.6430 ppb	06:08:07
3	V 292.402†	-31.4	14.3	0.1673 µg/L	0.1673 ppb	06:08:07
3	Zn 213.857†	553.6	88.6	2.0737 µg/L	2.0737 ppb	06:08:28

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1992965.1	100.39 %	0.215			0.21%
Sc RADIAL	57407.5	100 %	0.9			0.94%
Y 371.029	1369308.9	100.36 %	0.205			0.20%
Ag 328.068†	112.1	0.8556 µg/L	0.50188	0.8556 ppb	0.50188	58.66%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	56.6	39.407 µg/L	7.9561	39.407 ppb	7.9561	20.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.9	-1.7199 µg/L	6.52795	-1.7199 ppb	6.52795	379.54%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	131.1	5.3797 µg/L	0.38711	5.3797 ppb	0.38711	7.20%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	25.2	0.6210 µg/L	0.05511	0.6210 ppb	0.05511	8.87%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	209.6	0.1301 µg/L	0.04750	0.1301 ppb	0.04750	36.52%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	38.3	33.210 µg/L	8.5611	33.210 ppb	8.5611	25.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	24.4	0.6294 µg/L	0.13959	0.6294 ppb	0.13959	22.18%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	13.9	0.6452 µg/L	0.31536	0.6452 ppb	0.31536	48.88%

Cr	267.716†	50.2	1.0458 µg/L	0.09066	1.0458 ppb	0.09066	8.67%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	407.6	2.6988 µg/L	0.25653	2.6988 ppb	0.25653	9.51%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	6.4	50.706 µg/L	8.9248	50.706 ppb	8.9248	17.60%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	93.2	64.160 µg/L	39.1304	64.160 ppb	39.1304	60.99%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	7.1	62.537 µg/L	22.3479	62.537 ppb	22.3479	35.74%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	139.4	0.4576 µg/L	0.04049	0.4576 ppb	0.04049	8.85%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	9.4	0.9531 µg/L	0.22227	0.9531 ppb	0.22227	23.32%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	269.6	83.885 µg/L	17.5781	83.885 ppb	17.5781	20.96%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	19.6	1.0124 µg/L	0.39324	1.0124 ppb	0.39324	38.84%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-4.5	-9.2938 µg/L	7.89644	-9.2938 ppb	7.89644	84.96%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	32.5	8.1444 µg/L	1.15819	8.1444 ppb	1.15819	14.22%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-0.3	-1.3773 µg/L	11.71591	-1.3773 ppb	11.71591	850.64%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	2.7	2.5095 µg/L	4.67378	2.5095 ppb	4.67378	186.24%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-2.2	-3.1355 µg/L	9.97340	-3.1355 ppb	9.97340	318.08%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		78.1	15.949 µg/L	1.2556	15.949 ppb	1.2556	7.87%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	89.1	6.9607 µg/L	0.60808	6.9607 ppb	0.60808	8.74%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	6.7	2.9021 µg/L	1.37064	2.9021 ppb	1.37064	47.23%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	49.3	0.4868 µg/L	0.18672	0.4868 ppb	0.18672	38.36%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	225.5	0.5162 µg/L	0.02745	0.5162 ppb	0.02745	5.32%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-0.7	-0.8655 µg/L	1.99089	-0.8655 ppb	1.99089	230.02%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	19.5	1.6560 µg/L	5.48912	1.6560 ppb	5.48912	331.47%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	28.5	0.3052 µg/L	0.14927	0.3052 ppb	0.14927	48.91%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	88.0	2.0593 µg/L	0.15666	2.0593 ppb	0.15666	7.61%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

## =====

## Analysis Begun

Start Time: 2/12/2010 06:24:25

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021210.sif

Batch ID:

Results Data Set: 021210

Results Library: c:\pe\optima1\Results\Results.mdb

## =====

## Method Loaded

Method Name: Gen Eng fast\_new Si

Method Last Saved: 2/12/2010 05:25:43

IEC File: 011510.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

=====

Sequence No.: 1

Autosampler Location: 113

Sample ID: LR2

Date Collected: 2/12/2010 06:24:28

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

## -----

## Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57930.1	57930.1	101 %		06:25:02
1	Al 396.153Radial†	-7.7	16.6	11.594 µg/L	11.594 ppb	06:25:02
1	Ca 317.933Radial†	225.2	35.7	31.017 µg/L	31.017 ppb	06:25:23
1	Fe 238.204 Radial†	6.8	-7.0	53.982 µg/L	53.982 ppb	06:25:23

1	K 766.490 Radial†	183.5	14.9	10.260 µg/L	10.260 ppb	06:25:02
1	Mg 279.077 IEC†	12.6	1.7	14.831 µg/L	14.831 ppb	06:25:23
1	Na 589.592 Radial†	580.6	60.3	18.751 µg/L	18.751 ppb	06:25:02
1	Sr 421.552†	79.4	53.1	0.5241 µg/L	0.5241 ppb	06:25:02
1	Sc 361.383	1980769.0	1980769.0	99.772 %		06:26:28
1	Y 371.029	1357978.9	1357978.9	99.530 %		06:26:28
1	Ag 328.068†	-405.9	154.3	0.8593 µg/L	0.8593 ppb	06:26:33
1	As 188.979†	-105.7	-107.8	-198.12 µg/L	-198.12 ppb	06:26:54
1	B 249.677†	-446.4	-741.7	2.5138 µg/L	2.5138 ppb	06:26:33
1	Ba 233.527†	426957.6	427961.4	10556 µg/L	10556 ppb	06:26:28
1	Be 313.107†	-9050.2	-5470.5	-3.4014 µg/L	-3.4014 ppb	06:26:33
1	Cd 226.502†	-114.5	31.5	0.8291 µg/L	0.8291 ppb	06:26:54
1	Co 228.616†	110133.5	110394.6	5134.4 µg/L	5134.4 ppb	06:26:33
1	Cr 267.716†	991205.2	993523.8	20675 µg/L	20675 ppb	06:26:28
1	Cu 324.752†	1774.0	-666.1	-4.4070 µg/L	-4.4070 ppb	06:26:33
1	Mn 257.610†	1578536.3	1582416.1	5145.3 µg/L	5145.3 ppb	06:26:28
1	Mo 202.031†	-5.4	-0.6	-0.0618 µg/L	-0.0618 ppb	06:26:54
1	Ni 231.604†	417.1	115.5	-0.1506 µg/L	-0.1506 ppb	06:26:54
1	P 214.914†	14.1	-12.5	-24.684 µg/L	-24.684 ppb	06:26:54
1	Pb 220.353†	111.6	24.9	6.2101 µg/L	6.2101 ppb	06:26:54
1	S 181.975 Axial†	12.9	-4.6	-18.943 µg/L	-18.943 ppb	06:26:54
1	Sb 206.836†	455.6	433.0	166.77 µg/L	166.77 ppb	06:26:54
1	Se 196.026†	20.6	2.3	3.0615 µg/L	3.0615 ppb	06:26:54
1	SiO2†	-237.6	-1529.0	-312.30 µg/L	-312.30 ppb	06:26:33
1	Si 251.611†	283.6	-10.8	-0.8470 µg/L	-0.8470 ppb	06:26:54
1	Sn 189.927†	-7.7	-8.0	-3.4723 µg/L	-3.4723 ppb	06:26:54
1	Ti 334.940†	2449.2	2359.5	5.4476 µg/L	5.4476 ppb	06:26:33
1	Tl 190.801†	-0.3	23.4	34.963 µg/L	34.963 ppb	06:26:54
1	U 409.014†	472.2	562.4	47.994 µg/L	47.994 ppb	06:26:33
1	V 292.402†	-4652.4	-4617.4	1.0070 µg/L	1.0070 ppb	06:26:33
1	Zn 213.857†	442346.8	442895.8	10441 µg/L	10441 ppb	06:26:28
2	Sc RADIAL	57975.5	57975.5	101 %		06:25:28
2	Al 396.153Radial†	-20.3	4.2	2.9116 µg/L	2.9116 ppb	06:25:28
2	Ca 317.933Radial†	217.6	28.1	24.413 µg/L	24.413 ppb	06:25:49
2	Fe 238.204 Radial†	8.4	-5.4	64.691 µg/L	64.691 ppb	06:25:49
2	K 766.490 Radial†	191.2	22.4	15.411 µg/L	15.411 ppb	06:25:28
2	Mg 279.077 IEC†	12.0	1.0	9.0086 µg/L	9.0086 ppb	06:25:49
2	Na 589.592 Radial†	572.0	51.3	15.972 µg/L	15.972 ppb	06:25:28
2	Sr 421.552†	45.8	19.8	0.1953 µg/L	0.1953 ppb	06:25:28
2	Sc 361.383	1993435.5	1993435.5	100.41 %		06:27:01
2	Y 371.029	1367498.0	1367498.0	100.23 %		06:27:01
2	Ag 328.068†	-322.3	240.1	1.5137 µg/L	1.5137 ppb	06:27:07
2	As 188.979†	-100.8	-102.2	-187.91 µg/L	-187.91 ppb	06:27:27
2	B 249.677†	-443.1	-735.5	2.8149 µg/L	2.8149 ppb	06:27:07
2	Ba 233.527†	430122.0	428393.8	10567 µg/L	10567 ppb	06:27:01
2	Be 313.107†	-8970.5	-5333.6	-3.3164 µg/L	-3.3164 ppb	06:27:07
2	Cd 226.502†	-119.2	27.4	0.7225 µg/L	0.7225 ppb	06:27:27
2	Co 228.616†	109350.4	108913.3	5065.5 µg/L	5065.5 ppb	06:27:07
2	Cr 267.716†	999164.3	995137.7	20709 µg/L	20709 ppb	06:27:01
2	Cu 324.752†	1733.3	-717.9	-4.7474 µg/L	-4.7474 ppb	06:27:07
2	Mn 257.610†	1587399.9	1581190.3	5141.3 µg/L	5141.3 ppb	06:27:01
2	Mo 202.031†	-7.0	-2.1	-0.2180 µg/L	-0.2180 ppb	06:27:27
2	Ni 231.604†	410.4	106.2	-0.5494 µg/L	-0.5494 ppb	06:27:27
2	P 214.914†	16.7	-10.0	-19.541 µg/L	-19.541 ppb	06:27:27
2	Pb 220.353†	96.0	8.7	2.1337 µg/L	2.1337 ppb	06:27:27
2	S 181.975 Axial†	10.4	-7.1	-29.506 µg/L	-29.506 ppb	06:27:27
2	Sb 206.836†	450.1	424.6	158.62 µg/L	158.62 ppb	06:27:27
2	Se 196.026†	10.8	-7.6	-10.976 µg/L	-10.976 ppb	06:27:27
2	SiO2†	-221.0	-1511.0	-308.62 µg/L	-308.62 ppb	06:27:07
2	Si 251.611†	300.8	4.5	0.3502 µg/L	0.3502 ppb	06:27:27
2	Sn 189.927†	-10.1	-10.3	-4.4720 µg/L	-4.4720 ppb	06:27:27
2	Ti 334.940†	2481.1	2375.7	5.4854 µg/L	5.4854 ppb	06:27:07
2	Tl 190.801†	3.1	26.8	39.595 µg/L	39.595 ppb	06:27:27
2	U 409.014†	410.0	497.4	42.446 µg/L	42.446 ppb	06:27:07
2	V 292.402†	-4645.2	-4580.6	1.4509 µg/L	1.4509 ppb	06:27:07
2	Zn 213.857†	445685.7	443403.9	10453 µg/L	10453 ppb	06:27:01
3	Sc RADIAL	57316.5	57316.5	100 %		06:25:54
3	Al 396.153Radial†	10.2	34.4	23.978 µg/L	23.978 ppb	06:25:54
3	Ca 317.933Radial†	223.4	36.4	31.584 µg/L	31.584 ppb	06:26:15
3	Fe 238.204 Radial†	4.9	-8.8	26.747 µg/L	26.747 ppb	06:26:15
3	K 766.490 Radial†	179.9	13.3	9.1588 µg/L	9.1588 ppb	06:25:54

3	Mg 279.077 IEC†	10.6	-0.3	-2.4590 µg/L	-2.4590 ppb	06:26:15
3	Na 589.592 Radial†	539.8	25.6	7.9757 µg/L	7.9757 ppb	06:25:54
3	Sr 421.552†	34.2	8.7	0.0862 µg/L	0.0862 ppb	06:25:54
3	Sc 361.383	2007652.8	2007652.8	101.13 %		06:27:34
3	Y 371.029	1376558.9	1376558.9	100.89 %		06:27:34
3	Ag 328.068†	-379.1	186.2	1.1429 µg/L	1.1429 ppb	06:27:40
3	As 188.979†	-83.1	-84.0	-154.34 µg/L	-154.34 ppb	06:28:01
3	B 249.677†	-338.3	-628.8	4.6891 µg/L	4.6891 ppb	06:27:40
3	Ba 233.527†	409206.3	404677.4	9981.6 µg/L	9981.6 ppb	06:27:34
3	Be 313.107†	-8316.4	-4623.4	-2.8748 µg/L	-2.8748 ppb	06:27:40
3	Cd 226.502†	-103.5	43.8	1.1500 µg/L	1.1500 ppb	06:28:01
3	Co 228.616†	98806.5	97715.5	4544.7 µg/L	4544.7 ppb	06:27:40
3	Cr 267.716†	929098.6	918805.2	19120 µg/L	19120 ppb	06:27:34
3	Cu 324.752†	1896.9	-568.4	-3.7634 µg/L	-3.7634 ppb	06:27:40
3	Mn 257.610†	1499493.8	1483067.3	4822.2 µg/L	4822.2 ppb	06:27:34
3	Mo 202.031†	-1.5	3.3	0.3337 µg/L	0.3337 ppb	06:28:01
3	Ni 231.604†	395.3	88.4	-0.8493 µg/L	-0.8493 ppb	06:28:01
3	P 214.914†	21.9	-5.0	-9.5569 µg/L	-9.5569 ppb	06:28:01
3	Pb 220.353†	108.4	20.3	5.0518 µg/L	5.0518 ppb	06:28:01
3	S 181.975 Axial†	16.9	-0.7	-2.9144 µg/L	-2.9144 ppb	06:28:01
3	Sb 206.836†	367.7	339.9	98.225 µg/L	98.225 ppb	06:28:01
3	Se 196.026†	10.5	-7.9	-11.612 µg/L	-11.612 ppb	06:28:01
3	SiO2†	-58.8	-1349.1	-275.55 µg/L	-275.55 ppb	06:27:40
3	Si 251.611†	314.3	15.8	1.2325 µg/L	1.2325 ppb	06:28:01
3	Sn 189.927†	-4.5	-4.7	-2.0341 µg/L	-2.0341 ppb	06:28:01
3	Ti 334.940†	2157.3	2037.9	4.7066 µg/L	4.7066 ppb	06:27:40
3	Tl 190.801†	0.5	24.2	36.648 µg/L	36.648 ppb	06:28:01
3	U 409.014†	392.5	477.3	40.728 µg/L	40.728 ppb	06:27:40
3	V 292.402†	-4079.2	-3988.1	3.7792 µg/L	3.7792 ppb	06:27:40
3	Zn 213.857†	420775.2	415627.4	9798.2 µg/L	9798.2 ppb	06:27:34

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1993952.4	100.44 %		0.677			0.67%
Sc RADIAL	57740.7	101 %		0.6			0.64%
Y 371.029	1367345.3	100.22 %		0.681			0.68%
Ag 328.068†	193.5	1.1720 µg/L		0.32814	1.1720 ppb	0.32814	28.00%
Al 396.153Radial†	18.4	12.828 µg/L		10.5871	12.828 ppb	10.5871	82.53%
As 188.979†	-98.0	-180.12 µg/L		22.904	-180.12 ppb	22.904	12.72%
B 249.677†	-702.0	3.3393 µg/L		1.17865	3.3393 ppb	1.17865	35.30%
Ba 233.527†	420344.2	10368 µg/L		334.7	10368 ppb	334.7	3.23%
Be 313.107†	-5142.5	-3.1975 µg/L		0.28273	-3.1975 ppb	0.28273	8.84%
Ca 317.933Radial†	33.4	29.005 µg/L		3.9863	29.005 ppb	3.9863	13.74%
Cd 226.502†	34.2	0.9005 µg/L		0.22251	0.9005 ppb	0.22251	24.71%
Co 228.616†	105674.4	4914.8 µg/L		322.42	4914.8 ppb	322.42	6.56%
Cr 267.716†	969155.6	20168 µg/L		907.6	20168 ppb	907.6	4.50%
Cu 324.752†	-650.8	-4.3059 µg/L		0.49975	-4.3059 ppb	0.49975	11.61%
Fe 238.204 Radial†	-7.1	48.473 µg/L		19.5628	48.473 ppb	19.5628	40.36%
K 766.490 Radial†	16.9	11.610 µg/L		3.3373	11.610 ppb	3.3373	28.75%
Mg 279.077 IEC†	0.8	7.1269 µg/L		8.79738	7.1269 ppb	8.79738	123.44%
Mn 257.610†	1548891.2	5036.3 µg/L		185.37	5036.3 ppb	185.37	3.68%
Mo 202.031†	0.2	0.0180 µg/L		0.28441	0.0180 ppb	0.28441	>999.9%
Na 589.592 Radial†	45.7	14.233 µg/L		5.5945	14.233 ppb	5.5945	39.31%
Ni 231.604†	103.4	-0.5164 µg/L		0.35055	-0.5164 ppb	0.35055	67.88%
P 214.914†	-9.1	-17.928 µg/L		7.6917	-17.928 ppb	7.6917	42.90%
Pb 220.353†	18.0	4.4652 µg/L		2.10057	4.4652 ppb	2.10057	47.04%
S 181.975 Axial†	-4.1	-17.121 µg/L		13.3891	-17.121 ppb	13.3891	78.20%
Sb 206.836†	399.2	141.21 µg/L		37.445	141.21 ppb	37.445	26.52%
Se 196.026†	-4.4	-6.5088 µg/L		8.29430	-6.5088 ppb	8.29430	127.43%
SiO2†	-1463.1	-298.83 µg/L		20.238	-298.83 ppb	20.238	6.77%
Si 251.611†	3.1	0.2452 µg/L		1.04370	0.2452 ppb	1.04370	425.58%
Sn 189.927†	-7.7	-3.3261 µg/L		1.22554	-3.3261 ppb	1.22554	36.85%
Sr 421.552†	27.2	0.2685 µg/L		0.22792	0.2685 ppb	0.22792	84.88%
Ti 334.940†	2257.7	5.2132 µg/L		0.43918	5.2132 ppb	0.43918	8.42%
Tl 190.801†	24.8	37.069 µg/L		2.3443	37.069 ppb	2.3443	6.32%
U 409.014†	512.4	43.723 µg/L		3.7972	43.723 ppb	3.7972	8.68%
V 292.402†	-4395.4	2.0790 µg/L		1.48904	2.0790 ppb	1.48904	71.62%
Zn 213.857†	433975.7	10231 µg/L		374.6	10231 ppb	374.6	3.66%

Sequence No.: 2

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/12/2010 06:28:10

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57356.8	57356.8	100 %		06:28:46
1	Al 396.153Radial†	7041.6	7055.8	4904.4 µg/L	4904.4 ppb	06:28:46
1	Ca 317.933Radial†	5830.3	5635.1	4891.6 µg/L	4891.6 ppb	06:29:06
1	Fe 238.204 Radial†	650.1	635.4	5030.6 µg/L	5030.6 ppb	06:29:06
1	K 766.490 Radial†	7476.0	7298.7	5023.8 µg/L	5023.8 ppb	06:28:46
1	Mg 279.077 IEC†	583.7	572.1	5069.2 µg/L	5069.2 ppb	06:29:06
1	Na 589.592 Radial†	31897.9	31338.5	9751.4 µg/L	9751.4 ppb	06:28:46
1	Sr 421.552†	50327.2	50229.7	495.67 µg/L	495.67 ppb	06:28:46
1	Sc 361.383	1995159.3	1995159.3	100.50 %		06:30:09
1	Y 371.029	1365233.4	1365233.4	100.06 %		06:30:09
1	Ag 328.068†	64715.4	64956.9	496.62 µg/L	496.62 ppb	06:30:15
1	As 188.979†	290.4	287.1	526.75 µg/L	526.75 ppb	06:30:35
1	B 249.677†	12439.5	12083.8	496.33 µg/L	496.33 ppb	06:30:15
1	Ba 233.527†	20547.5	20472.0	505.86 µg/L	505.86 ppb	06:30:15
1	Be 313.107†	806998.5	806613.1	501.04 µg/L	501.04 ppb	06:30:09
1	Cd 226.502†	19511.7	19561.5	507.96 µg/L	507.96 ppb	06:30:15
1	Co 228.616†	10990.0	10944.6	508.45 µg/L	508.45 ppb	06:30:15
1	Cr 267.716†	24533.2	24460.6	509.34 µg/L	509.34 ppb	06:30:15
1	Cu 324.752†	78614.7	75782.2	501.20 µg/L	501.20 ppb	06:30:15
1	Mn 257.610†	156211.1	155704.3	506.74 µg/L	506.74 ppb	06:30:09
1	Mo 202.031†	5127.2	5106.8	515.61 µg/L	515.61 ppb	06:30:35
1	Ni 231.604†	10224.3	9871.3	509.13 µg/L	509.13 ppb	06:30:15
1	P 214.914†	1316.9	1283.8	2531.2 µg/L	2531.2 ppb	06:30:35
1	Pb 220.353†	2158.2	2060.6	516.46 µg/L	516.46 ppb	06:30:35
1	S 181.975 Axial†	262.2	243.5	1012.6 µg/L	1012.6 ppb	06:30:35
1	Sb 206.836†	578.3	551.7	513.09 µg/L	513.09 ppb	06:30:35
1	Se 196.026†	374.6	354.4	516.86 µg/L	516.86 ppb	06:30:35
1	SiO2†	27567.4	26140.3	5339.1 µg/L	5339.1 ppb	06:30:15
1	Si 251.611†	32431.5	31976.3	2499.0 µg/L	2499.0 ppb	06:30:15
1	Sn 189.927†	1203.9	1197.7	518.39 µg/L	518.39 ppb	06:30:35
1	Ti 334.940†	216363.4	215199.5	496.60 µg/L	496.60 ppb	06:30:09
1	Tl 190.801†	357.6	379.5	507.10 µg/L	507.10 ppb	06:30:35
1	U 409.014†	5875.1	5935.2	505.41 µg/L	505.41 ppb	06:30:15
1	V 292.402†	49866.3	49665.7	508.28 µg/L	508.28 ppb	06:30:15
1	Zn 213.857†	22230.8	21657.0	506.97 µg/L	506.97 ppb	06:30:15
2	Sc RADIAL	57159.1	57159.1	99.8 %		06:29:11
2	Al 396.153Radial†	7106.7	7145.3	4966.9 µg/L	4966.9 ppb	06:29:11
2	Ca 317.933Radial†	5880.8	5705.8	4953.0 µg/L	4953.0 ppb	06:29:32
2	Fe 238.204 Radial†	653.5	641.1	5075.5 µg/L	5075.5 ppb	06:29:32
2	K 766.490 Radial†	7497.5	7346.1	5056.5 µg/L	5056.5 ppb	06:29:11
2	Mg 279.077 IEC†	591.8	582.2	5158.7 µg/L	5158.7 ppb	06:29:32
2	Na 589.592 Radial†	32029.4	31580.4	9826.7 µg/L	9826.7 ppb	06:29:11
2	Sr 421.552†	50615.7	50692.6	500.24 µg/L	500.24 ppb	06:29:11
2	Sc 361.383	1990334.0	1990334.0	100.25 %		06:30:43
2	Y 371.029	1362565.4	1362565.4	99.866 %		06:30:43
2	Ag 328.068†	64411.7	64810.0	495.49 µg/L	495.49 ppb	06:30:48
2	As 188.979†	279.5	276.9	508.07 µg/L	508.07 ppb	06:31:09
2	B 249.677†	12384.8	12059.3	495.30 µg/L	495.30 ppb	06:30:48
2	Ba 233.527†	20353.0	20327.6	502.30 µg/L	502.30 ppb	06:30:48
2	Be 313.107†	799020.5	800602.1	497.30 µg/L	497.30 ppb	06:30:43
2	Cd 226.502†	19319.2	19416.6	504.19 µg/L	504.19 ppb	06:30:48
2	Co 228.616†	10911.4	10892.7	506.04 µg/L	506.04 ppb	06:30:48
2	Cr 267.716†	24387.2	24374.2	507.54 µg/L	507.54 ppb	06:30:48
2	Cu 324.752†	78198.7	75557.0	499.72 µg/L	499.72 ppb	06:30:48
2	Mn 257.610†	154582.8	154456.9	502.69 µg/L	502.69 ppb	06:30:43
2	Mo 202.031†	5033.5	5025.7	507.43 µg/L	507.43 ppb	06:31:09
2	Ni 231.604†	10144.7	9816.6	506.31 µg/L	506.31 ppb	06:30:48
2	P 214.914†	1287.1	1257.2	2477.9 µg/L	2477.9 ppb	06:31:09
2	Pb 220.353†	2113.4	2021.2	506.56 µg/L	506.56 ppb	06:31:09



2	S 181.975 Axial†	259.6	241.5	1004.5 µg/L	1004.5 ppb	06:31:09
2	Sb 206.836†	564.5	539.4	501.53 µg/L	501.53 ppb	06:31:09
2	Se 196.026†	368.1	348.9	508.91 µg/L	508.91 ppb	06:31:09
2	SiO2†	27483.1	26122.7	5335.5 µg/L	5335.5 ppb	06:30:48
2	Si 251.611†	32329.7	31953.0	2497.1 µg/L	2497.1 ppb	06:30:48
2	Sn 189.927†	1188.5	1185.2	512.99 µg/L	512.99 ppb	06:31:09
2	Ti 334.940†	214019.2	213383.1	492.40 µg/L	492.40 ppb	06:30:43
2	Tl 190.801†	356.2	379.1	506.44 µg/L	506.44 ppb	06:31:09
2	U 409.014†	5821.6	5896.0	502.06 µg/L	502.06 ppb	06:30:48
2	V 292.402†	49482.4	49403.0	505.56 µg/L	505.56 ppb	06:30:48
2	Zn 213.857†	22020.4	21500.8	503.30 µg/L	503.30 ppb	06:30:48
3	Sc RADIAL	57501.3	57501.3	100 %		06:29:37
3	Al 396.153Radial†	7095.0	7091.3	4930.7 µg/L	4930.7 ppb	06:29:37
3	Ca 317.933Radial†	5849.1	5639.1	4895.1 µg/L	4895.1 ppb	06:29:58
3	Fe 238.204 Radial†	651.2	635.0	5026.2 µg/L	5026.2 ppb	06:29:58
3	K 766.490 Radial†	7471.7	7275.7	5008.0 µg/L	5008.0 ppb	06:29:37
3	Mg 279.077 IEC†	588.5	575.4	5097.3 µg/L	5097.3 ppb	06:29:58
3	Na 589.592 Radial†	32047.2	31407.1	9772.8 µg/L	9772.8 ppb	06:29:37
3	Sr 421.552†	50638.4	50413.4	497.48 µg/L	497.48 ppb	06:29:37
3	Sc 361.383	1977457.7	1977457.7	99.605 %		06:31:16
3	Y 371.029	1354865.0	1354865.0	99.301 %		06:31:16
3	Ag 328.068†	61531.6	62336.8	476.49 µg/L	476.49 ppb	06:31:22
3	As 188.979†	246.6	245.7	450.88 µg/L	450.88 ppb	06:31:42
3	B 249.677†	11794.5	11547.1	474.14 µg/L	474.14 ppb	06:31:22
3	Ba 233.527†	19057.9	19159.6	473.42 µg/L	473.42 ppb	06:31:22
3	Be 313.107†	763020.6	769649.0	478.08 µg/L	478.08 ppb	06:31:16
3	Cd 226.502†	18002.2	18219.9	473.08 µg/L	473.08 ppb	06:31:22
3	Co 228.616†	10103.6	10152.5	471.60 µg/L	471.60 ppb	06:31:22
3	Cr 267.716†	22107.0	22243.3	463.18 µg/L	463.18 ppb	06:31:22
3	Cu 324.752†	72899.2	70744.4	467.93 µg/L	467.93 ppb	06:31:22
3	Mn 257.610†	148309.2	149162.4	485.47 µg/L	485.47 ppb	06:31:16
3	Mo 202.031†	4331.1	4353.1	439.55 µg/L	439.55 ppb	06:31:42
3	Ni 231.604†	9407.6	9142.4	471.54 µg/L	471.54 ppb	06:31:22
3	P 214.914†	1126.0	1103.8	2171.9 µg/L	2171.9 ppb	06:31:42
3	Pb 220.353†	1902.1	1822.8	456.75 µg/L	456.75 ppb	06:31:42
3	S 181.975 Axial†	226.9	210.3	874.77 µg/L	874.77 ppb	06:31:42
3	Sb 206.836†	500.5	478.8	444.83 µg/L	444.83 ppb	06:31:42
3	Se 196.026†	333.9	316.9	462.93 µg/L	462.93 ppb	06:31:42
3	SiO2†	25924.2	24736.1	5052.3 µg/L	5052.3 ppb	06:31:22
3	Si 251.611†	30334.3	30159.6	2357.0 µg/L	2357.0 ppb	06:31:22
3	Sn 189.927†	1000.5	1004.1	434.64 µg/L	434.64 ppb	06:31:42
3	Ti 334.940†	203783.5	204496.9	471.89 µg/L	471.89 ppb	06:31:16
3	Tl 190.801†	326.9	352.0	470.47 µg/L	470.47 ppb	06:31:42
3	U 409.014†	5398.4	5509.0	469.04 µg/L	469.04 ppb	06:31:22
3	V 292.402†	45740.5	45967.7	470.17 µg/L	470.17 ppb	06:31:22
3	Zn 213.857†	20527.5	20144.9	471.54 µg/L	471.54 ppb	06:31:22

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1987650.4	100.12 %	0.461			0.46%
Sc RADIAL	57339.1	100 %	0.3			0.30%
Y 371.029	1360888.0	99.743 %	0.3946			0.40%
Ag 328.068†	64034.6	489.53 µg/L	11.311	489.53 ppb	11.311	2.31%
QC value within limits for Ag 328.068 Recovery = 97.91%						
Al 396.153Radial†	7097.5	4934.0 µg/L	31.39	4934.0 ppb	31.39	0.64%
QC value within limits for Al 396.153Radial Recovery = 98.68%						
As 188.979†	269.9	495.23 µg/L	39.530	495.23 ppb	39.530	7.98%
QC value within limits for As 188.979 Recovery = 99.05%						
B 249.677†	11896.7	488.59 µg/L	12.527	488.59 ppb	12.527	2.56%
QC value within limits for B 249.677 Recovery = 97.72%						
Ba 233.527†	19986.4	493.86 µg/L	17.789	493.86 ppb	17.789	3.60%
QC value within limits for Ba 233.527 Recovery = 98.77%						
Be 313.107†	792288.1	492.14 µg/L	12.320	492.14 ppb	12.320	2.50%
QC value within limits for Be 313.107 Recovery = 98.43%						
Ca 317.933Radial†	5660.0	4913.2 µg/L	34.48	4913.2 ppb	34.48	0.70%
QC value within limits for Ca 317.933Radial Recovery = 98.26%						
Cd 226.502†	19066.0	495.08 µg/L	19.142	495.08 ppb	19.142	3.87%
QC value within limits for Cd 226.502 Recovery = 99.02%						
Co 228.616†	10663.3	495.37 µg/L	20.617	495.37 ppb	20.617	4.16%

QC value within limits for Co 228.616	Recovery = 99.07%			
Cr 267.716†	23692.7	493.35 µg/L	26.150	493.35 ppb 26.150 5.30%
QC value within limits for Cr 267.716	Recovery = 98.67%			
Cu 324.752†	74027.9	489.62 µg/L	18.797	489.62 ppb 18.797 3.84%
QC value within limits for Cu 324.752	Recovery = 97.92%			
Fe 238.204 Radial†	637.2	5044.1 µg/L	27.27	5044.1 ppb 27.27 0.54%
QC value within limits for Fe 238.204 Radial	Recovery = 100.88%			
K 766.490 Radial†	7306.9	5029.4 µg/L	24.71	5029.4 ppb 24.71 0.49%
QC value within limits for K 766.490 Radial	Recovery = 100.59%			
Mg 279.077 IEC†	576.5	5108.4 µg/L	45.77	5108.4 ppb 45.77 0.90%
QC value within limits for Mg 279.077 IEC	Recovery = 102.17%			
Mn 257.610†	153107.8	498.30 µg/L	11.295	498.30 ppb 11.295 2.27%
QC value within limits for Mn 257.610	Recovery = 99.66%			
Mo 202.031†	4828.5	487.53 µg/L	41.754	487.53 ppb 41.754 8.56%
QC value within limits for Mo 202.031	Recovery = 97.51%			
Na 589.592 Radial†	31442.0	9783.6 µg/L	38.79	9783.6 ppb 38.79 0.40%
QC value within limits for Na 589.592 Radial	Recovery = 97.84%			
Ni 231.604†	9610.1	495.66 µg/L	20.937	495.66 ppb 20.937 4.22%
QC value within limits for Ni 231.604	Recovery = 99.13%			
P 214.914†	1215.0	2393.7 µg/L	193.89	2393.7 ppb 193.89 8.10%
QC value within limits for P 214.914	Recovery = 95.75%			
Pb 220.353†	1968.2	493.26 µg/L	32.000	493.26 ppb 32.000 6.49%
QC value within limits for Pb 220.353	Recovery = 98.65%			
S 181.975 Axial†	231.8	963.94 µg/L	77.336	963.94 ppb 77.336 8.02%
QC value within limits for S 181.975 Axial	Recovery = 96.39%			
Sb 206.836†	523.3	486.48 µg/L	36.535	486.48 ppb 36.535 7.51%
QC value within limits for Sb 206.836	Recovery = 97.30%			
Se 196.026†	340.1	496.23 µg/L	29.116	496.23 ppb 29.116 5.87%
QC value within limits for Se 196.026	Recovery = 99.25%			
SiO2†	25666.4	5242.3 µg/L	164.56	5242.3 ppb 164.56 3.14%
QC value within limits for SiO2	Recovery = 98.03%			
Si 251.611†	31362.9	2451.0 µg/L	81.45	2451.0 ppb 81.45 3.32%
QC value within limits for Si 251.611	Recovery = 98.04%			
Sn 189.927†	1129.0	488.67 µg/L	46.874	488.67 ppb 46.874 9.59%
QC value within limits for Sn 189.927	Recovery = 97.73%			
Sr 421.552†	50445.2	497.80 µg/L	2.300	497.80 ppb 2.300 0.46%
QC value within limits for Sr 421.552	Recovery = 99.56%			
Ti 334.940†	211026.5	486.96 µg/L	13.225	486.96 ppb 13.225 2.72%
QC value within limits for Ti 334.940	Recovery = 97.39%			
Tl 190.801†	370.2	494.67 µg/L	20.957	494.67 ppb 20.957 4.24%
QC value within limits for Tl 190.801	Recovery = 98.93%			
U 409.014†	5780.1	492.17 µg/L	20.098	492.17 ppb 20.098 4.08%
QC value within limits for U 409.014	Recovery = 98.43%			
V 292.402†	48345.5	494.67 µg/L	21.261	494.67 ppb 21.261 4.30%
QC value within limits for V 292.402	Recovery = 98.93%			
Zn 213.857†	21100.9	493.94 µg/L	19.481	493.94 ppb 19.481 3.94%
QC value within limits for Zn 213.857	Recovery = 98.79%			

All analyte(s) passed QC.

Sequence No.: 3

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/12/2010 06:31:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56611.2	56611.2	98.8 %		06:32:24
1	Al 396.153Radial†	12.1	36.5	25.407 µg/L	25.407 ppb	06:32:24
1	Ca 317.933Radial†	194.8	10.2	8.8812 µg/L	8.8812 ppb	06:32:44
1	Fe 238.204 Radial†	16.6	3.1	24.646 µg/L	24.646 ppb	06:32:44
1	K 766.490 Radial†	230.1	66.3	45.648 µg/L	45.648 ppb	06:32:24
1	Mg 279.077 IEC†	10.8	0.1	0.5186 µg/L	0.5186 ppb	06:32:44
1	Na 589.592 Radial†	592.3	85.5	26.592 µg/L	26.592 ppb	06:32:24
1	Sr 421.552†	48.6	23.7	0.2341 µg/L	0.2341 ppb	06:32:24
1	Sc 361.383	1988683.7	1988683.7	100.17 %		06:33:46
1	Y 371.029	1365870.7	1365870.7	100.11 %		06:33:46
1	Ag 328.068†	-449.4	112.4	0.8538 µg/L	0.8538 ppb	06:33:52
1	As 188.979†	-1.9	-3.7	-6.8730 µg/L	-6.8730 ppb	06:34:12
1	B 249.677†	332.0	37.2	1.5213 µg/L	1.5213 ppb	06:34:12
1	Ba 233.527†	4.5	30.5	0.7531 µg/L	0.7531 ppb	06:34:12
1	Be 313.107†	-3439.7	166.5	0.1034 µg/L	0.1034 ppb	06:33:52
1	Cd 226.502†	-155.6	-9.2	-0.2416 µg/L	-0.2416 ppb	06:34:12
1	Co 228.616†	2.9	11.8	0.5476 µg/L	0.5476 ppb	06:34:12
1	Cr 267.716†	2.2	50.8	1.0569 µg/L	1.0569 ppb	06:33:52
1	Cu 324.752†	2600.1	151.5	1.0040 µg/L	1.0040 ppb	06:33:52
1	Mn 257.610†	-139.0	125.9	0.4127 µg/L	0.4127 ppb	06:34:12
1	Mo 202.031†	4.1	8.9	0.9023 µg/L	0.9023 ppb	06:34:12
1	Ni 231.604†	305.6	2.6	0.1317 µg/L	0.1317 ppb	06:34:12
1	P 214.914†	20.1	-6.6	-13.289 µg/L	-13.289 ppb	06:34:12
1	Pb 220.353†	90.7	3.6	0.9124 µg/L	0.9124 ppb	06:34:12
1	S 181.975 Axial†	17.1	-0.3	-1.4205 µg/L	-1.4205 ppb	06:34:12
1	Sb 206.836†	25.1	1.4	1.2967 µg/L	1.2967 ppb	06:34:12
1	Se 196.026†	13.1	-5.3	-7.5716 µg/L	-7.5716 ppb	06:34:12
1	SiO2†	1322.0	28.8	5.8791 µg/L	5.8791 ppb	06:33:52
1	Si 251.611†	333.0	37.3	2.9167 µg/L	2.9167 ppb	06:34:12
1	Sn 189.927†	3.4	3.1	1.3382 µg/L	1.3382 ppb	06:34:12
1	Ti 334.940†	193.9	98.2	0.2270 µg/L	0.2270 ppb	06:33:52
1	Tl 190.801†	-22.0	1.7	2.3166 µg/L	2.3166 ppb	06:34:12
1	U 409.014†	-71.7	17.6	1.4957 µg/L	1.4957 ppb	06:33:52
1	V 292.402†	-62.8	-17.0	-0.1577 µg/L	-0.1577 ppb	06:33:52
1	Zn 213.857†	565.3	100.3	2.3615 µg/L	2.3615 ppb	06:34:12
2	Sc RADIAL	57447.9	57447.9	100 %		06:32:50
2	Al 396.153Radial†	-14.6	9.6	6.6898 µg/L	6.6898 ppb	06:32:50
2	Ca 317.933Radial†	200.5	13.1	11.336 µg/L	11.336 ppb	06:33:10
2	Fe 238.204 Radial†	15.5	1.8	13.928 µg/L	13.928 ppb	06:33:10
2	K 766.490 Radial†	231.0	63.8	43.885 µg/L	43.885 ppb	06:32:50
2	Mg 279.077 IEC†	10.8	-0.0	-0.2955 µg/L	-0.2955 ppb	06:33:10
2	Na 589.592 Radial†	548.4	32.9	10.252 µg/L	10.252 ppb	06:32:50
2	Sr 421.552†	47.0	21.5	0.2120 µg/L	0.2120 ppb	06:32:50
2	Sc 361.383	1996321.4	1996321.4	100.55 %		06:34:18
2	Y 371.029	1371694.8	1371694.8	100.53 %		06:34:18
2	Ag 328.068†	-463.7	99.9	0.7594 µg/L	0.7594 ppb	06:34:24
2	As 188.979†	2.9	1.1	1.9486 µg/L	1.9486 ppb	06:34:44
2	B 249.677†	332.0	35.9	1.4756 µg/L	1.4756 ppb	06:34:44
2	Ba 233.527†	55.1	80.9	1.9948 µg/L	1.9948 ppb	06:34:44
2	Be 313.107†	-3330.2	288.5	0.1792 µg/L	0.1792 ppb	06:34:24
2	Cd 226.502†	-133.1	13.8	0.3577 µg/L	0.3577 ppb	06:34:44
2	Co 228.616†	20.2	29.0	1.3473 µg/L	1.3473 ppb	06:34:44
2	Cr 267.716†	42.0	90.4	1.8806 µg/L	1.8806 ppb	06:34:24
2	Cu 324.752†	2637.7	178.9	1.1838 µg/L	1.1838 ppb	06:34:24
2	Mn 257.610†	76.7	341.0	1.1105 µg/L	1.1105 ppb	06:34:44
2	Mo 202.031†	0.9	5.8	0.5840 µg/L	0.5840 ppb	06:34:44
2	Ni 231.604†	316.4	12.1	0.6258 µg/L	0.6258 ppb	06:34:44
2	P 214.914†	35.9	9.1	18.139 µg/L	18.139 ppb	06:34:44
2	Pb 220.353†	94.4	6.9	1.7347 µg/L	1.7347 ppb	06:34:44

2	S 181.975 Axial†	13.2	-4.3	-17.978 µg/L	-17.978 ppb	06:34:44
2	Sb 206.836†	20.5	-3.3	-3.0259 µg/L	-3.0259 ppb	06:34:44
2	Se 196.026†	13.9	-4.5	-6.4707 µg/L	-6.4707 ppb	06:34:44
2	SiO2†	1320.1	21.8	4.4621 µg/L	4.4621 ppb	06:34:24
2	Si 251.611†	341.3	44.4	3.4671 µg/L	3.4671 ppb	06:34:44
2	Sn 189.927†	2.9	2.6	1.1331 µg/L	1.1331 ppb	06:34:44
2	Ti 334.940†	207.5	111.0	0.2566 µg/L	0.2566 ppb	06:34:24
2	Tl 190.801†	-26.5	-2.6	-3.4723 µg/L	-3.4723 ppb	06:34:44
2	U 409.014†	-89.0	0.6	0.0457 µg/L	0.0457 ppb	06:34:24
2	V 292.402†	-39.8	6.1	0.0725 µg/L	0.0725 ppb	06:34:24
2	Zn 213.857†	618.0	150.6	3.5445 µg/L	3.5445 ppb	06:34:44
3	Sc RADIAL	57276.6	57276.6	100 %		06:33:16
3	Al 396.153Radial†	15.2	39.4	27.448 µg/L	27.448 ppb	06:33:16
3	Ca 317.933Radial†	197.5	10.6	9.2005 µg/L	9.2005 ppb	06:33:36
3	Fe 238.204 Radial†	16.6	2.9	22.616 µg/L	22.616 ppb	06:33:36
3	K 766.490 Radial†	245.7	79.1	54.477 µg/L	54.477 ppb	06:33:16
3	Mg 279.077 IEC†	17.5	6.6	58.659 µg/L	58.659 ppb	06:33:36
3	Na 589.592 Radial†	574.8	61.0	18.992 µg/L	18.992 ppb	06:33:16
3	Sr 421.552†	62.6	37.2	0.3668 µg/L	0.3668 ppb	06:33:16
3	Sc 361.383	2009280.7	2009280.7	101.21 %		06:34:50
3	Y 371.029	1380056.2	1380056.2	101.15 %		06:34:50
3	Ag 328.068†	-487.3	79.6	0.6037 µg/L	0.6037 ppb	06:34:56
3	As 188.979†	-2.2	-4.0	-7.3741 µg/L	-7.3741 ppb	06:35:16
3	B 249.677†	334.0	35.8	1.4669 µg/L	1.4669 ppb	06:35:16
3	Ba 233.527†	17.7	43.6	1.0741 µg/L	1.0741 ppb	06:35:16
3	Be 313.107†	-3350.9	289.4	0.1798 µg/L	0.1798 ppb	06:34:56
3	Cd 226.502†	-137.0	10.9	0.2797 µg/L	0.2797 ppb	06:35:16
3	Co 228.616†	16.1	24.8	1.1545 µg/L	1.1545 ppb	06:35:16
3	Cr 267.716†	21.5	69.8	1.4527 µg/L	1.4527 ppb	06:34:56
3	Cu 324.752†	2642.4	166.7	1.1038 µg/L	1.1038 ppb	06:34:56
3	Mn 257.610†	-126.3	139.9	0.4555 µg/L	0.4555 ppb	06:35:16
3	Mo 202.031†	-2.2	2.7	0.2753 µg/L	0.2753 ppb	06:35:16
3	Ni 231.604†	315.0	8.7	0.4501 µg/L	0.4501 ppb	06:35:16
3	P 214.914†	28.5	1.6	3.0805 µg/L	3.0805 ppb	06:35:16
3	Pb 220.353†	95.8	7.8	1.9438 µg/L	1.9438 ppb	06:35:16
3	S 181.975 Axial†	16.7	-0.9	-3.7967 µg/L	-3.7967 ppb	06:35:16
3	Sb 206.836†	22.4	-1.5	-1.4262 µg/L	-1.4262 ppb	06:35:16
3	Se 196.026†	14.4	-4.1	-5.9118 µg/L	-5.9118 ppb	06:35:16
3	SiO2†	1280.5	-25.7	-5.2429 µg/L	-5.2429 ppb	06:34:56
3	Si 251.611†	328.9	29.9	2.3398 µg/L	2.3398 ppb	06:35:16
3	Sn 189.927†	2.2	1.8	0.7996 µg/L	0.7996 ppb	06:35:16
3	Ti 334.940†	164.2	66.9	0.1499 µg/L	0.1499 ppb	06:34:56
3	Tl 190.801†	-21.7	2.3	3.0917 µg/L	3.0917 ppb	06:35:16
3	U 409.014†	-54.2	35.6	3.0312 µg/L	3.0312 ppb	06:34:56
3	V 292.402†	-69.1	-22.6	-0.2169 µg/L	-0.2169 ppb	06:34:56
3	Zn 213.857†	562.6	91.8	2.1564 µg/L	2.1564 ppb	06:35:16

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1998095.2	100.64 %	0.524			0.52%
Sc RADIAL	57111.9	99.7 %	0.77			0.77%
Y 371.029	1372540.6	100.60 %	0.523			0.52%
Ag 328.068†	97.3	0.7390 µg/L	0.12629	0.7390 ppb	0.12629	17.09%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	28.5	19.848 µg/L	11.4411	19.848 ppb	11.4411	57.64%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.2	-4.0995 µg/L	5.24377	-4.0995 ppb	5.24377	127.91%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	36.3	1.4879 µg/L	0.02919	1.4879 ppb	0.02919	1.96%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	51.7	1.2740 µg/L	0.64455	1.2740 ppb	0.64455	50.59%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	248.2	0.1541 µg/L	0.04394	0.1541 ppb	0.04394	28.51%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	11.3	9.8059 µg/L	1.33473	9.8059 ppb	1.33473	13.61%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	5.2	0.1320 µg/L	0.32583	0.1320 ppb	0.32583	246.89%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	21.9	1.0164 µg/L	0.41735	1.0164 ppb	0.41735	41.06%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated				
	70.3	1.4634 µg/L	0.41196	1.4634 ppb	0.41196	28.15%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated				
	165.7	1.0972 µg/L	0.09007	1.0972 ppb	0.09007	8.21%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated				
	2.6	20.397 µg/L	5.6933	20.397 ppb	5.6933	27.91%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated				
	69.7	48.003 µg/L	5.6754	48.003 ppb	5.6754	11.82%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated				
	2.2	19.627 µg/L	33.8046	19.627 ppb	33.8046	172.23%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated				
	202.3	0.6596 µg/L	0.39112	0.6596 ppb	0.39112	59.30%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated				
	5.8	0.5872 µg/L	0.31351	0.5872 ppb	0.31351	53.39%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated				
	59.8	18.612 µg/L	8.1765	18.612 ppb	8.1765	43.93%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated				
	7.8	0.4025 µg/L	0.25048	0.4025 ppb	0.25048	62.22%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated				
	1.4	2.6434 µg/L	15.71844	2.6434 ppb	15.71844	594.62%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated				
	6.1	1.5303 µg/L	0.54527	1.5303 ppb	0.54527	35.63%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated				
	-1.9	-7.7316 µg/L	8.95246	-7.7316 ppb	8.95246	115.79%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated				
	-1.1	-1.0518 µg/L	2.18546	-1.0518 ppb	2.18546	207.79%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated				
	-4.7	-6.6514 µg/L	0.84450	-6.6514 ppb	0.84450	12.70%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated				
	8.3	1.6994 µg/L	6.05385	1.6994 ppb	6.05385	356.23%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated				
	37.2	2.9079 µg/L	0.56367	2.9079 ppb	0.56367	19.38%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated				
	2.5	1.0903 µg/L	0.27181	1.0903 ppb	0.27181	24.93%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated				
	27.5	0.2710 µg/L	0.08372	0.2710 ppb	0.08372	30.90%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated				
	92.0	0.2112 µg/L	0.05509	0.2112 ppb	0.05509	26.09%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated				
	0.5	0.6454 µg/L	3.58695	0.6454 ppb	3.58695	555.81%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated				
	17.9	1.5242 µg/L	1.49298	1.5242 ppb	1.49298	97.95%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated				
	-11.1	-0.1007 µg/L	0.15287	-0.1007 ppb	0.15287	151.79%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated				
	114.2	2.6875 µg/L	0.74927	2.6875 ppb	0.74927	27.88%
	QC value within limits for Zn 213.857	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/12/2010 07:10:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56596.2	56596.2	98.8 %		07:11:27
1	Al 396.153Radial†	7160.3	7270.3	5053.9 µg/L	5053.9 ppb	07:11:27
1	Ca 317.933Radial†	5813.8	5696.6	4945.1 µg/L	4945.1 ppb	07:11:47
1	Fe 238.204 Radial†	653.0	647.1	5123.1 µg/L	5123.1 ppb	07:11:47
1	K 766.490 Radial†	7517.2	7440.8	5121.6 µg/L	5121.6 ppb	07:11:27
1	Mg 279.077 IEC†	590.6	586.8	5199.8 µg/L	5199.8 ppb	07:11:47
1	Na 589.592 Radial†	32213.5	32085.9	9984.0 µg/L	9984.0 ppb	07:11:27
1	Sr 421.552†	50336.2	50914.2	502.43 µg/L	502.43 ppb	07:11:27
1	Sc 361.383	1982491.2	1982491.2	99.858 %		07:12:50
1	Y 371.029	1358368.3	1358368.3	99.558 %		07:12:50
1	Ag 328.068†	64457.1	65109.7	497.77 µg/L	497.77 ppb	07:12:56
1	As 188.979†	280.2	278.8	511.46 µg/L	511.46 ppb	07:13:17
1	B 249.677†	12250.9	11974.1	491.76 µg/L	491.76 ppb	07:12:56
1	Ba 233.527†	20243.9	20298.6	501.58 µg/L	501.58 ppb	07:12:56
1	Be 313.107†	797474.8	802207.2	498.30 µg/L	498.30 ppb	07:12:50
1	Cd 226.502†	19183.6	19357.0	502.64 µg/L	502.64 ppb	07:12:56
1	Co 228.616†	10779.1	10803.2	501.88 µg/L	501.88 ppb	07:12:56
1	Cr 267.716†	24167.6	24250.5	504.97 µg/L	504.97 ppb	07:12:56
1	Cu 324.752†	77996.6	75663.2	500.43 µg/L	500.43 ppb	07:12:56
1	Mn 257.610†	154468.4	154952.3	504.31 µg/L	504.31 ppb	07:12:50
1	Mo 202.031†	5072.9	5084.9	513.42 µg/L	513.42 ppb	07:13:17
1	Ni 231.604†	10108.0	9819.9	506.48 µg/L	506.48 ppb	07:12:56
1	P 214.914†	1299.1	1274.3	2512.1 µg/L	2512.1 ppb	07:13:17
1	Pb 220.353†	2129.2	2045.4	512.64 µg/L	512.64 ppb	07:13:17
1	S 181.975 Axial†	253.9	236.8	984.93 µg/L	984.93 ppb	07:13:17
1	Sb 206.836†	561.9	539.0	501.35 µg/L	501.35 ppb	07:13:17
1	Se 196.026†	377.3	359.5	524.29 µg/L	524.29 ppb	07:13:17
1	SiO2†	27635.5	26383.8	5388.8 µg/L	5388.8 ppb	07:12:56
1	Si 251.611†	32491.6	32242.6	2519.8 µg/L	2519.8 ppb	07:12:56
1	Sn 189.927†	1180.7	1182.1	511.65 µg/L	511.65 ppb	07:13:17
1	Ti 334.940†	213968.8	214177.1	494.23 µg/L	494.23 ppb	07:12:50
1	Tl 190.801†	356.8	381.0	509.12 µg/L	509.12 ppb	07:13:17
1	U 409.014†	5877.9	5975.3	508.81 µg/L	508.81 ppb	07:12:56
1	V 292.402†	49378.6	49494.4	506.53 µg/L	506.53 ppb	07:12:56
1	Zn 213.857†	21877.5	21444.5	501.96 µg/L	501.96 ppb	07:12:56
2	Sc RADIAL	57294.2	57294.2	100 %		07:11:53
2	Al 396.153Radial†	7172.5	7194.3	5001.2 µg/L	5001.2 ppb	07:11:53
2	Ca 317.933Radial†	5788.6	5599.8	4861.0 µg/L	4861.0 ppb	07:12:13
2	Fe 238.204 Radial†	642.3	628.3	4974.4 µg/L	4974.4 ppb	07:12:13
2	K 766.490 Radial†	7562.5	7393.4	5089.0 µg/L	5089.0 ppb	07:11:53
2	Mg 279.077 IEC†	592.1	581.1	5149.1 µg/L	5149.1 ppb	07:12:13
2	Na 589.592 Radial†	32362.0	31837.1	9906.6 µg/L	9906.6 ppb	07:11:53
2	Sr 421.552†	50694.1	50651.4	499.83 µg/L	499.83 ppb	07:11:53
2	Sc 361.383	2007664.9	2007664.9	101.13 %		07:13:24
2	Y 371.029	1376250.3	1376250.3	100.87 %		07:13:24
2	Ag 328.068†	64742.3	64582.3	493.73 µg/L	493.73 ppb	07:13:29
2	As 188.979†	277.2	272.3	499.54 µg/L	499.54 ppb	07:13:50
2	B 249.677†	12397.7	11965.4	491.47 µg/L	491.47 ppb	07:13:29
2	Ba 233.527†	20363.8	20163.0	498.23 µg/L	498.23 ppb	07:13:29
2	Be 313.107†	800825.2	795506.6	494.14 µg/L	494.14 ppb	07:13:24
2	Cd 226.502†	19272.4	19204.0	498.67 µg/L	498.67 ppb	07:13:29
2	Co 228.616†	10877.2	10764.9	500.10 µg/L	500.10 ppb	07:13:29
2	Cr 267.716†	24283.7	24061.8	501.04 µg/L	501.04 ppb	07:13:29
2	Cu 324.752†	78556.2	75237.1	497.59 µg/L	497.59 ppb	07:13:29
2	Mn 257.610†	154910.0	153449.4	499.40 µg/L	499.40 ppb	07:13:24
2	Mo 202.031†	5022.1	4971.0	501.91 µg/L	501.91 ppb	07:13:50
2	Ni 231.604†	10104.9	9689.8	499.77 µg/L	499.77 ppb	07:13:29
2	P 214.914†	1270.0	1229.2	2421.8 µg/L	2421.8 ppb	07:13:50
2	Pb 220.353†	2111.9	2001.5	501.62 µg/L	501.62 ppb	07:13:50

2	S 181.975 Axial†	254.1	233.8	972.43 µg/L	972.43 ppb	07:13:50
2	Sb 206.836†	562.3	532.4	495.04 µg/L	495.04 ppb	07:13:50
2	Se 196.026†	366.9	344.4	502.29 µg/L	502.29 ppb	07:13:50
2	SiO2†	27826.8	26226.0	5356.6 µg/L	5356.6 ppb	07:13:29
2	Si 251.611†	32703.1	32043.8	2504.2 µg/L	2504.2 ppb	07:13:29
2	Sn 189.927†	1178.8	1165.4	504.43 µg/L	504.43 ppb	07:13:50
2	Ti 334.940†	214599.8	212114.4	489.47 µg/L	489.47 ppb	07:13:24
2	Tl 190.801†	356.5	376.3	502.78 µg/L	502.78 ppb	07:13:50
2	U 409.014†	5866.8	5890.6	501.61 µg/L	501.61 ppb	07:13:29
2	V 292.402†	49586.3	49079.8	502.22 µg/L	502.22 ppb	07:13:29
2	Zn 213.857†	21943.4	21235.0	497.07 µg/L	497.07 ppb	07:13:29
3	Sc RADIAL	58495.7	58495.7	102 %		07:12:18
3	Al 396.153Radial†	7055.6	6932.6	4820.3 µg/L	4820.3 ppb	07:12:18
3	Ca 317.933Radial†	5806.6	5498.5	4773.0 µg/L	4773.0 ppb	07:12:39
3	Fe 238.204 Radial†	648.2	621.0	4915.5 µg/L	4915.5 ppb	07:12:39
3	K 766.490 Radial†	7508.3	7185.0	4945.6 µg/L	4945.6 ppb	07:12:18
3	Mg 279.077 IEC†	589.8	566.6	5019.7 µg/L	5019.7 ppb	07:12:39
3	Na 589.592 Radial†	31880.2	30700.9	9553.0 µg/L	9553.0 ppb	07:12:18
3	Sr 421.552†	50005.7	48936.5	482.91 µg/L	482.91 ppb	07:12:18
3	Sc 361.383	2001194.7	2001194.7	100.80 %		07:13:57
3	Y 371.029	1370075.6	1370075.6	100.42 %		07:13:57
3	Ag 328.068†	60940.1	61017.2	466.38 µg/L	466.38 ppb	07:14:03
3	As 188.979†	247.5	243.8	447.25 µg/L	447.25 ppb	07:14:23
3	B 249.677†	11571.8	11185.7	459.27 µg/L	459.27 ppb	07:14:03
3	Ba 233.527†	18698.3	18575.9	459.00 µg/L	459.00 ppb	07:14:03
3	Be 313.107†	754815.7	752422.9	467.38 µg/L	467.38 ppb	07:13:57
3	Cd 226.502†	17652.7	17658.7	458.50 µg/L	458.50 ppb	07:14:03
3	Co 228.616†	9911.9	9842.1	457.17 µg/L	457.17 ppb	07:14:03
3	Cr 267.716†	21569.9	21447.2	446.60 µg/L	446.60 ppb	07:14:03
3	Cu 324.752†	71898.2	68883.2	455.62 µg/L	455.62 ppb	07:14:03
3	Mn 257.610†	146304.8	145407.8	473.25 µg/L	473.25 ppb	07:13:57
3	Mo 202.031†	4281.4	4252.2	429.36 µg/L	429.36 ppb	07:14:23
3	Ni 231.604†	9225.4	8849.7	456.44 µg/L	456.44 ppb	07:14:03
3	P 214.914†	1122.3	1086.8	2139.0 µg/L	2139.0 ppb	07:14:23
3	Pb 220.353†	1879.7	1777.9	445.51 µg/L	445.51 ppb	07:14:23
3	S 181.975 Axial†	231.6	212.4	883.24 µg/L	883.24 ppb	07:14:23
3	Sb 206.836†	500.9	473.2	439.72 µg/L	439.72 ppb	07:14:23
3	Se 196.026†	338.8	317.8	464.04 µg/L	464.04 ppb	07:14:23
3	SiO2†	25877.6	24381.2	4979.8 µg/L	4979.8 ppb	07:14:03
3	Si 251.611†	30327.3	29791.4	2328.2 µg/L	2328.2 ppb	07:14:03
3	Sn 189.927†	993.5	985.3	426.48 µg/L	426.48 ppb	07:14:23
3	Ti 334.940†	201985.5	200286.4	462.17 µg/L	462.17 ppb	07:13:57
3	Tl 190.801†	328.2	349.3	466.90 µg/L	466.90 ppb	07:14:23
3	U 409.014†	5235.3	5282.9	449.77 µg/L	449.77 ppb	07:14:03
3	V 292.402†	45088.2	44775.9	457.97 µg/L	457.97 ppb	07:14:03
3	Zn 213.857†	20061.5	19438.2	454.98 µg/L	454.98 ppb	07:14:03

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1997117.0	100.59 %	0.658			0.65%
Sc RADIAL	57462.0	100 %	1.7			1.67%
Y 371.029	1368231.4	100.28 %	0.666			0.66%
Ag 328.068†	63569.8	485.96 µg/L	17.075	485.96 ppb	17.075	3.51%
QC value within limits for Ag 328.068 Recovery = 97.19%						
Al 396.153Radial†	7132.4	4958.5 µg/L	122.50	4958.5 ppb	122.50	2.47%
QC value within limits for Al 396.153Radial Recovery = 99.17%						
As 188.979†	264.9	486.08 µg/L	34.154	486.08 ppb	34.154	7.03%
QC value within limits for As 188.979 Recovery = 97.22%						
B 249.677†	11708.4	480.83 µg/L	18.673	480.83 ppb	18.673	3.88%
QC value within limits for B 249.677 Recovery = 96.17%						
Ba 233.527†	19679.2	486.27 µg/L	23.674	486.27 ppb	23.674	4.87%
QC value within limits for Ba 233.527 Recovery = 97.25%						
Be 313.107†	783378.9	486.60 µg/L	16.782	486.60 ppb	16.782	3.45%
QC value within limits for Be 313.107 Recovery = 97.32%						
Ca 317.933Radial†	5598.3	4859.7 µg/L	86.01	4859.7 ppb	86.01	1.77%
QC value within limits for Ca 317.933Radial Recovery = 97.19%						
Cd 226.502†	18739.9	486.61 µg/L	24.416	486.61 ppb	24.416	5.02%
QC value within limits for Cd 226.502 Recovery = 97.32%						
Co 228.616†	10470.1	486.38 µg/L	25.316	486.38 ppb	25.316	5.20%

QC value within limits for Co 228.616 Recovery = 97.28%						
Cr 267.716†	23253.2	484.20 µg/L	32.623	484.20 ppb	32.623	6.74%
QC value within limits for Cr 267.716 Recovery = 96.84%						
Cu 324.752†	73261.2	484.55 µg/L	25.091	484.55 ppb	25.091	5.18%
QC value within limits for Cu 324.752 Recovery = 96.91%						
Fe 238.204 Radial†	632.2	5004.3 µg/L	106.98	5004.3 ppb	106.98	2.14%
QC value within limits for Fe 238.204 Radial Recovery = 100.09%						
K 766.490 Radial†	7339.7	5052.1 µg/L	93.64	5052.1 ppb	93.64	1.85%
QC value within limits for K 766.490 Radial Recovery = 101.04%						
Mg 279.077 IEC†	578.2	5122.9 µg/L	92.90	5122.9 ppb	92.90	1.81%
QC value within limits for Mg 279.077 IEC Recovery = 102.46%						
Mn 257.610†	151269.8	492.32 µg/L	16.695	492.32 ppb	16.695	3.39%
QC value within limits for Mn 257.610 Recovery = 98.46%						
Mo 202.031†	4769.4	481.56 µg/L	45.573	481.56 ppb	45.573	9.46%
QC value within limits for Mo 202.031 Recovery = 96.31%						
Na 589.592 Radial†	31541.3	9814.6 µg/L	229.75	9814.6 ppb	229.75	2.34%
QC value within limits for Na 589.592 Radial Recovery = 98.15%						
Ni 231.604†	9453.1	487.57 µg/L	27.163	487.57 ppb	27.163	5.57%
QC value within limits for Ni 231.604 Recovery = 97.51%						
P 214.914†	1196.8	2357.6 µg/L	194.65	2357.6 ppb	194.65	8.26%
QC value within limits for P 214.914 Recovery = 94.30%						
Pb 220.353†	1941.6	486.59 µg/L	36.000	486.59 ppb	36.000	7.40%
QC value within limits for Pb 220.353 Recovery = 97.32%						
S 181.975 Axial†	227.7	946.87 µg/L	55.454	946.87 ppb	55.454	5.86%
QC value within limits for S 181.975 Axial Recovery = 94.69%						
Sb 206.836†	514.9	478.70 µg/L	33.907	478.70 ppb	33.907	7.08%
QC value within limits for Sb 206.836 Recovery = 95.74%						
Se 196.026†	340.6	496.87 µg/L	30.492	496.87 ppb	30.492	6.14%
QC value within limits for Se 196.026 Recovery = 99.37%						
SiO2†	25663.7	5241.7 µg/L	227.42	5241.7 ppb	227.42	4.34%
QC value within limits for SiO2 Recovery = 98.02%						
Si 251.611†	31359.3	2450.7 µg/L	106.40	2450.7 ppb	106.40	4.34%
QC value within limits for Si 251.611 Recovery = 98.03%						
Sn 189.927†	1110.9	480.85 µg/L	47.225	480.85 ppb	47.225	9.82%
QC value within limits for Sn 189.927 Recovery = 96.17%						
Sr 421.552†	50167.4	495.06 µg/L	10.599	495.06 ppb	10.599	2.14%
QC value within limits for Sr 421.552 Recovery = 99.01%						
Ti 334.940†	208859.3	481.96 µg/L	17.303	481.96 ppb	17.303	3.59%
QC value within limits for Ti 334.940 Recovery = 96.39%						
Tl 190.801†	368.9	492.93 µg/L	22.767	492.93 ppb	22.767	4.62%
QC value within limits for Tl 190.801 Recovery = 98.59%						
U 409.014†	5716.2	486.73 µg/L	32.211	486.73 ppb	32.211	6.62%
QC value within limits for U 409.014 Recovery = 97.35%						
V 292.402†	47783.4	488.91 µg/L	26.878	488.91 ppb	26.878	5.50%
QC value within limits for V 292.402 Recovery = 97.78%						
Zn 213.857†	20705.9	484.67 µg/L	25.830	484.67 ppb	25.830	5.33%
QC value within limits for Zn 213.857 Recovery = 96.93%						

All analyte(s) passed QC.



Sequence No.: 10  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/12/2010 07:14:32  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56105.4	56105.4	98.0 %		07:15:05
1	Al 396.153Radial†	-5.8	18.3	12.738 µg/L	12.738 ppb	07:15:05
1	Ca 317.933Radial†	193.1	10.3	8.9002 µg/L	8.9002 ppb	07:15:25
1	Fe 238.204 Radial†	19.3	6.0	47.296 µg/L	47.296 ppb	07:15:25
1	K 766.490 Radial†	189.1	26.5	18.238 µg/L	18.238 ppb	07:15:05
1	Mg 279.077 IEC†	12.4	1.8	15.683 µg/L	15.683 ppb	07:15:25
1	Na 589.592 Radial†	585.1	83.5	25.981 µg/L	25.981 ppb	07:15:05
1	Sr 421.552†	28.7	3.9	0.0381 µg/L	0.0381 ppb	07:15:05
1	Sc 361.383	1961473.3	1961473.3	98.800 %		07:16:27
1	Y 371.029	1348897.3	1348897.3	98.864 %		07:16:27
1	Ag 328.068†	-436.7	119.0	0.9016 µg/L	0.9016 ppb	07:16:33
1	As 188.979†	-0.6	-2.5	-4.5515 µg/L	-4.5515 ppb	07:16:54
1	B 249.677†	352.1	62.2	2.5379 µg/L	2.5379 ppb	07:16:54
1	Ba 233.527†	-20.8	5.0	0.1224 µg/L	0.1224 ppb	07:16:54
1	Be 313.107†	-3388.4	170.8	0.1061 µg/L	0.1061 ppb	07:16:33
1	Cd 226.502†	-136.9	7.6	0.1926 µg/L	0.1926 ppb	07:16:54
1	Co 228.616†	-11.8	-3.1	-0.1430 µg/L	-0.1430 ppb	07:16:54
1	Cr 267.716†	-36.5	11.6	0.2404 µg/L	0.2404 ppb	07:16:33
1	Cu 324.752†	2582.0	169.2	1.1238 µg/L	1.1238 ppb	07:16:33
1	Mn 257.610†	-226.9	35.0	0.1194 µg/L	0.1194 ppb	07:16:54
1	Mo 202.031†	-8.2	-3.5	-0.3479 µg/L	-0.3479 ppb	07:16:54
1	Ni 231.604†	308.9	10.2	0.5279 µg/L	0.5279 ppb	07:16:54
1	P 214.914†	17.3	-9.1	-18.522 µg/L	-18.522 ppb	07:16:54
1	Pb 220.353†	104.1	18.5	4.6164 µg/L	4.6164 ppb	07:16:54
1	S 181.975 Axial†	16.2	-1.0	-4.2795 µg/L	-4.2795 ppb	07:16:54
1	Sb 206.836†	21.8	-1.6	-1.4608 µg/L	-1.4608 ppb	07:16:54
1	Se 196.026†	14.7	-3.5	-4.8527 µg/L	-4.8527 ppb	07:16:54
1	SiO2†	1400.6	126.7	25.880 µg/L	25.880 ppb	07:16:33
1	Si 251.611†	449.6	160.0	12.503 µg/L	12.503 ppb	07:16:54
1	Sn 189.927†	1.2	0.9	0.4065 µg/L	0.4065 ppb	07:16:54
1	Ti 334.940†	117.7	23.8	0.0539 µg/L	0.0539 ppb	07:16:33
1	Tl 190.801†	-24.5	-1.1	-1.4268 µg/L	-1.4268 ppb	07:16:54
1	U 409.014†	-49.1	39.4	3.3561 µg/L	3.3561 ppb	07:16:33
1	V 292.402†	-116.9	-72.7	-0.7275 µg/L	-0.7275 ppb	07:16:33
1	Zn 213.857†	495.5	37.5	0.8773 µg/L	0.8773 ppb	07:16:54
2	Sc RADIAL	56986.8	56986.8	99.5 %		07:15:31
2	Al 396.153Radial†	-17.6	6.5	4.5198 µg/L	4.5198 ppb	07:15:31
2	Ca 317.933Radial†	193.5	7.6	6.6075 µg/L	6.6075 ppb	07:15:51
2	Fe 238.204 Radial†	15.6	2.0	15.691 µg/L	15.691 ppb	07:15:51
2	K 766.490 Radial†	231.6	66.2	45.579 µg/L	45.579 ppb	07:15:31
2	Mg 279.077 IEC†	10.9	0.2	1.3970 µg/L	1.3970 ppb	07:15:51
2	Na 589.592 Radial†	548.7	37.7	11.732 µg/L	11.732 ppb	07:15:31
2	Sr 421.552†	16.9	-8.4	-0.0828 µg/L	-0.0828 ppb	07:15:31
2	Sc 361.383	1961940.7	1961940.7	98.823 %		07:17:00
2	Y 371.029	1349256.0	1349256.0	98.890 %		07:17:00
2	Ag 328.068†	-446.8	108.9	0.8279 µg/L	0.8279 ppb	07:17:05
2	As 188.979†	2.5	0.7	1.2758 µg/L	1.2758 ppb	07:17:26
2	B 249.677†	328.6	38.2	1.5680 µg/L	1.5680 ppb	07:17:26
2	Ba 233.527†	-8.6	17.3	0.4271 µg/L	0.4271 ppb	07:17:26
2	Be 313.107†	-3447.9	111.4	0.0692 µg/L	0.0692 ppb	07:17:05
2	Cd 226.502†	-134.3	10.3	0.2668 µg/L	0.2668 ppb	07:17:26
2	Co 228.616†	-0.9	7.9	0.3682 µg/L	0.3682 ppb	07:17:26
2	Cr 267.716†	-34.9	13.3	0.2759 µg/L	0.2759 ppb	07:17:05
2	Cu 324.752†	2584.6	171.2	1.1332 µg/L	1.1332 ppb	07:17:05
2	Mn 257.610†	-221.8	40.2	0.1327 µg/L	0.1327 ppb	07:17:26
2	Mo 202.031†	-1.2	3.7	0.3700 µg/L	0.3700 ppb	07:17:26
2	Ni 231.604†	312.5	13.8	0.7102 µg/L	0.7102 ppb	07:17:26
2	P 214.914†	18.8	-7.6	-15.316 µg/L	-15.316 ppb	07:17:26
2	Pb 220.353†	97.8	12.0	3.0079 µg/L	3.0079 ppb	07:17:26

2	S 181.975 Axial†	14.8	-2.5	-10.192 µg/L	-10.192 ppb	07:17:26
2	Sb 206.836†	20.9	-2.6	-2.3726 µg/L	-2.3726 ppb	07:17:26
2	Se 196.026†	12.2	-6.1	-8.6555 µg/L	-8.6555 ppb	07:17:26
2	SiO2†	1396.5	122.2	24.949 µg/L	24.949 ppb	07:17:05
2	Si 251.611†	457.4	167.8	13.111 µg/L	13.111 ppb	07:17:26
2	Sn 189.927†	2.6	2.3	0.9988 µg/L	0.9988 ppb	07:17:26
2	Ti 334.940†	158.6	65.1	0.1503 µg/L	0.1503 ppb	07:17:05
2	Tl 190.801†	-25.3	-1.8	-2.4323 µg/L	-2.4323 ppb	07:17:26
2	U 409.014†	-84.6	3.5	0.2928 µg/L	0.2928 ppb	07:17:05
2	V 292.402†	-39.3	5.9	0.0653 µg/L	0.0653 ppb	07:17:05
2	Zn 213.857†	490.9	32.7	0.7654 µg/L	0.7654 ppb	07:17:26
3	Sc RADIAL	57309.5	57309.5	100 %		07:15:57
3	Al 396.153Radial†	-10.5	13.8	9.5809 µg/L	9.5809 ppb	07:15:57
3	Ca 317.933Radial†	189.2	2.2	1.9162 µg/L	1.9162 ppb	07:16:17
3	Fe 238.204 Radial†	19.1	5.4	42.413 µg/L	42.413 ppb	07:16:17
3	K 766.490 Radial†	170.9	4.3	2.9876 µg/L	2.9876 ppb	07:15:57
3	Mg 279.077 IEC†	13.3	2.5	21.721 µg/L	21.721 ppb	07:16:17
3	Na 589.592 Radial†	580.0	65.9	20.492 µg/L	20.492 ppb	07:15:57
3	Sr 421.552†	48.1	22.7	0.2239 µg/L	0.2239 ppb	07:15:57
3	Sc 361.383	1983464.4	1983464.4	99.907 %		07:17:32
3	Y 371.029	1363646.5	1363646.5	99.945 %		07:17:32
3	Ag 328.068†	-468.5	92.1	0.7030 µg/L	0.7030 ppb	07:17:37
3	As 188.979†	-3.6	-5.4	-9.8886 µg/L	-9.8886 ppb	07:17:58
3	B 249.677†	335.1	41.2	1.6775 µg/L	1.6775 ppb	07:17:58
3	Ba 233.527†	1.5	27.6	0.6804 µg/L	0.6804 ppb	07:17:58
3	Be 313.107†	-3394.1	203.1	0.1262 µg/L	0.1262 ppb	07:17:37
3	Cd 226.502†	-137.1	9.0	0.2287 µg/L	0.2287 ppb	07:17:58
3	Co 228.616†	-6.6	2.3	0.1071 µg/L	0.1071 ppb	07:17:58
3	Cr 267.716†	-27.3	21.3	0.4429 µg/L	0.4429 ppb	07:17:37
3	Cu 324.752†	2565.4	123.6	0.8219 µg/L	0.8219 ppb	07:17:37
3	Mn 257.610†	-215.3	49.1	0.1646 µg/L	0.1646 ppb	07:17:58
3	Mo 202.031†	0.0	4.9	0.4951 µg/L	0.4951 ppb	07:17:58
3	Ni 231.604†	315.9	13.7	0.7082 µg/L	0.7082 ppb	07:17:58
3	P 214.914†	28.1	1.5	2.8840 µg/L	2.8840 ppb	07:17:58
3	Pb 220.353†	95.7	8.9	2.2238 µg/L	2.2238 ppb	07:17:58
3	S 181.975 Axial†	15.1	-2.3	-9.5330 µg/L	-9.5330 ppb	07:17:58
3	Sb 206.836†	32.1	8.5	7.8338 µg/L	7.8338 ppb	07:17:58
3	Se 196.026†	19.4	1.1	1.6589 µg/L	1.6589 ppb	07:17:58
3	SiO2†	1400.2	110.6	22.584 µg/L	22.584 ppb	07:17:37
3	Si 251.611†	462.2	167.6	13.096 µg/L	13.096 ppb	07:17:58
3	Sn 189.927†	0.3	-0.0	-0.0174 µg/L	-0.0174 ppb	07:17:58
3	Ti 334.940†	72.2	-23.1	-0.0550 µg/L	-0.0550 ppb	07:17:37
3	Tl 190.801†	-22.5	1.2	1.5558 µg/L	1.5558 ppb	07:17:58
3	U 409.014†	-77.5	11.5	0.9784 µg/L	0.9784 ppb	07:17:37
3	V 292.402†	-28.2	17.4	0.1871 µg/L	0.1871 ppb	07:17:37
3	Zn 213.857†	491.3	27.7	0.6464 µg/L	0.6464 ppb	07:17:58

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1968959.5	99.177 %	0.6328			0.64%
Sc RADIAL	56800.6	99.2 %	1.09			1.10%
Y 371.029	1353933.2	99.233 %	0.6167			0.62%
Ag 328.068†	106.7	0.8108 µg/L	0.10035	0.8108 ppb	0.10035	12.38%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	12.8	8.9464 µg/L	4.14589	8.9464 ppb	4.14589	46.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.4	-4.3881 µg/L	5.58396	-4.3881 ppb	5.58396	127.25%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	47.2	1.9278 µg/L	0.53121	1.9278 ppb	0.53121	27.56%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	16.6	0.4100 µg/L	0.27937	0.4100 ppb	0.27937	68.14%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	161.8	0.1005 µg/L	0.02894	0.1005 ppb	0.02894	28.79%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	6.7	5.8079 µg/L	3.55997	5.8079 ppb	3.55997	61.30%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	9.0	0.2293 µg/L	0.03715	0.2293 ppb	0.03715	16.20%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	2.4	0.1108 µg/L	0.25561	0.1108 ppb	0.25561	230.80%

Cr 267.716†	15.4	0.3197 µg/L	0.10815	0.3197 ppb	0.10815	33.83%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	154.7	1.0263 µg/L	0.17706	1.0263 ppb	0.17706	17.25%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	4.4	35.134 µg/L	17.0135	35.134 ppb	17.0135	48.43%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	32.4	22.268 µg/L	21.5797	22.268 ppb	21.5797	96.91%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.5	12.934 µg/L	10.4373	12.934 ppb	10.4373	80.70%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	41.4	0.1389 µg/L	0.02321	0.1389 ppb	0.02321	16.71%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	1.7	0.1724 µg/L	0.45489	0.1724 ppb	0.45489	263.84%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	62.4	19.402 µg/L	7.1868	19.402 ppb	7.1868	37.04%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	12.6	0.6487 µg/L	0.10468	0.6487 ppb	0.10468	16.14%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-5.1	-10.318 µg/L	11.5452	-10.318 ppb	11.5452	111.89%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	13.1	3.2827 µg/L	1.21973	3.2827 ppb	1.21973	37.16%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.9	-8.0015 µg/L	3.24018	-8.0015 ppb	3.24018	40.49%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	1.4	1.3335 µg/L	5.64790	1.3335 ppb	5.64790	423.55%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-2.8	-3.9498 µg/L	5.21614	-3.9498 ppb	5.21614	132.06%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	119.8	24.471 µg/L	1.6995	24.471 ppb	1.6995	6.94%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	165.1	12.903 µg/L	0.3470	12.903 ppb	0.3470	2.69%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	1.1	0.4626 µg/L	0.51040	0.4626 ppb	0.51040	110.33%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	6.1	0.0597 µg/L	0.15450	0.0597 ppb	0.15450	258.69%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	21.9	0.0497 µg/L	0.10273	0.0497 ppb	0.10273	206.62%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-0.6	-0.7678 µg/L	2.07412	-0.7678 ppb	2.07412	270.15%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	18.1	1.5424 µg/L	1.60762	1.5424 ppb	1.60762	104.23%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-16.4	-0.1584 µg/L	0.49663	-0.1584 ppb	0.49663	313.55%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	32.7	0.7630 µg/L	0.11545	0.7630 ppb	0.11545	15.13%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/12/2010 07:50:08

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57381.7	57381.7	100 %		07:50:46
1	Al 396.153Radial†	7221.0	7231.7	5026.8 µg/L	5026.8 ppb	07:50:46
1	Ca 317.933Radial†	5854.5	5656.7	4910.4 µg/L	4910.4 ppb	07:51:06
1	Fe 238.204 Radial†	656.6	641.7	5080.2 µg/L	5080.2 ppb	07:51:06
1	K 766.490 Radial†	7632.3	7451.6	5129.0 µg/L	5129.0 ppb	07:50:46
1	Mg 279.077 IEC†	594.9	582.9	5165.7 µg/L	5165.7 ppb	07:51:06
1	Na 589.592 Radial†	32512.7	31938.3	9938.1 µg/L	9938.1 ppb	07:50:46
1	Sr 421.552†	50915.2	50794.8	501.25 µg/L	501.25 ppb	07:50:46
1	Sc 361.383	1981698.7	1981698.7	99.818 %		07:52:10
1	Y 371.029	1360509.9	1360509.9	99.715 %		07:52:10
1	Ag 328.068†	65789.0	66469.8	508.16 µg/L	508.16 ppb	07:52:15
1	As 188.979†	290.1	288.8	529.80 µg/L	529.80 ppb	07:52:36
1	B 249.677†	12515.0	12243.6	502.91 µg/L	502.91 ppb	07:52:15
1	Ba 233.527†	20713.1	20776.9	513.40 µg/L	513.40 ppb	07:52:15
1	Be 313.107†	822070.7	827167.2	513.80 µg/L	513.80 ppb	07:52:10
1	Cd 226.502†	19589.2	19771.0	513.40 µg/L	513.40 ppb	07:52:15
1	Co 228.616†	11079.8	11108.8	516.07 µg/L	516.07 ppb	07:52:15
1	Cr 267.716†	24671.3	24764.7	515.68 µg/L	515.68 ppb	07:52:15
1	Cu 324.752†	79815.7	77516.8	512.66 µg/L	512.66 ppb	07:52:15
1	Mn 257.610†	159242.2	159796.7	520.05 µg/L	520.05 ppb	07:52:10
1	Mo 202.031†	5189.9	5204.2	525.45 µg/L	525.45 ppb	07:52:36
1	Ni 231.604†	10255.4	9971.6	514.30 µg/L	514.30 ppb	07:52:15
1	P 214.914†	1320.6	1296.4	2555.4 µg/L	2555.4 ppb	07:52:36
1	Pb 220.353†	2166.1	2083.2	522.12 µg/L	522.12 ppb	07:52:36
1	S 181.975 Axial†	257.1	240.1	998.56 µg/L	998.56 ppb	07:52:36
1	Sb 206.836†	573.1	550.5	512.04 µg/L	512.04 ppb	07:52:36
1	Se 196.026†	381.5	363.8	530.42 µg/L	530.42 ppb	07:52:36
1	SiO2†	28259.7	27020.2	5518.8 µg/L	5518.8 ppb	07:52:15
1	Si 251.611†	33254.1	33019.5	2580.5 µg/L	2580.5 ppb	07:52:15
1	Sn 189.927†	1202.8	1204.6	521.41 µg/L	521.41 ppb	07:52:36
1	Ti 334.940†	221184.3	221491.4	511.12 µg/L	511.12 ppb	07:52:10
1	Tl 190.801†	370.7	395.2	527.91 µg/L	527.91 ppb	07:52:36
1	U 409.014†	5967.9	6067.9	516.72 µg/L	516.72 ppb	07:52:15
1	V 292.402†	50429.1	50566.6	517.49 µg/L	517.49 ppb	07:52:15
1	Zn 213.857†	22279.8	21856.3	511.62 µg/L	511.62 ppb	07:52:15
2	Sc RADIAL	56676.9	56676.9	99.0 %		07:51:12
2	Al 396.153Radial†	7153.9	7253.6	5042.0 µg/L	5042.0 ppb	07:51:12
2	Ca 317.933Radial†	5850.6	5725.4	4970.0 µg/L	4970.0 ppb	07:51:32
2	Fe 238.204 Radial†	654.2	647.4	5125.2 µg/L	5125.2 ppb	07:51:32
2	K 766.490 Radial†	7497.3	7409.9	5100.3 µg/L	5100.3 ppb	07:51:12
2	Mg 279.077 IEC†	594.3	589.7	5225.8 µg/L	5225.8 ppb	07:51:32
2	Na 589.592 Radial†	32323.4	32150.5	10004 µg/L	10004 ppb	07:51:12
2	Sr 421.552†	50316.8	50822.0	501.52 µg/L	501.52 ppb	07:51:12
2	Sc 361.383	1973669.4	1973669.4	99.414 %		07:52:43
2	Y 371.029	1356681.1	1356681.1	99.434 %		07:52:43
2	Ag 328.068†	65853.0	66802.2	510.71 µg/L	510.71 ppb	07:52:48
2	As 188.979†	277.9	277.7	509.54 µg/L	509.54 ppb	07:53:09
2	B 249.677†	12591.7	12371.6	508.17 µg/L	508.17 ppb	07:52:48
2	Ba 233.527†	20686.1	20834.1	514.82 µg/L	514.82 ppb	07:52:48
2	Be 313.107†	820429.3	828866.5	514.86 µg/L	514.86 ppb	07:52:43
2	Cd 226.502†	19619.8	19881.6	516.27 µg/L	516.27 ppb	07:52:48
2	Co 228.616†	11074.8	11149.0	517.94 µg/L	517.94 ppb	07:52:48
2	Cr 267.716†	24735.8	24930.2	519.12 µg/L	519.12 ppb	07:52:48
2	Cu 324.752†	79975.1	78002.4	515.88 µg/L	515.88 ppb	07:52:48
2	Mn 257.610†	158859.7	160060.9	520.92 µg/L	520.92 ppb	07:52:43
2	Mo 202.031†	5158.3	5193.5	524.38 µg/L	524.38 ppb	07:53:09
2	Ni 231.604†	10275.9	10034.0	517.52 µg/L	517.52 ppb	07:52:48
2	P 214.914†	1321.6	1302.8	2567.8 µg/L	2567.8 ppb	07:53:09
2	Pb 220.353†	2161.1	2086.9	523.05 µg/L	523.05 ppb	07:53:09

2	S 181.975 Axial†	253.0	237.1	986.00 µg/L	986.00 ppb	07:53:09
2	Sb 206.836†	575.5	555.2	516.36 µg/L	516.36 ppb	07:53:09
2	Se 196.026†	384.2	368.1	536.63 µg/L	536.63 ppb	07:53:09
2	SiO2†	28371.2	27247.6	5565.2 µg/L	5565.2 ppb	07:52:48
2	Si 251.611†	33348.6	33250.1	2598.5 µg/L	2598.5 ppb	07:52:48
2	Sn 189.927†	1193.8	1200.6	519.66 µg/L	519.66 ppb	07:53:09
2	Ti 334.940†	220602.7	221807.9	511.85 µg/L	511.85 ppb	07:52:43
2	Tl 190.801†	361.2	387.1	517.27 µg/L	517.27 ppb	07:53:09
2	U 409.014†	5979.2	6103.6	519.75 µg/L	519.75 ppb	07:52:48
2	V 292.402†	50541.9	50885.6	520.72 µg/L	520.72 ppb	07:52:48
2	Zn 213.857†	22332.8	22000.4	514.99 µg/L	514.99 ppb	07:52:48
3	Sc RADIAL	56994.8	56994.8	99.5 %		07:51:38
3	Al 396.153Radial†	7208.4	7268.0	5053.8 µg/L	5053.8 ppb	07:51:38
3	Ca 317.933Radial†	5877.0	5719.0	4964.4 µg/L	4964.4 ppb	07:51:58
3	Fe 238.204 Radial†	662.0	651.6	5157.4 µg/L	5157.4 ppb	07:51:58
3	K 766.490 Radial†	7616.4	7487.3	5153.6 µg/L	5153.6 ppb	07:51:38
3	Mg 279.077 IEC†	599.1	591.2	5237.5 µg/L	5237.5 ppb	07:51:58
3	Na 589.592 Radial†	32542.2	32188.2	10016 µg/L	10016 ppb	07:51:38
3	Sr 421.552†	50897.4	51121.9	504.48 µg/L	504.48 ppb	07:51:38
3	Sc 361.383	1976698.3	1976698.3	99.566 %		07:53:16
3	Y 371.029	1358469.4	1358469.4	99.565 %		07:53:16
3	Ag 328.068†	62378.0	63210.6	483.15 µg/L	483.15 ppb	07:53:22
3	As 188.979†	248.7	247.9	454.92 µg/L	454.92 ppb	07:53:42
3	B 249.677†	11874.7	11632.2	477.58 µg/L	477.58 ppb	07:53:22
3	Ba 233.527†	19166.3	19275.8	476.30 µg/L	476.30 ppb	07:53:22
3	Be 313.107†	783268.0	790278.9	490.89 µg/L	490.89 ppb	07:53:16
3	Cd 226.502†	18098.6	18323.6	475.76 µg/L	475.76 ppb	07:53:22
3	Co 228.616†	10130.1	10183.1	472.99 µg/L	472.99 ppb	07:53:22
3	Cr 267.716†	22253.9	22399.4	466.43 µg/L	466.43 ppb	07:53:22
3	Cu 324.752†	73718.3	71595.1	473.57 µg/L	473.57 ppb	07:53:22
3	Mn 257.610†	151928.4	152854.6	497.49 µg/L	497.49 ppb	07:53:16
3	Mo 202.031†	4344.4	4368.1	441.07 µg/L	441.07 ppb	07:53:42
3	Ni 231.604†	9474.5	9213.3	475.20 µg/L	475.20 ppb	07:53:22
3	P 214.914†	1138.4	1116.7	2197.1 µg/L	2197.1 ppb	07:53:42
3	Pb 220.353†	1908.5	1829.9	458.53 µg/L	458.53 ppb	07:53:42
3	S 181.975 Axial†	231.6	215.2	894.96 µg/L	894.96 ppb	07:53:42
3	Sb 206.836†	495.5	474.0	440.33 µg/L	440.33 ppb	07:53:42
3	Se 196.026†	342.6	325.8	475.88 µg/L	475.88 ppb	07:53:42
3	SiO2†	26598.7	25423.6	5192.7 µg/L	5192.7 ppb	07:53:22
3	Si 251.611†	31221.5	31062.4	2427.5 µg/L	2427.5 ppb	07:53:22
3	Sn 189.927†	999.6	1003.6	434.42 µg/L	434.42 ppb	07:53:42
3	Ti 334.940†	209974.9	210793.8	486.42 µg/L	486.42 ppb	07:53:16
3	Tl 190.801†	329.2	354.3	473.82 µg/L	473.82 ppb	07:53:42
3	U 409.014†	5380.7	5493.3	467.68 µg/L	467.68 ppb	07:53:22
3	V 292.402†	46141.5	46388.1	474.45 µg/L	474.45 ppb	07:53:22
3	Zn 213.857†	20539.0	20164.4	471.96 µg/L	471.96 ppb	07:53:22

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1977355.5	99.600 %	0.2042			0.21%
Sc RADIAL	57017.8	99.6 %	0.62			0.62%
Y 371.029	1358553.5	99.572 %	0.1404			0.14%
Ag 328.068†	65494.2	500.68 µg/L	15.228	500.68 ppb	15.228	3.04%
QC value within limits for Ag 328.068 Recovery = 100.14%						
Al 396.153Radial†	7251.1	5040.9 µg/L	13.53	5040.9 ppb	13.53	0.27%
QC value within limits for Al 396.153Radial Recovery = 100.82%						
As 188.979†	271.5	498.09 µg/L	38.731	498.09 ppb	38.731	7.78%
QC value within limits for As 188.979 Recovery = 99.62%						
B 249.677†	12082.5	496.22 µg/L	16.352	496.22 ppb	16.352	3.30%
QC value within limits for B 249.677 Recovery = 99.24%						
Ba 233.527†	20295.6	501.50 µg/L	21.842	501.50 ppb	21.842	4.36%
QC value within limits for Ba 233.527 Recovery = 100.30%						
Be 313.107†	815437.5	506.52 µg/L	13.544	506.52 ppb	13.544	2.67%
QC value within limits for Be 313.107 Recovery = 101.30%						
Ca 317.933Radial†	5700.4	4948.3 µg/L	32.94	4948.3 ppb	32.94	0.67%
QC value within limits for Ca 317.933Radial Recovery = 98.97%						
Cd 226.502†	19325.4	501.81 µg/L	22.604	501.81 ppb	22.604	4.50%
QC value within limits for Cd 226.502 Recovery = 100.36%						
Co 228.616†	10813.6	502.33 µg/L	25.428	502.33 ppb	25.428	5.06%

Cr	267.716†	24031.4	500.41 µg/L	29.479	500.41 ppb	29.479	5.89%
QC value within limits for Cr 267.716 Recovery = 100.08%							
Cu	324.752†	75704.8	500.70 µg/L	23.556	500.70 ppb	23.556	4.70%
QC value within limits for Cu 324.752 Recovery = 100.14%							
Fe	238.204 Radial†	646.9	5120.9 µg/L	38.77	5120.9 ppb	38.77	0.76%
QC value within limits for Fe 238.204 Radial Recovery = 102.42%							
K	766.490 Radial†	7449.6	5127.7 µg/L	26.66	5127.7 ppb	26.66	0.52%
QC value within limits for K 766.490 Radial Recovery = 102.55%							
Mg	279.077 IEC†	588.0	5209.7 µg/L	38.55	5209.7 ppb	38.55	0.74%
QC value within limits for Mg 279.077 IEC Recovery = 104.19%							
Mn	257.610†	157570.7	512.82 µg/L	13.284	512.82 ppb	13.284	2.59%
QC value within limits for Mn 257.610 Recovery = 102.56%							
Mo	202.031†	4922.0	496.97 µg/L	48.412	496.97 ppb	48.412	9.74%
QC value within limits for Mo 202.031 Recovery = 99.39%							
Na	589.592 Radial†	32092.3	9986.0 µg/L	41.92	9986.0 ppb	41.92	0.42%
QC value within limits for Na 589.592 Radial Recovery = 99.86%							
Ni	231.604†	9739.6	502.34 µg/L	23.560	502.34 ppb	23.560	4.69%
QC value within limits for Ni 231.604 Recovery = 100.47%							
P	214.914†	1238.6	2440.1 µg/L	210.51	2440.1 ppb	210.51	8.63%
QC value within limits for P 214.914 Recovery = 97.60%							
Pb	220.353†	2000.0	501.24 µg/L	36.982	501.24 ppb	36.982	7.38%
QC value within limits for Pb 220.353 Recovery = 100.25%							
S	181.975 Axial†	230.8	959.84 µg/L	56.533	959.84 ppb	56.533	5.89%
QC value within limits for S 181.975 Axial Recovery = 95.98%							
Sb	206.836†	526.6	489.58 µg/L	42.702	489.58 ppb	42.702	8.72%
QC value within limits for Sb 206.836 Recovery = 97.92%							
Se	196.026†	352.6	514.31 µg/L	33.425	514.31 ppb	33.425	6.50%
QC value within limits for Se 196.026 Recovery = 102.86%							
SiO2†		26563.8	5425.6 µg/L	203.01	5425.6 ppb	203.01	3.74%
QC value within limits for SiO2 Recovery = 101.46%							
Si	251.611†	32444.0	2535.5 µg/L	93.94	2535.5 ppb	93.94	3.71%
QC value within limits for Si 251.611 Recovery = 101.42%							
Sn	189.927†	1136.3	491.83 µg/L	49.724	491.83 ppb	49.724	10.11%
QC value within limits for Sn 189.927 Recovery = 98.37%							
Sr	421.552†	50912.9	502.41 µg/L	1.791	502.41 ppb	1.791	0.36%
QC value within limits for Sr 421.552 Recovery = 100.48%							
Ti	334.940†	218031.1	503.13 µg/L	14.479	503.13 ppb	14.479	2.88%
QC value within limits for Ti 334.940 Recovery = 100.63%							
Tl	190.801†	378.9	506.33 µg/L	28.659	506.33 ppb	28.659	5.66%
QC value within limits for Tl 190.801 Recovery = 101.27%							
U	409.014†	5888.2	501.38 µg/L	29.229	501.38 ppb	29.229	5.83%
QC value within limits for U 409.014 Recovery = 100.28%							
V	292.402†	49280.1	504.22 µg/L	25.834	504.22 ppb	25.834	5.12%
QC value within limits for V 292.402 Recovery = 100.84%							
Zn	213.857†	21340.4	499.52 µg/L	23.930	499.52 ppb	23.930	4.79%
QC value within limits for Zn 213.857 Recovery = 99.90%							

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/12/2010 07:53:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56115.6	56115.6	98.0 %		07:54:24
1	Al 396.153Radial†	2.0	26.2	18.270 µg/L	18.270 ppb	07:54:24
1	Ca 317.933Radial†	198.1	15.4	13.331 µg/L	13.331 ppb	07:54:44
1	Fe 238.204 Radial†	17.0	3.6	28.493 µg/L	28.493 ppb	07:54:44
1	K 766.490 Radial†	229.3	67.5	46.458 µg/L	46.458 ppb	07:54:24
1	Mg 279.077 IEC†	12.3	1.8	15.651 µg/L	15.651 ppb	07:54:44
1	Na 589.592 Radial†	481.7	-22.1	-6.8739 µg/L	-6.8739 ppb	07:54:24
1	Sr 421.552†	47.5	23.0	0.2272 µg/L	0.2272 ppb	07:54:24
1	Sc 361.383	1977818.8	1977818.8	99.623 %		07:55:46
1	Y 371.029	1363090.1	1363090.1	99.904 %		07:55:46
1	Ag 328.068†	-449.6	109.8	0.8330 µg/L	0.8330 ppb	07:55:52
1	As 188.979†	-1.6	-3.4	-6.3385 µg/L	-6.3385 ppb	07:56:12
1	B 249.677†	355.3	62.4	2.5549 µg/L	2.5549 ppb	07:56:12
1	Ba 233.527†	-21.7	4.2	0.1039 µg/L	0.1039 ppb	07:56:12
1	Be 313.107†	-3279.4	308.5	0.1915 µg/L	0.1915 ppb	07:55:52
1	Cd 226.502†	-142.3	3.3	0.0825 µg/L	0.0825 ppb	07:56:12
1	Co 228.616†	-10.7	-1.9	-0.0871 µg/L	-0.0871 ppb	07:56:12
1	Cr 267.716†	-67.2	-18.9	-0.3942 µg/L	-0.3942 ppb	07:55:52
1	Cu 324.752†	2560.5	126.0	0.8363 µg/L	0.8363 ppb	07:55:52
1	Mn 257.610†	-140.4	123.7	0.4054 µg/L	0.4054 ppb	07:56:12
1	Mo 202.031†	-3.8	1.0	0.1021 µg/L	0.1021 ppb	07:56:12
1	Ni 231.604†	306.6	5.3	0.2734 µg/L	0.2734 ppb	07:56:12
1	P 214.914†	16.4	-10.2	-20.614 µg/L	-20.614 ppb	07:56:12
1	Pb 220.353†	87.7	1.1	0.2656 µg/L	0.2656 ppb	07:56:12
1	S 181.975 Axial†	14.4	-3.0	-12.277 µg/L	-12.277 ppb	07:56:12
1	Sb 206.836†	29.8	6.2	5.7529 µg/L	5.7529 ppb	07:56:12
1	Se 196.026†	18.2	-0.1	-0.0146 µg/L	-0.0146 ppb	07:56:12
1	SiO2†	1395.4	109.8	22.417 µg/L	22.417 ppb	07:55:52
1	Si 251.611†	451.6	158.2	12.363 µg/L	12.363 ppb	07:56:12
1	Sn 189.927†	-3.0	-3.3	-1.4321 µg/L	-1.4321 ppb	07:56:12
1	Ti 334.940†	307.3	213.1	0.4911 µg/L	0.4911 ppb	07:55:52
1	Tl 190.801†	-25.1	-1.5	-1.9563 µg/L	-1.9563 ppb	07:56:12
1	U 409.014†	-43.1	45.9	3.9104 µg/L	3.9104 ppb	07:55:52
1	V 292.402†	-77.4	-32.0	-0.3166 µg/L	-0.3166 ppb	07:55:52
1	Zn 213.857†	489.2	27.0	0.6321 µg/L	0.6321 ppb	07:56:12
2	Sc RADIAL	56154.7	56154.7	98.0 %		07:54:50
2	Al 396.153Radial†	5.6	29.9	20.834 µg/L	20.834 ppb	07:54:50
2	Ca 317.933Radial†	193.8	10.8	9.3538 µg/L	9.3538 ppb	07:55:10
2	Fe 238.204 Radial†	16.4	3.0	23.829 µg/L	23.829 ppb	07:55:10
2	K 766.490 Radial†	152.3	-11.1	-7.6545 µg/L	-7.6545 ppb	07:54:50
2	Mg 279.077 IEC†	8.4	-2.3	-19.988 µg/L	-19.988 ppb	07:55:10
2	Na 589.592 Radial†	503.8	0.1	0.0311 µg/L	0.0311 ppb	07:54:50
2	Sr 421.552†	40.3	15.7	0.1552 µg/L	0.1552 ppb	07:54:50
2	Sc 361.383	1965379.7	1965379.7	98.996 %		07:56:18
2	Y 371.029	1353979.6	1353979.6	99.236 %		07:56:18
2	Ag 328.068†	-450.2	106.3	0.8076 µg/L	0.8076 ppb	07:56:24
2	As 188.979†	-0.4	-2.2	-4.1322 µg/L	-4.1322 ppb	07:56:44
2	B 249.677†	333.5	42.6	1.7433 µg/L	1.7433 ppb	07:56:44
2	Ba 233.527†	-18.7	7.2	0.1766 µg/L	0.1766 ppb	07:56:44
2	Be 313.107†	-3478.1	87.0	0.0539 µg/L	0.0539 ppb	07:56:24
2	Cd 226.502†	-136.5	8.3	0.2123 µg/L	0.2123 ppb	07:56:44
2	Co 228.616†	0.5	9.4	0.4346 µg/L	0.4346 ppb	07:56:44
2	Cr 267.716†	-66.1	-18.2	-0.3789 µg/L	-0.3789 ppb	07:56:24
2	Cu 324.752†	2564.7	146.5	0.9709 µg/L	0.9709 ppb	07:56:24
2	Mn 257.610†	-168.4	94.6	0.3115 µg/L	0.3115 ppb	07:56:44
2	Mo 202.031†	-1.8	3.1	0.3107 µg/L	0.3107 ppb	07:56:44
2	Ni 231.604†	295.3	-4.2	-0.2179 µg/L	-0.2179 ppb	07:56:44
2	P 214.914†	19.7	-6.7	-13.527 µg/L	-13.527 ppb	07:56:44
2	Pb 220.353†	96.1	10.1	2.5305 µg/L	2.5305 ppb	07:56:44

2	S 181.975 Axial†	13.9	-3.4	-13.972 µg/L	-13.972 ppb	07:56:44
2	Sb 206.836†	23.4	-0.0	-0.0223 µg/L	-0.0223 ppb	07:56:44
2	Se 196.026†	14.3	-4.0	-5.5936 µg/L	-5.5936 ppb	07:56:44
2	SiO2†	1532.4	257.0	52.486 µg/L	52.486 ppb	07:56:24
2	Si 251.611†	498.3	208.3	16.276 µg/L	16.276 ppb	07:56:44
2	Sn 189.927†	2.7	2.4	1.0545 µg/L	1.0545 ppb	07:56:44
2	Ti 334.940†	307.1	214.9	0.4979 µg/L	0.4979 ppb	07:56:24
2	Tl 190.801†	-27.3	-3.8	-5.0185 µg/L	-5.0185 ppb	07:56:44
2	U 409.014†	-4.3	84.8	7.2287 µg/L	7.2287 ppb	07:56:24
2	V 292.402†	-54.9	-9.8	-0.0871 µg/L	-0.0871 ppb	07:56:24
2	Zn 213.857†	497.3	38.3	0.9030 µg/L	0.9030 ppb	07:56:44
3	Sc RADIAL	56137.5	56137.5	98.0 %		07:55:16
3	Al 396.153Radial†	-0.0	24.2	16.840 µg/L	16.840 ppb	07:55:16
3	Ca 317.933Radial†	198.1	15.2	13.200 µg/L	13.200 ppb	07:55:36
3	Fe 238.204 Radial†	14.7	1.3	10.600 µg/L	10.600 ppb	07:55:36
3	K 766.490 Radial†	180.4	17.5	12.066 µg/L	12.066 ppb	07:55:16
3	Mg 279.077 IEC†	14.1	3.5	31.397 µg/L	31.397 ppb	07:55:36
3	Na 589.592 Radial†	500.9	-2.7	-0.8466 µg/L	-0.8466 ppb	07:55:16
3	Sr 421.552†	64.8	40.7	0.4017 µg/L	0.4017 ppb	07:55:16
3	Sc 361.383	1975074.6	1975074.6	99.485 %		07:56:50
3	Y 371.029	1361237.6	1361237.6	99.768 %		07:56:50
3	Ag 328.068†	-557.9	0.3	-0.0009 µg/L	-0.0009 ppb	07:56:56
3	As 188.979†	-0.4	-2.2	-4.0375 µg/L	-4.0375 ppb	07:57:16
3	B 249.677†	330.6	38.1	1.5643 µg/L	1.5643 ppb	07:57:16
3	Ba 233.527†	-13.1	12.9	0.3171 µg/L	0.3171 ppb	07:57:16
3	Be 313.107†	-3512.9	69.3	0.0429 µg/L	0.0429 ppb	07:56:56
3	Cd 226.502†	-141.7	3.7	0.0964 µg/L	0.0964 ppb	07:57:16
3	Co 228.616†	-20.6	-11.9	-0.5523 µg/L	-0.5523 ppb	07:57:16
3	Cr 267.716†	-47.0	1.3	0.0272 µg/L	0.0272 ppb	07:56:56
3	Cu 324.752†	2506.0	74.8	0.4952 µg/L	0.4952 ppb	07:56:56
3	Mn 257.610†	-174.6	89.2	0.2901 µg/L	0.2901 ppb	07:57:16
3	Mo 202.031†	-5.4	-0.6	-0.0561 µg/L	-0.0561 ppb	07:57:16
3	Ni 231.604†	317.0	16.1	0.8326 µg/L	0.8326 ppb	07:57:16
3	P 214.914†	24.7	-1.8	-3.6399 µg/L	-3.6399 ppb	07:57:16
3	Pb 220.353†	90.0	3.6	0.8910 µg/L	0.8910 ppb	07:57:16
3	S 181.975 Axial†	14.7	-2.7	-11.089 µg/L	-11.089 ppb	07:57:16
3	Sb 206.836†	20.5	-3.1	-2.8426 µg/L	-2.8426 ppb	07:57:16
3	Se 196.026†	12.7	-5.6	-8.0526 µg/L	-8.0526 ppb	07:57:16
3	SiO2†	1387.7	104.0	21.237 µg/L	21.237 ppb	07:56:56
3	Si 251.611†	481.3	188.7	14.750 µg/L	14.750 ppb	07:57:16
3	Sn 189.927†	7.7	7.5	3.2399 µg/L	3.2399 ppb	07:57:16
3	Ti 334.940†	285.1	191.2	0.4392 µg/L	0.4392 ppb	07:56:56
3	Tl 190.801†	-19.5	4.2	5.5354 µg/L	5.5354 ppb	07:57:16
3	U 409.014†	-27.6	61.4	5.2327 µg/L	5.2327 ppb	07:56:56
3	V 292.402†	-102.1	-56.9	-0.5688 µg/L	-0.5688 ppb	07:56:56
3	Zn 213.857†	494.7	33.2	0.7753 µg/L	0.7753 ppb	07:57:16

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1972757.7	99.368 %	0.3292			0.33%
Sc RADIAL	56135.9	98.0 %	0.03			0.03%
Y 371.029	1359435.7	99.636 %	0.3529			0.35%
Ag 328.068†	72.1	0.5465 µg/L	0.47425	0.5465 ppb	0.47425	86.77%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	26.8	18.648 µg/L	2.0233	18.648 ppb	2.0233	10.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.6	-4.8361 µg/L	1.30199	-4.8361 ppb	1.30199	26.92%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	47.7	1.9541 µg/L	0.52793	1.9541 ppb	0.52793	27.02%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	8.1	0.1992 µg/L	0.10836	0.1992 ppb	0.10836	54.39%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	154.9	0.0961 µg/L	0.08284	0.0961 ppb	0.08284	86.20%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	13.8	11.962 µg/L	2.2593	11.962 ppb	2.2593	18.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	5.1	0.1304 µg/L	0.07127	0.1304 ppb	0.07127	54.65%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-1.4	-0.0683 µg/L	0.49372	-0.0683 ppb	0.49372	723.27%



QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-11.9	-0.2486 µg/L	0.23901	-0.2486 ppb	0.23901	96.13%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	115.8	0.7675 µg/L	0.24520	0.7675 ppb	0.24520	31.95%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	2.7	20.974 µg/L	9.2820	20.974 ppb	9.2820	44.26%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	24.6	16.956 µg/L	27.3855	16.956 ppb	27.3855	161.51%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.0	9.0199 µg/L	26.32680	9.0199 ppb	26.32680	291.88%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	102.5	0.3357 µg/L	0.06135	0.3357 ppb	0.06135	18.28%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.2	0.1189 µg/L	0.18398	0.1189 ppb	0.18398	154.71%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-8.2	-2.5631 µg/L	3.75893	-2.5631 ppb	3.75893	146.66%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	5.7	0.2960 µg/L	0.52563	0.2960 ppb	0.52563	177.55%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-6.2	-12.594 µg/L	8.5256	-12.594 ppb	8.5256	67.70%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	4.9	1.2290 µg/L	1.16969	1.2290 ppb	1.16969	95.17%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-3.0	-12.446 µg/L	1.4487	-12.446 ppb	1.4487	11.64%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	1.0	0.9627 µg/L	4.38160	0.9627 ppb	4.38160	455.15%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.2	-4.5536 µg/L	4.11868	-4.5536 ppb	4.11868	90.45%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	156.9	32.047 µg/L	17.7106	32.047 ppb	17.7106	55.27%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	185.1	14.463 µg/L	1.9722	14.463 ppb	1.9722	13.64%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	2.2	0.9541 µg/L	2.33762	0.9541 ppb	2.33762	245.01%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	26.5	0.2614 µg/L	0.12677	0.2614 ppb	0.12677	48.50%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	206.4	0.4761 µg/L	0.03213	0.4761 ppb	0.03213	6.75%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-0.4	-0.4798 µg/L	5.42965	-0.4798 ppb	5.42965	>999.9%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	64.0	5.4573 µg/L	1.67048	5.4573 ppb	1.67048	30.61%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-32.9	-0.3241 µg/L	0.24093	-0.3241 ppb	0.24093	74.33%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	32.8	0.7701 µg/L	0.13554	0.7701 ppb	0.13554	17.60%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 18

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/12/2010 08:22:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57160.6	57160.6	99.8 %		08:23:27
1	Al 396.153Radial†	7054.9	7093.2	4930.6 µg/L	4930.6 ppb	08:23:27
1	Ca 317.933Radial†	5660.0	5484.4	4760.8 µg/L	4760.8 ppb	08:23:47
1	Fe 238.204 Radial†	639.0	626.6	4960.9 µg/L	4960.9 ppb	08:23:47
1	K 766.490 Radial†	7440.3	7288.6	5016.9 µg/L	5016.9 ppb	08:23:27
1	Mg 279.077 IEC†	580.2	570.5	5055.9 µg/L	5055.9 ppb	08:23:47
1	Na 589.592 Radial†	31952.0	31502.0	9802.3 µg/L	9802.3 ppb	08:23:27
1	Sr 421.552†	49971.8	50046.1	493.86 µg/L	493.86 ppb	08:23:27
1	Sc 361.383	1989718.9	1989718.9	100.22 %		08:24:46
1	Y 371.029	1367817.6	1367817.6	100.25 %		08:24:46
1	Ag 328.068†	64534.1	64952.0	496.55 µg/L	496.55 ppb	08:24:52
1	As 188.979†	280.0	277.6	509.23 µg/L	509.23 ppb	08:25:12
1	B 249.677†	12276.6	11955.1	491.06 µg/L	491.06 ppb	08:24:52
1	Ba 233.527†	20170.2	20151.5	497.95 µg/L	497.95 ppb	08:24:52
1	Be 313.107†	797331.2	799162.9	496.41 µg/L	496.41 ppb	08:24:46
1	Cd 226.502†	19140.5	19244.3	499.72 µg/L	499.72 ppb	08:24:52
1	Co 228.616†	10808.2	10793.1	501.40 µg/L	501.40 ppb	08:24:52
1	Cr 267.716†	24112.4	24107.4	501.99 µg/L	501.99 ppb	08:24:52
1	Cu 324.752†	78302.4	75684.5	500.55 µg/L	500.55 ppb	08:24:52
1	Mn 257.610†	154674.7	154596.3	503.13 µg/L	503.13 ppb	08:24:46
1	Mo 202.031†	5046.5	5040.2	508.89 µg/L	508.89 ppb	08:25:12
1	Ni 231.604†	10013.9	9689.2	499.74 µg/L	499.74 ppb	08:24:52
1	P 214.914†	1285.6	1256.1	2475.5 µg/L	2475.5 ppb	08:25:12
1	Pb 220.353†	2107.1	2015.5	505.16 µg/L	505.16 ppb	08:25:12
1	S 181.975 Axial†	252.5	234.5	975.28 µg/L	975.28 ppb	08:25:12
1	Sb 206.836†	570.0	545.1	506.91 µg/L	506.91 ppb	08:25:12
1	Se 196.026†	387.3	368.0	536.29 µg/L	536.29 ppb	08:25:12
1	SiO2†	27425.0	26073.2	5325.4 µg/L	5325.4 ppb	08:24:52
1	Si 251.611†	32244.8	31878.2	2491.3 µg/L	2491.3 ppb	08:24:52
1	Sn 189.927†	1166.1	1163.2	503.49 µg/L	503.49 ppb	08:25:12
1	Ti 334.940†	215145.3	214572.7	495.15 µg/L	495.15 ppb	08:24:46
1	Tl 190.801†	358.8	381.7	510.01 µg/L	510.01 ppb	08:25:12
1	U 409.014†	5808.2	5884.5	501.10 µg/L	501.10 ppb	08:24:52
1	V 292.402†	49309.2	49245.5	503.95 µg/L	503.95 ppb	08:24:52
1	Zn 213.857†	21788.4	21276.0	498.04 µg/L	498.04 ppb	08:24:52
2	Sc RADIAL	57203.0	57203.0	99.9 %		08:23:52
2	Al 396.153Radial†	7065.0	7098.1	4934.0 µg/L	4934.0 ppb	08:23:52
2	Ca 317.933Radial†	5698.5	5518.8	4790.6 µg/L	4790.6 ppb	08:24:12
2	Fe 238.204 Radial†	643.2	630.3	4989.6 µg/L	4989.6 ppb	08:24:12
2	K 766.490 Radial†	7489.2	7332.0	5046.8 µg/L	5046.8 ppb	08:23:52
2	Mg 279.077 IEC†	583.8	573.7	5084.1 µg/L	5084.1 ppb	08:24:12
2	Na 589.592 Radial†	31921.4	31447.6	9785.4 µg/L	9785.4 ppb	08:23:52
2	Sr 421.552†	49913.0	49950.1	492.91 µg/L	492.91 ppb	08:23:52
2	Sc 361.383	1982473.9	1982473.9	99.857 %		08:25:19
2	Y 371.029	1361662.5	1361662.5	99.800 %		08:25:19
2	Ag 328.068†	63989.3	64641.7	494.19 µg/L	494.19 ppb	08:25:24
2	As 188.979†	277.8	276.4	507.02 µg/L	507.02 ppb	08:25:44
2	B 249.677†	12229.6	11952.8	490.94 µg/L	490.94 ppb	08:25:24
2	Ba 233.527†	20112.7	20167.5	498.34 µg/L	498.34 ppb	08:25:24
2	Be 313.107†	794214.7	798949.4	496.28 µg/L	496.28 ppb	08:25:19
2	Cd 226.502†	19056.9	19230.3	499.36 µg/L	499.36 ppb	08:25:24
2	Co 228.616†	10712.4	10736.5	498.78 µg/L	498.78 ppb	08:25:24
2	Cr 267.716†	23985.4	24068.2	501.17 µg/L	501.17 ppb	08:25:24
2	Cu 324.752†	77558.0	75224.5	497.51 µg/L	497.51 ppb	08:25:24
2	Mn 257.610†	154115.6	154600.4	503.15 µg/L	503.15 ppb	08:25:19
2	Mo 202.031†	5037.8	5049.8	509.86 µg/L	509.86 ppb	08:25:44
2	Ni 231.604†	9990.1	9701.9	500.40 µg/L	500.40 ppb	08:25:24
2	P 214.914†	1279.1	1254.3	2472.2 µg/L	2472.2 ppb	08:25:44
2	Pb 220.353†	2101.5	2017.5	505.68 µg/L	505.68 ppb	08:25:44

2	S 181.975 Axial†	257.5	240.5	1000.1 µg/L	1000.1 ppb	08:25:44
2	Sb 206.836†	562.8	540.0	502.20 µg/L	502.20 ppb	08:25:44
2	Se 196.026†	374.0	356.2	519.29 µg/L	519.29 ppb	08:25:44
2	SiO2†	27307.2	26055.2	5321.7 µg/L	5321.7 ppb	08:25:24
2	Si 251.611†	32113.8	31864.6	2490.2 µg/L	2490.2 ppb	08:25:24
2	Sn 189.927†	1172.5	1173.8	508.08 µg/L	508.08 ppb	08:25:44
2	Ti 334.940†	213522.3	213731.9	493.21 µg/L	493.21 ppb	08:25:19
2	Tl 190.801†	354.0	378.3	505.40 µg/L	505.40 ppb	08:25:44
2	U 409.014†	5734.3	5831.6	496.58 µg/L	496.58 ppb	08:25:24
2	V 292.402†	49095.6	49211.4	503.61 µg/L	503.61 ppb	08:25:24
2	Zn 213.857†	21658.2	21225.1	496.83 µg/L	496.83 ppb	08:25:24
3	Sc RADIAL	57341.1	57341.1	100 %		08:24:17
3	Al 396.153Radial†	7107.5	7123.4	4952.9 µg/L	4952.9 ppb	08:24:17
3	Ca 317.933Radial†	5692.5	5499.0	4773.5 µg/L	4773.5 ppb	08:24:37
3	Fe 238.204 Radial†	646.7	632.3	5004.9 µg/L	5004.9 ppb	08:24:37
3	K 766.490 Radial†	7459.3	7284.2	5013.8 µg/L	5013.8 ppb	08:24:17
3	Mg 279.077 IEC†	582.3	570.8	5057.0 µg/L	5057.0 ppb	08:24:37
3	Na 589.592 Radial†	32062.3	31511.4	9805.2 µg/L	9805.2 ppb	08:24:17
3	Sr 421.552†	50279.5	50195.9	495.34 µg/L	495.34 ppb	08:24:17
3	Sc 361.383	1998410.6	1998410.6	100.66 %		08:25:51
3	Y 371.029	1373845.8	1373845.8	100.69 %		08:25:51
3	Ag 328.068†	62575.3	62726.0	479.49 µg/L	479.49 ppb	08:25:56
3	As 188.979†	250.8	247.3	453.73 µg/L	453.73 ppb	08:26:17
3	B 249.677†	11892.6	11520.3	473.06 µg/L	473.06 ppb	08:25:56
3	Ba 233.527†	19463.6	19362.0	478.43 µg/L	478.43 ppb	08:25:56
3	Be 313.107†	776606.2	775113.6	481.47 µg/L	481.47 ppb	08:25:51
3	Cd 226.502†	18420.0	18445.4	478.95 µg/L	478.95 ppb	08:25:56
3	Co 228.616†	10299.3	10240.6	475.70 µg/L	475.70 ppb	08:25:56
3	Cr 267.716†	22836.6	22735.4	473.42 µg/L	473.42 ppb	08:25:56
3	Cu 324.752†	74731.4	71797.1	474.88 µg/L	474.88 ppb	08:25:56
3	Mn 257.610†	150741.9	150018.0	488.25 µg/L	488.25 ppb	08:25:51
3	Mo 202.031†	4496.9	4472.3	451.58 µg/L	451.58 ppb	08:26:17
3	Ni 231.604†	9635.4	9269.8	478.11 µg/L	478.11 ppb	08:25:56
3	P 214.914†	1165.3	1131.1	2226.0 µg/L	2226.0 ppb	08:26:17
3	Pb 220.353†	1943.3	1843.6	461.99 µg/L	461.99 ppb	08:26:17
3	S 181.975 Axial†	237.1	218.1	907.04 µg/L	907.04 ppb	08:26:17
3	Sb 206.836†	515.4	488.3	453.74 µg/L	453.74 ppb	08:26:17
3	Se 196.026†	345.2	324.5	473.94 µg/L	473.94 ppb	08:26:17
3	SiO2†	26568.1	25102.9	5127.2 µg/L	5127.2 ppb	08:25:56
3	Si 251.611†	31199.3	30699.6	2399.2 µg/L	2399.2 ppb	08:25:56
3	Sn 189.927†	1034.4	1027.3	444.68 µg/L	444.68 ppb	08:26:17
3	Ti 334.940†	208298.3	206837.0	477.29 µg/L	477.29 ppb	08:25:51
3	Tl 190.801†	337.2	358.7	479.42 µg/L	479.42 ppb	08:26:17
3	U 409.014†	5605.0	5657.4	481.72 µg/L	481.72 ppb	08:25:56
3	V 292.402†	47078.6	46815.6	478.86 µg/L	478.86 ppb	08:25:56
3	Zn 213.857†	20911.0	20309.8	475.39 µg/L	475.39 ppb	08:25:56

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1990201.1	100.25 %	0.402			0.40%
Sc RADIAL	57234.9	99.9 %	0.16			0.16%
Y 371.029	1367775.3	100.25 %	0.446			0.45%
Ag 328.068†	64106.6	490.08 µg/L	9.241	490.08 ppb	9.241	1.89%
QC value within limits for Ag 328.068 Recovery = 98.02%						
Al 396.153Radial†	7104.9	4939.2 µg/L	11.98	4939.2 ppb	11.98	0.24%
QC value within limits for Al 396.153Radial Recovery = 98.78%						
As 188.979†	267.1	489.99 µg/L	31.427	489.99 ppb	31.427	6.41%
QC value within limits for As 188.979 Recovery = 98.00%						
B 249.677†	11809.4	485.02 µg/L	10.357	485.02 ppb	10.357	2.14%
QC value within limits for B 249.677 Recovery = 97.00%						
Ba 233.527†	19893.6	491.57 µg/L	11.384	491.57 ppb	11.384	2.32%
QC value within limits for Ba 233.527 Recovery = 98.31%						
Be 313.107†	791075.3	491.38 µg/L	8.586	491.38 ppb	8.586	1.75%
QC value within limits for Be 313.107 Recovery = 98.28%						
Ca 317.933Radial†	5500.7	4775.0 µg/L	14.95	4775.0 ppb	14.95	0.31%
QC value within limits for Ca 317.933Radial Recovery = 95.50%						
Cd 226.502†	18973.3	492.67 µg/L	11.890	492.67 ppb	11.890	2.41%
QC value within limits for Cd 226.502 Recovery = 98.53%						
Co 228.616†	10590.1	491.96 µg/L	14.146	491.96 ppb	14.146	2.88%

QC value within limits for Co 228.616 Recovery = 98.39%					
Cr 267.716†	23637.0	492.20 µg/L	16.262	492.20 ppb	3.30%
QC value within limits for Cr 267.716 Recovery = 98.44%					
Cu 324.752†	74235.4	490.98 µg/L	14.026	490.98 ppb	2.86%
QC value within limits for Cu 324.752 Recovery = 98.20%					
Fe 238.204 Radial†	629.7	4985.1 µg/L	22.34	4985.1 ppb	0.45%
QC value within limits for Fe 238.204 Radial Recovery = 99.70%					
K 766.490 Radial†	7301.6	5025.8 µg/L	18.20	5025.8 ppb	0.36%
QC value within limits for K 766.490 Radial Recovery = 100.52%					
Mg 279.077 IEC†	571.7	5065.6 µg/L	15.97	5065.6 ppb	0.32%
QC value within limits for Mg 279.077 IEC Recovery = 101.31%					
Mn 257.610†	153071.5	498.18 µg/L	8.596	498.18 ppb	1.73%
QC value within limits for Mn 257.610 Recovery = 99.64%					
Mo 202.031†	4854.1	490.11 µg/L	33.375	490.11 ppb	6.81%
QC value within limits for Mo 202.031 Recovery = 98.02%					
Na 589.592 Radial†	31487.0	9797.6 µg/L	10.71	9797.6 ppb	0.11%
QC value within limits for Na 589.592 Radial Recovery = 97.98%					
Ni 231.604†	9553.6	492.75 µg/L	12.681	492.75 ppb	2.57%
QC value within limits for Ni 231.604 Recovery = 98.55%					
P 214.914†	1213.8	2391.3 µg/L	143.09	2391.3 ppb	5.98%
QC value within limits for P 214.914 Recovery = 95.65%					
Pb 220.353†	1958.9	490.94 µg/L	25.075	490.94 ppb	5.11%
QC value within limits for Pb 220.353 Recovery = 98.19%					
S 181.975 Axial†	231.0	960.82 µg/L	48.203	960.82 ppb	5.02%
QC value within limits for S 181.975 Axial Recovery = 96.08%					
Sb 206.836†	524.4	487.62 µg/L	29.430	487.62 ppb	6.04%
QC value within limits for Sb 206.836 Recovery = 97.52%					
Se 196.026†	349.6	509.84 µg/L	32.236	509.84 ppb	6.32%
QC value within limits for Se 196.026 Recovery = 101.97%					
SiO2†	25743.8	5258.1 µg/L	113.37	5258.1 ppb	2.16%
QC value within limits for SiO2 Recovery = 98.33%					
Si 251.611†	31480.8	2460.2 µg/L	52.87	2460.2 ppb	2.15%
QC value within limits for Si 251.611 Recovery = 98.41%					
Sn 189.927†	1121.5	485.41 µg/L	35.355	485.41 ppb	7.28%
QC value within limits for Sn 189.927 Recovery = 97.08%					
Sr 421.552†	50064.0	494.04 µg/L	1.223	494.04 ppb	0.25%
QC value within limits for Sr 421.552 Recovery = 98.81%					
Ti 334.940†	211713.8	488.55 µg/L	9.800	488.55 ppb	2.01%
QC value within limits for Ti 334.940 Recovery = 97.71%					
Tl 190.801†	372.9	498.28 µg/L	16.489	498.28 ppb	3.31%
QC value within limits for Tl 190.801 Recovery = 99.66%					
U 409.014†	5791.2	493.13 µg/L	10.141	493.13 ppb	2.06%
QC value within limits for U 409.014 Recovery = 98.63%					
V 292.402†	48424.2	495.47 µg/L	14.385	495.47 ppb	2.90%
QC value within limits for V 292.402 Recovery = 99.09%					
Zn 213.857†	20937.0	490.09 µg/L	12.740	490.09 ppb	2.60%
QC value within limits for Zn 213.857 Recovery = 98.02%					

All analyte(s) passed QC.

Sequence No.: 19

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/12/2010 08:26:25

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56540.0	56540.0	98.7 %		08:26:57
1	Al 396.153Radial†	-9.5	14.6	10.145 µg/L	10.145 ppb	08:26:57
1	Ca 317.933Radial†	191.3	6.9	5.9762 µg/L	5.9762 ppb	08:27:17
1	Fe 238.204 Radial†	14.5	1.0	8.1795 µg/L	8.1795 ppb	08:27:17
1	K 766.490 Radial†	132.0	-32.8	-22.568 µg/L	-22.568 ppb	08:26:57
1	Mg 279.077 IEC†	12.9	2.2	19.417 µg/L	19.417 ppb	08:27:17
1	Na 589.592 Radial†	491.4	-16.0	-4.9770 µg/L	-4.9770 ppb	08:26:57
1	Sr 421.552†	48.9	24.1	0.2378 µg/L	0.2378 ppb	08:26:57
1	Sc 361.383	1984213.3	1984213.3	99.945 %		08:28:16
1	Y 371.029	1368350.9	1368350.9	100.29 %		08:28:16
1	Ag 328.068†	-508.3	52.5	0.3965 µg/L	0.3965 ppb	08:28:21
1	As 188.979†	0.3	-1.6	-2.8659 µg/L	-2.8659 ppb	08:28:41
1	B 249.677†	339.2	45.1	1.8554 µg/L	1.8554 ppb	08:28:41
1	Ba 233.527†	-11.3	14.7	0.3616 µg/L	0.3616 ppb	08:28:41
1	Be 313.107†	-3383.7	214.8	0.1334 µg/L	0.1334 ppb	08:28:21
1	Cd 226.502†	-144.8	1.3	0.0333 µg/L	0.0333 ppb	08:28:41
1	Co 228.616†	-11.3	-2.4	-0.1133 µg/L	-0.1133 ppb	08:28:41
1	Cr 267.716†	-38.5	10.1	0.2091 µg/L	0.2091 ppb	08:28:41
1	Cu 324.752†	2536.9	94.2	0.6230 µg/L	0.6230 ppb	08:28:21
1	Mn 257.610†	-210.5	54.0	0.1759 µg/L	0.1759 ppb	08:28:41
1	Mo 202.031†	-6.1	-1.3	-0.1300 µg/L	-0.1300 ppb	08:28:41
1	Ni 231.604†	304.6	2.3	0.1201 µg/L	0.1201 ppb	08:28:41
1	P 214.914†	24.5	-2.1	-4.2017 µg/L	-4.2017 ppb	08:28:41
1	Pb 220.353†	90.0	3.1	0.7753 µg/L	0.7753 ppb	08:28:41
1	S 181.975 Axial†	17.6	0.2	0.7459 µg/L	0.7459 ppb	08:28:41
1	Sb 206.836†	19.5	-4.2	-3.8631 µg/L	-3.8631 ppb	08:28:41
1	Se 196.026†	18.1	-0.2	-0.3115 µg/L	-0.3115 ppb	08:28:41
1	SiO2†	1321.2	31.0	6.3269 µg/L	6.3269 ppb	08:28:21
1	Si 251.611†	385.9	91.0	7.1141 µg/L	7.1141 ppb	08:28:41
1	Sn 189.927†	5.4	5.1	2.2288 µg/L	2.2288 ppb	08:28:41
1	Ti 334.940†	158.7	63.4	0.1450 µg/L	0.1450 ppb	08:28:21
1	Tl 190.801†	-26.4	-2.7	-3.4989 µg/L	-3.4989 ppb	08:28:41
1	U 409.014†	-11.0	78.1	6.6607 µg/L	6.6607 ppb	08:28:21
1	V 292.402†	-80.1	-34.5	-0.3410 µg/L	-0.3410 ppb	08:28:21
1	Zn 213.857†	488.5	24.7	0.5794 µg/L	0.5794 ppb	08:28:41
2	Sc RADIAL	56101.0	56101.0	98.0 %		08:27:22
2	Al 396.153Radial†	-11.8	12.1	8.4306 µg/L	8.4306 ppb	08:27:22
2	Ca 317.933Radial†	192.9	10.0	8.7209 µg/L	8.7209 ppb	08:27:43
2	Fe 238.204 Radial†	17.0	3.7	28.883 µg/L	28.883 ppb	08:27:43
2	K 766.490 Radial†	201.0	38.7	26.671 µg/L	26.671 ppb	08:27:22
2	Mg 279.077 IEC†	10.8	0.1	1.3103 µg/L	1.3103 ppb	08:27:43
2	Na 589.592 Radial†	473.4	-30.5	-9.4779 µg/L	-9.4779 ppb	08:27:22
2	Sr 421.552†	43.0	18.5	0.1828 µg/L	0.1828 ppb	08:27:22
2	Sc 361.383	2001647.1	2001647.1	100.82 %		08:28:47
2	Y 371.029	1380015.3	1380015.3	101.14 %		08:28:47
2	Ag 328.068†	-478.9	86.1	0.6545 µg/L	0.6545 ppb	08:28:52
2	As 188.979†	-2.7	-4.5	-8.2260 µg/L	-8.2260 ppb	08:29:12
2	B 249.677†	346.0	48.9	2.0015 µg/L	2.0015 ppb	08:29:12
2	Ba 233.527†	-20.2	5.9	0.1466 µg/L	0.1466 ppb	08:29:12
2	Be 313.107†	-3332.2	295.4	0.1835 µg/L	0.1835 ppb	08:28:52
2	Cd 226.502†	-133.8	13.5	0.3464 µg/L	0.3464 ppb	08:29:12
2	Co 228.616†	-8.4	0.5	0.0247 µg/L	0.0247 ppb	08:29:12
2	Cr 267.716†	-34.7	14.2	0.2951 µg/L	0.2951 ppb	08:29:12
2	Cu 324.752†	2510.5	45.8	0.3065 µg/L	0.3065 ppb	08:28:52
2	Mn 257.610†	-213.0	53.4	0.1774 µg/L	0.1774 ppb	08:29:12
2	Mo 202.031†	5.6	10.4	1.0489 µg/L	1.0489 ppb	08:29:12
2	Ni 231.604†	306.8	1.8	0.0939 µg/L	0.0939 ppb	08:29:12
2	P 214.914†	27.3	0.5	0.9894 µg/L	0.9894 ppb	08:29:12
2	Pb 220.353†	86.6	-1.0	-0.2655 µg/L	-0.2655 ppb	08:29:12

2	S 181.975 Axial†	9.8	-7.7	-32.195 µg/L	-32.195 ppb	08:29:12
2	Sb 206.836†	27.0	3.1	2.9279 µg/L	2.9279 ppb	08:29:12
2	Se 196.026†	17.1	-1.4	-1.9269 µg/L	-1.9269 ppb	08:29:12
2	SiO2†	1326.6	24.8	5.0692 µg/L	5.0692 ppb	08:28:52
2	Si 251.611†	391.8	93.5	7.3102 µg/L	7.3102 ppb	08:29:12
2	Sn 189.927†	6.5	6.2	2.6590 µg/L	2.6590 ppb	08:29:12
2	Ti 334.940†	168.3	71.5	0.1652 µg/L	0.1652 ppb	08:28:52
2	Tl 190.801†	-24.3	-0.4	-0.4939 µg/L	-0.4939 ppb	08:29:12
2	U 409.014†	-8.5	80.7	6.8777 µg/L	6.8777 ppb	08:28:52
2	V 292.402†	-57.2	-11.0	-0.0920 µg/L	-0.0920 ppb	08:28:52
2	Zn 213.857†	490.3	22.2	0.5216 µg/L	0.5216 ppb	08:29:12
3	Sc RADIAL	56264.9	56264.9	98.2 %		08:27:48
3	Al 396.153Radial†	4.7	29.0	20.175 µg/L	20.175 ppb	08:27:48
3	Ca 317.933Radial†	195.9	12.5	10.864 µg/L	10.864 ppb	08:28:08
3	Fe 238.204 Radial†	17.7	4.4	34.425 µg/L	34.425 ppb	08:28:08
3	K 766.490 Radial†	147.1	-16.8	-11.534 µg/L	-11.534 ppb	08:27:48
3	Mg 279.077 IEC†	9.9	-0.8	-7.0181 µg/L	-7.0181 ppb	08:28:08
3	Na 589.592 Radial†	503.0	-1.8	-0.5524 µg/L	-0.5524 ppb	08:27:48
3	Sr 421.552†	34.6	9.8	0.0970 µg/L	0.0970 ppb	08:27:48
3	Sc 361.383	1979600.8	1979600.8	99.713 %		08:29:18
3	Y 371.029	1365446.9	1365446.9	100.08 %		08:29:18
3	Ag 328.068†	-517.5	42.0	0.3224 µg/L	0.3224 ppb	08:29:23
3	As 188.979†	0.4	-1.4	-2.6461 µg/L	-2.6461 ppb	08:29:43
3	B 249.677†	332.2	38.9	1.5864 µg/L	1.5864 ppb	08:29:43
3	Ba 233.527†	-30.1	-4.1	-0.1015 µg/L	-0.1015 ppb	08:29:43
3	Be 313.107†	-3521.9	68.4	0.0424 µg/L	0.0424 ppb	08:29:23
3	Cd 226.502†	-134.5	11.3	0.2906 µg/L	0.2906 ppb	08:29:43
3	Co 228.616†	-1.4	7.4	0.3454 µg/L	0.3454 ppb	08:29:43
3	Cr 267.716†	-39.3	9.2	0.1912 µg/L	0.1912 ppb	08:29:43
3	Cu 324.752†	2460.7	23.6	0.1606 µg/L	0.1606 ppb	08:29:23
3	Mn 257.610†	-211.4	52.6	0.1760 µg/L	0.1760 ppb	08:29:43
3	Mo 202.031†	-7.5	-2.7	-0.2704 µg/L	-0.2704 ppb	08:29:43
3	Ni 231.604†	307.3	5.7	0.2968 µg/L	0.2968 ppb	08:29:43
3	P 214.914†	24.2	-2.3	-4.7741 µg/L	-4.7741 ppb	08:29:43
3	Pb 220.353†	94.9	8.3	2.0574 µg/L	2.0574 ppb	08:29:43
3	S 181.975 Axial†	15.2	-2.2	-9.3167 µg/L	-9.3167 ppb	08:29:43
3	Sb 206.836†	24.1	0.5	0.4446 µg/L	0.4446 ppb	08:29:43
3	Se 196.026†	16.4	-1.9	-2.6823 µg/L	-2.6823 ppb	08:29:43
3	SiO2†	1352.5	65.5	13.369 µg/L	13.369 ppb	08:29:23
3	Si 251.611†	388.0	94.0	7.3462 µg/L	7.3462 ppb	08:29:43
3	Sn 189.927†	-4.1	-4.4	-1.9226 µg/L	-1.9226 ppb	08:29:43
3	Ti 334.940†	192.8	98.0	0.2269 µg/L	0.2269 ppb	08:29:23
3	Tl 190.801†	-24.3	-0.6	-0.7771 µg/L	-0.7771 ppb	08:29:43
3	U 409.014†	12.3	101.4	8.6479 µg/L	8.6479 ppb	08:29:23
3	V 292.402†	-25.8	19.8	0.2118 µg/L	0.2118 ppb	08:29:23
3	Zn 213.857†	481.8	19.1	0.4482 µg/L	0.4482 ppb	08:29:43

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1988487.1	100.16 %	0.586			0.58%
Sc RADIAL	56302.0	98.3 %	0.39			0.39%
Y 371.029	1371271.0	100.50 %	0.565			0.56%
Ag 328.068†	60.2	0.4578 µg/L	0.17429	0.4578 ppb	0.17429	38.07%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	18.5	12.917 µg/L	6.3441	12.917 ppb	6.3441	49.12%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.5	-4.5793 µg/L	3.16000	-4.5793 ppb	3.16000	69.01%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	44.3	1.8144 µg/L	0.21058	1.8144 ppb	0.21058	11.61%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	5.5	0.1355 µg/L	0.23175	0.1355 ppb	0.23175	170.99%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	192.8	0.1198 µg/L	0.07154	0.1198 ppb	0.07154	59.73%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	9.8	8.5203 µg/L	2.45009	8.5203 ppb	2.45009	28.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	8.7	0.2234 µg/L	0.16702	0.2234 ppb	0.16702	74.75%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	1.8	0.0856 µg/L	0.23533	0.0856 ppb	0.23533	274.92%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
	11.1	0.2318 µg/L	0.05554	0.2318 ppb	0.05554 23.96%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
	54.5	0.3634 µg/L	0.23634	0.3634 ppb	0.23634 65.04%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
	3.0	23.829 µg/L	13.8334	23.829 ppb	13.8334 58.05%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
	-3.6	-2.4768 µg/L	25.83895	-2.4768 ppb	25.83895 >999.9%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
	0.5	4.5698 µg/L	13.51568	4.5698 ppb	13.51568 295.76%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
	53.4	0.1765 µg/L	0.00084	0.1765 ppb	0.00084 0.48%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
	2.1	0.2161 µg/L	0.72458	0.2161 ppb	0.72458 335.25%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
	-16.1	-5.0024 µg/L	4.46280	-5.0024 ppb	4.46280 89.21%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
	3.3	0.1703 µg/L	0.11034	0.1703 ppb	0.11034 64.80%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
	-1.3	-2.6621 µg/L	3.17525	-2.6621 ppb	3.17525 119.27%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
	3.4	0.8557 µg/L	1.16354	0.8557 ppb	1.16354 135.97%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
	-3.3	-13.589 µg/L	16.8810	-13.589 ppb	16.8810 124.23%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
	-0.2	-0.1636 µg/L	3.43612	-0.1636 ppb	3.43612 >999.9%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
	-1.2	-1.6402 µg/L	1.21111	-1.6402 ppb	1.21111 73.84%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated			
	40.4	8.2550 µg/L	4.47329	8.2550 ppb	4.47329 54.19%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated			
	92.9	7.2568 µg/L	0.12491	7.2568 ppb	0.12491 1.72%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
	2.3	0.9884 µg/L	2.53013	0.9884 ppb	2.53013 255.98%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
	17.5	0.1725 µg/L	0.07097	0.1725 ppb	0.07097 41.14%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
	77.6	0.1791 µg/L	0.04267	0.1791 ppb	0.04267 23.83%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
	-1.2	-1.5900 µg/L	1.65922	-1.5900 ppb	1.65922 104.36%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
	86.7	7.3954 µg/L	1.09008	7.3954 ppb	1.09008 14.74%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
	-8.6	-0.0738 µg/L	0.27685	-0.0738 ppb	0.27685 375.27%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
	22.0	0.5164 µg/L	0.06574	0.5164 ppb	0.06574 12.73%
	QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 27

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/12/2010 08:54:44

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56649.6	56649.6	98.9 %			08:55:23
1	Al 396.153Radial†	7204.3	7308.0	5079.9 µg/L	5079.9 ppb	5079.9 ppb	08:55:23
1	Ca 317.933Radial†	5882.9	5760.9	5000.9 µg/L	5000.9 ppb	5000.9 ppb	08:55:43
1	Fe 238.204 Radial†	654.7	648.2	5132.0 µg/L	5132.0 ppb	5132.0 ppb	08:55:43
1	K 766.490 Radial†	7636.3	7554.0	5199.6 µg/L	5199.6 ppb	5199.6 ppb	08:55:23
1	Mg 279.077 IEC†	595.3	591.1	5237.6 µg/L	5237.6 ppb	5237.6 ppb	08:55:43
1	Na 589.592 Radial†	32438.2	32282.3	10045 µg/L	10045 ppb	10045 ppb	08:55:23
1	Sr 421.552†	50877.1	51413.1	507.35 µg/L	507.35 ppb	507.35 ppb	08:55:23
1	Sc 361.383	1977743.7	1977743.7	99.619 %			08:56:43
1	Y 371.029	1358624.1	1358624.1	99.577 %			08:56:43
1	Ag 328.068†	65536.7	66348.3	507.24 µg/L	507.24 ppb	507.24 ppb	08:56:49
1	As 188.979†	288.8	288.0	528.45 µg/L	528.45 ppb	528.45 ppb	08:57:09
1	B 249.677†	12482.1	12235.6	502.55 µg/L	502.55 ppb	502.55 ppb	08:56:49
1	Ba 233.527†	20582.8	20687.5	511.19 µg/L	511.19 ppb	511.19 ppb	08:56:49
1	Be 313.107†	813722.8	820434.3	509.62 µg/L	509.62 ppb	509.62 ppb	08:56:43
1	Cd 226.502†	19590.2	19811.2	514.44 µg/L	514.44 ppb	514.44 ppb	08:56:49
1	Co 228.616†	11018.5	11069.5	514.26 µg/L	514.26 ppb	514.26 ppb	08:56:49
1	Cr 267.716†	24656.1	24798.9	516.39 µg/L	516.39 ppb	516.39 ppb	08:56:49
1	Cu 324.752†	79312.0	77171.1	510.39 µg/L	510.39 ppb	510.39 ppb	08:56:49
1	Mn 257.610†	157233.2	158099.1	514.54 µg/L	514.54 ppb	514.54 ppb	08:56:43
1	Mo 202.031†	5203.4	5228.2	527.87 µg/L	527.87 ppb	527.87 ppb	08:57:09
1	Ni 231.604†	10240.0	9976.6	514.56 µg/L	514.56 ppb	514.56 ppb	08:56:49
1	P 214.914†	1319.7	1298.2	2559.2 µg/L	2559.2 ppb	2559.2 ppb	08:57:09
1	Pb 220.353†	2171.2	2092.6	524.48 µg/L	524.48 ppb	524.48 ppb	08:57:09
1	S 181.975 Axial†	264.9	248.5	1033.4 µg/L	1033.4 ppb	1033.4 ppb	08:57:09
1	Sb 206.836†	577.8	556.3	517.44 µg/L	517.44 ppb	517.44 ppb	08:57:09
1	Se 196.026†	376.2	359.3	523.98 µg/L	523.98 ppb	523.98 ppb	08:57:09
1	SiO2†	27853.2	26668.7	5447.0 µg/L	5447.0 ppb	5447.0 ppb	08:56:49
1	Si 251.611†	32748.6	32578.7	2546.0 µg/L	2546.0 ppb	2546.0 ppb	08:56:49
1	Sn 189.927†	1213.5	1217.8	527.12 µg/L	527.12 ppb	527.12 ppb	08:57:09
1	Ti 334.940†	218490.0	219230.0	505.90 µg/L	505.90 ppb	505.90 ppb	08:56:43
1	Tl 190.801†	368.9	394.1	526.44 µg/L	526.44 ppb	526.44 ppb	08:57:09
1	U 409.014†	5950.7	6062.6	516.26 µg/L	516.26 ppb	516.26 ppb	08:56:49
1	V 292.402†	50316.4	50554.4	517.39 µg/L	517.39 ppb	517.39 ppb	08:56:49
1	Zn 213.857†	22274.1	21895.2	512.53 µg/L	512.53 ppb	512.53 ppb	08:56:49
2	Sc RADIAL	56814.6	56814.6	99.2 %			08:55:49
2	Al 396.153Radial†	7122.2	7204.1	5007.6 µg/L	5007.6 ppb	5007.6 ppb	08:55:49
2	Ca 317.933Radial†	5908.8	5769.8	5008.6 µg/L	5008.6 ppb	5008.6 ppb	08:56:09
2	Fe 238.204 Radial†	659.7	651.3	5156.0 µg/L	5156.0 ppb	5156.0 ppb	08:56:09
2	K 766.490 Radial†	7529.5	7424.0	5110.0 µg/L	5110.0 ppb	5110.0 ppb	08:55:49
2	Mg 279.077 IEC†	596.5	590.5	5232.9 µg/L	5232.9 ppb	5232.9 ppb	08:56:09
2	Na 589.592 Radial†	32089.0	31835.1	9905.9 µg/L	9905.9 ppb	9905.9 ppb	08:55:49
2	Sr 421.552†	50280.3	50662.0	499.94 µg/L	499.94 ppb	499.94 ppb	08:55:49
2	Sc 361.383	1970345.5	1970345.5	99.246 %			08:57:16
2	Y 371.029	1353789.2	1353789.2	99.222 %			08:57:16
2	Ag 328.068†	64740.5	65793.0	503.00 µg/L	503.00 ppb	503.00 ppb	08:57:21
2	As 188.979†	285.4	285.7	524.16 µg/L	524.16 ppb	524.16 ppb	08:57:41
2	B 249.677†	12338.9	12138.3	498.52 µg/L	498.52 ppb	498.52 ppb	08:57:21
2	Ba 233.527†	20337.2	20517.6	506.99 µg/L	506.99 ppb	506.99 ppb	08:57:21
2	Be 313.107†	802376.1	812068.4	504.42 µg/L	504.42 ppb	504.42 ppb	08:57:16
2	Cd 226.502†	19294.5	19587.1	508.61 µg/L	508.61 ppb	508.61 ppb	08:57:21
2	Co 228.616†	10836.9	10928.1	507.68 µg/L	507.68 ppb	507.68 ppb	08:57:21
2	Cr 267.716†	24311.5	24544.7	511.10 µg/L	511.10 ppb	511.10 ppb	08:57:21
2	Cu 324.752†	78416.2	76567.4	506.40 µg/L	506.40 ppb	506.40 ppb	08:57:21
2	Mn 257.610†	155054.0	156495.9	509.33 µg/L	509.33 ppb	509.33 ppb	08:57:16
2	Mo 202.031†	5131.7	5175.6	522.56 µg/L	522.56 ppb	522.56 ppb	08:57:41
2	Ni 231.604†	10094.8	9869.0	509.02 µg/L	509.02 ppb	509.02 ppb	08:57:21
2	P 214.914†	1300.0	1283.2	2529.5 µg/L	2529.5 ppb	2529.5 ppb	08:57:41
2	Pb 220.353†	2151.2	2080.7	521.50 µg/L	521.50 ppb	521.50 ppb	08:57:41



2	S 181.975 Axial†	263.1	247.6	1029.9 µg/L	1029.9 ppb	08:57:41
2	Sb 206.836†	576.3	557.0	518.01 µg/L	518.01 ppb	08:57:41
2	Se 196.026†	375.1	359.6	524.45 µg/L	524.45 ppb	08:57:41
2	SiO2†	27571.4	26489.8	5410.5 µg/L	5410.5 ppb	08:57:21
2	Si 251.611†	32429.3	32380.4	2530.5 µg/L	2530.5 ppb	08:57:21
2	Sn 189.927†	1200.8	1209.6	523.55 µg/L	523.55 ppb	08:57:41
2	Ti 334.940†	215558.8	217100.1	500.98 µg/L	500.98 ppb	08:57:16
2	Tl 190.801†	361.2	387.7	517.99 µg/L	517.99 ppb	08:57:41
2	U 409.014†	5853.2	5986.8	509.79 µg/L	509.79 ppb	08:57:21
2	V 292.402†	49707.8	50130.9	513.05 µg/L	513.05 ppb	08:57:21
2	Zn 213.857†	21926.7	21629.1	506.29 µg/L	506.29 ppb	08:57:21
3	Sc RADIAL	56615.9	56615.9	98.8 %		08:56:14
3	Al 396.153Radial†	7139.7	7247.0	5038.8 µg/L	5038.8 ppb	08:56:14
3	Ca 317.933Radial†	5855.4	5736.7	4979.8 µg/L	4979.8 ppb	08:56:34
3	Fe 238.204 Radial†	653.5	647.4	5124.6 µg/L	5124.6 ppb	08:56:34
3	K 766.490 Radial†	7520.5	7441.5	5122.1 µg/L	5122.1 ppb	08:56:14
3	Mg 279.077 IEC†	590.5	586.5	5196.3 µg/L	5196.3 ppb	08:56:34
3	Na 589.592 Radial†	32292.7	32154.6	10005 µg/L	10005 ppb	08:56:14
3	Sr 421.552†	50663.7	51227.7	505.52 µg/L	505.52 ppb	08:56:14
3	Sc 361.383	1984031.3	1984031.3	99.936 %		08:57:48
3	Y 371.029	1361618.5	1361618.5	99.796 %		08:57:48
3	Ag 328.068†	62910.1	63511.6	485.51 µg/L	485.51 ppb	08:57:53
3	As 188.979†	257.5	255.9	469.45 µg/L	469.45 ppb	08:58:14
3	B 249.677†	11995.4	11708.8	480.78 µg/L	480.78 ppb	08:57:53
3	Ba 233.527†	19548.9	19587.5	484.00 µg/L	484.00 ppb	08:57:53
3	Be 313.107†	783926.2	788029.9	489.49 µg/L	489.49 ppb	08:57:48
3	Cd 226.502†	18567.0	18725.1	486.20 µg/L	486.20 ppb	08:57:53
3	Co 228.616†	10390.4	10405.9	483.37 µg/L	483.37 ppb	08:57:53
3	Cr 267.716†	22907.7	22971.0	478.33 µg/L	478.33 ppb	08:57:53
3	Cu 324.752†	75013.1	72617.1	480.31 µg/L	480.31 ppb	08:57:53
3	Mn 257.610†	151942.2	152304.4	495.70 µg/L	495.70 ppb	08:57:48
3	Mo 202.031†	4505.6	4513.3	455.72 µg/L	455.72 ppb	08:58:14
3	Ni 231.604†	9688.1	9391.8	484.41 µg/L	484.41 ppb	08:57:53
3	P 214.914†	1174.7	1148.9	2261.2 µg/L	2261.2 ppb	08:58:14
3	Pb 220.353†	1956.1	1870.4	468.71 µg/L	468.71 ppb	08:58:14
3	S 181.975 Axial†	235.8	218.5	908.67 µg/L	908.67 ppb	08:58:14
3	Sb 206.836†	514.5	491.2	456.38 µg/L	456.38 ppb	08:58:14
3	Se 196.026†	339.9	321.7	470.07 µg/L	470.07 ppb	08:58:14
3	SiO2†	26690.9	25417.1	5191.4 µg/L	5191.4 ppb	08:57:53
3	Si 251.611†	31284.4	31009.4	2423.4 µg/L	2423.4 ppb	08:57:53
3	Sn 189.927†	1034.5	1034.8	447.92 µg/L	447.92 ppb	08:58:14
3	Ti 334.940†	210238.8	210278.4	485.23 µg/L	485.23 ppb	08:57:48
3	Tl 190.801†	333.3	357.3	477.64 µg/L	477.64 ppb	08:58:14
3	U 409.014†	5571.6	5664.3	482.27 µg/L	482.27 ppb	08:57:53
3	V 292.402†	47399.4	47475.5	485.59 µg/L	485.59 ppb	08:57:53
3	Zn 213.857†	21012.3	20561.7	481.28 µg/L	481.28 ppb	08:57:53

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1977373.5	99.600 %	0.3451			0.35%
Sc RADIAL	56693.4	99.0 %	0.19			0.19%
Y 371.029	1358010.6	99.532 %	0.2895			0.29%
Ag 328.068†	65217.6	498.58 µg/L	11.521	498.58 ppb	11.521	2.31%
QC value within limits for Ag 328.068 Recovery = 99.72%						
Al 396.153Radial†	7253.1	5042.1 µg/L	36.25	5042.1 ppb	36.25	0.72%
QC value within limits for Al 396.153Radial Recovery = 100.84%						
As 188.979†	276.5	507.35 µg/L	32.891	507.35 ppb	32.891	6.48%
QC value within limits for As 188.979 Recovery = 101.47%						
B 249.677†	12027.6	493.95 µg/L	11.583	493.95 ppb	11.583	2.35%
QC value within limits for B 249.677 Recovery = 98.79%						
Ba 233.527†	20264.2	500.73 µg/L	14.637	500.73 ppb	14.637	2.92%
QC value within limits for Ba 233.527 Recovery = 100.15%						
Be 313.107†	806844.2	501.18 µg/L	10.449	501.18 ppb	10.449	2.08%
QC value within limits for Be 313.107 Recovery = 100.24%						
Ca 317.933Radial†	5755.8	4996.4 µg/L	14.89	4996.4 ppb	14.89	0.30%
QC value within limits for Ca 317.933Radial Recovery = 99.93%						
Cd 226.502†	19374.5	503.09 µg/L	14.908	503.09 ppb	14.908	2.96%
QC value within limits for Cd 226.502 Recovery = 100.62%						
Co 228.616†	10801.2	501.77 µg/L	16.270	501.77 ppb	16.270	3.24%

QC value within limits for Co 228.616	Recovery = 100.35%				
Cr 267.716†	24104.9	501.94 µg/L	20.616	501.94 ppb	20.616 4.11%
QC value within limits for Cr 267.716	Recovery = 100.39%				
Cu 324.752†	75451.9	499.03 µg/L	16.337	499.03 ppb	16.337 3.27%
QC value within limits for Cu 324.752	Recovery = 99.81%				
Fe 238.204 Radial†	649.0	5137.5 µg/L	16.39	5137.5 ppb	16.39 0.32%
QC value within limits for Fe 238.204 Radial	Recovery = 102.75%				
K 766.490 Radial†	7473.2	5143.9 µg/L	48.58	5143.9 ppb	48.58 0.94%
QC value within limits for K 766.490 Radial	Recovery = 102.88%				
Mg 279.077 IEC†	589.4	5222.3 µg/L	22.60	5222.3 ppb	22.60 0.43%
QC value within limits for Mg 279.077 IEC	Recovery = 104.45%				
Mn 257.610†	155633.1	506.52 µg/L	9.729	506.52 ppb	9.729 1.92%
QC value within limits for Mn 257.610	Recovery = 101.30%				
Mo 202.031†	4972.3	502.05 µg/L	40.212	502.05 ppb	40.212 8.01%
QC value within limits for Mo 202.031	Recovery = 100.41%				
Na 589.592 Radial†	32090.6	9985.5 µg/L	71.68	9985.5 ppb	71.68 0.72%
QC value within limits for Na 589.592 Radial	Recovery = 99.85%				
Ni 231.604†	9745.8	502.66 µg/L	16.051	502.66 ppb	16.051 3.19%
QC value within limits for Ni 231.604	Recovery = 100.53%				
P 214.914†	1243.4	2450.0 µg/L	164.12	2450.0 ppb	164.12 6.70%
QC value within limits for P 214.914	Recovery = 98.00%				
Pb 220.353†	2014.6	504.90 µg/L	31.375	504.90 ppb	31.375 6.21%
QC value within limits for Pb 220.353	Recovery = 100.98%				
S 181.975 Axial†	238.2	990.64 µg/L	71.013	990.64 ppb	71.013 7.17%
QC value within limits for S 181.975 Axial	Recovery = 99.06%				
Sb 206.836†	534.8	497.27 µg/L	35.420	497.27 ppb	35.420 7.12%
QC value within limits for Sb 206.836	Recovery = 99.45%				
Se 196.026†	346.9	506.17 µg/L	31.264	506.17 ppb	31.264 6.18%
QC value within limits for Se 196.026	Recovery = 101.23%				
SiO2†	26191.9	5349.6 µg/L	138.26	5349.6 ppb	138.26 2.58%
QC value within limits for SiO2	Recovery = 100.04%				
Si 251.611†	31989.5	2500.0 µg/L	66.78	2500.0 ppb	66.78 2.67%
QC value within limits for Si 251.611	Recovery = 100.00%				
Sn 189.927†	1154.1	499.53 µg/L	44.727	499.53 ppb	44.727 8.95%
QC value within limits for Sn 189.927	Recovery = 99.91%				
Sr 421.552†	51100.9	504.27 µg/L	3.861	504.27 ppb	3.861 0.77%
QC value within limits for Sr 421.552	Recovery = 100.85%				
Ti 334.940†	215536.2	497.37 µg/L	10.797	497.37 ppb	10.797 2.17%
QC value within limits for Ti 334.940	Recovery = 99.47%				
Tl 190.801†	379.7	507.35 µg/L	26.082	507.35 ppb	26.082 5.14%
QC value within limits for Tl 190.801	Recovery = 101.47%				
U 409.014†	5904.6	502.77 µg/L	18.045	502.77 ppb	18.045 3.59%
QC value within limits for U 409.014	Recovery = 100.55%				
V 292.402†	49386.9	505.35 µg/L	17.245	505.35 ppb	17.245 3.41%
QC value within limits for V 292.402	Recovery = 101.07%				
Zn 213.857†	21362.0	500.03 µg/L	16.538	500.03 ppb	16.538 3.31%
QC value within limits for Zn 213.857	Recovery = 100.01%				

All analyte(s) passed QC.

Sequence No.: 28

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/12/2010 08:58:22

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56807.7	56807.7	99.2 %		08:58:55
1	Al 396.153Radial†	-11.3	12.8	8.9247 µg/L	8.9247 ppb	08:58:55
1	Ca 317.933Radial†	191.2	5.9	5.0919 µg/L	5.0919 ppb	08:59:15
1	Fe 238.204 Radial†	17.9	4.3	34.085 µg/L	34.085 ppb	08:59:15
1	K 766.490 Radial†	138.3	-27.0	-18.607 µg/L	-18.607 ppb	08:58:55
1	Mg 279.077 IEC†	13.8	3.1	27.671 µg/L	27.671 ppb	08:59:15
1	Na 589.592 Radial†	475.9	-34.0	-10.576 µg/L	-10.576 ppb	08:58:55
1	Sr 421.552†	54.3	29.3	0.2893 µg/L	0.2893 ppb	08:58:55
1	Sc 361.383	1979652.8	1979652.8	99.715 %		09:00:14
1	Y 371.029	1363255.7	1363255.7	99.916 %		09:00:14
1	Ag 328.068†	-485.4	74.3	0.5635 µg/L	0.5635 ppb	09:00:19
1	As 188.979†	-0.8	-2.6	-4.8284 µg/L	-4.8284 ppb	09:00:39
1	B 249.677†	327.4	34.1	1.3868 µg/L	1.3868 ppb	09:00:39
1	Ba 233.527†	-20.9	5.1	0.1245 µg/L	0.1245 ppb	09:00:39
1	Be 313.107†	-3448.6	141.9	0.0881 µg/L	0.0881 ppb	09:00:19
1	Cd 226.502†	-140.6	5.2	0.1301 µg/L	0.1301 ppb	09:00:39
1	Co 228.616†	-15.5	-6.6	-0.3087 µg/L	-0.3087 ppb	09:00:39
1	Cr 267.716†	-43.7	4.8	0.0990 µg/L	0.0990 ppb	09:00:19
1	Cu 324.752†	2559.9	123.0	0.8170 µg/L	0.8170 ppb	09:00:19
1	Mn 257.610†	-192.6	71.5	0.2358 µg/L	0.2358 ppb	09:00:39
1	Mo 202.031†	-4.6	0.2	0.0206 µg/L	0.0206 ppb	09:00:39
1	Ni 231.604†	299.2	-2.4	-0.1231 µg/L	-0.1231 ppb	09:00:39
1	P 214.914†	26.7	0.2	0.2955 µg/L	0.2955 ppb	09:00:39
1	Pb 220.353†	89.9	3.3	0.8181 µg/L	0.8181 ppb	09:00:39
1	S 181.975 Axial†	16.1	-1.3	-5.5235 µg/L	-5.5235 ppb	09:00:39
1	Sb 206.836†	27.1	3.5	3.2516 µg/L	3.2516 ppb	09:00:39
1	Se 196.026†	17.2	-1.1	-1.5570 µg/L	-1.5570 ppb	09:00:39
1	SiO2†	1324.3	37.1	7.5852 µg/L	7.5852 ppb	09:00:19
1	Si 251.611†	356.4	62.3	4.8691 µg/L	4.8691 ppb	09:00:39
1	Sn 189.927†	-2.2	-2.5	-1.0769 µg/L	-1.0769 ppb	09:00:39
1	Ti 334.940†	201.5	106.7	0.2443 µg/L	0.2443 ppb	09:00:19
1	Tl 190.801†	-21.0	2.7	3.5816 µg/L	3.5816 ppb	09:00:39
1	U 409.014†	-68.0	20.9	1.7762 µg/L	1.7762 ppb	09:00:19
1	V 292.402†	-82.2	-36.7	-0.3651 µg/L	-0.3651 ppb	09:00:19
1	Zn 213.857†	491.4	28.8	0.6748 µg/L	0.6748 ppb	09:00:39
2	Sc RADIAL	56940.4	56940.4	99.4 %		08:59:20
2	Al 396.153Radial†	-33.4	-9.4	-6.5730 µg/L	-6.5730 ppb	08:59:20
2	Ca 317.933Radial†	195.9	10.2	8.8700 µg/L	8.8700 ppb	08:59:41
2	Fe 238.204 Radial†	15.0	1.4	11.324 µg/L	11.324 ppb	08:59:41
2	K 766.490 Radial†	123.8	-41.9	-28.869 µg/L	-28.869 ppb	08:59:20
2	Mg 279.077 IEC†	14.9	4.2	36.806 µg/L	36.806 ppb	08:59:41
2	Na 589.592 Radial†	503.6	-7.2	-2.2431 µg/L	-2.2431 ppb	08:59:20
2	Sr 421.552†	38.7	13.5	0.1336 µg/L	0.1336 ppb	08:59:20
2	Sc 361.383	1987536.9	1987536.9	100.11 %		09:00:45
2	Y 371.029	1368350.0	1368350.0	100.29 %		09:00:45
2	Ag 328.068†	-459.5	102.1	0.7717 µg/L	0.7717 ppb	09:00:50
2	As 188.979†	-0.5	-2.3	-4.2327 µg/L	-4.2327 ppb	09:01:11
2	B 249.677†	326.7	32.1	1.3149 µg/L	1.3149 ppb	09:01:11
2	Ba 233.527†	-23.6	2.5	0.0599 µg/L	0.0599 ppb	09:01:11
2	Be 313.107†	-3425.2	179.0	0.1111 µg/L	0.1111 ppb	09:00:50
2	Cd 226.502†	-150.9	-4.6	-0.1196 µg/L	-0.1196 ppb	09:01:11
2	Co 228.616†	-5.5	3.4	0.1586 µg/L	0.1586 ppb	09:01:11
2	Cr 267.716†	-66.4	-17.8	-0.3711 µg/L	-0.3711 ppb	09:00:50
2	Cu 324.752†	2531.3	84.3	0.5585 µg/L	0.5585 ppb	09:00:50
2	Mn 257.610†	-198.5	66.3	0.2158 µg/L	0.2158 ppb	09:01:11
2	Mo 202.031†	-1.7	3.1	0.3171 µg/L	0.3171 ppb	09:01:11
2	Ni 231.604†	300.1	-2.7	-0.1419 µg/L	-0.1419 ppb	09:01:11
2	P 214.914†	23.6	-3.1	-6.2264 µg/L	-6.2264 ppb	09:01:11
2	Pb 220.353†	95.5	8.5	2.1266 µg/L	2.1266 ppb	09:01:11

2	S 181.975 Axial†	16.2	-1.3	-5.2718 µg/L	-5.2718 ppb	09:01:11
2	Sb 206.836†	20.1	-3.6	-3.3121 µg/L	-3.3121 ppb	09:01:11
2	Se 196.026†	8.8	-9.6	-13.732 µg/L	-13.732 ppb	09:01:11
2	SiO2†	1320.1	27.7	5.6550 µg/L	5.6550 ppb	09:00:50
2	Si 251.611†	351.4	55.9	4.3705 µg/L	4.3705 ppb	09:01:11
2	Sn 189.927†	-1.5	-1.8	-0.7595 µg/L	-0.7595 ppb	09:01:11
2	Ti 334.940†	232.2	136.6	0.3126 µg/L	0.3126 ppb	09:00:50
2	Tl 190.801†	-24.5	-0.8	-0.9842 µg/L	-0.9842 ppb	09:01:11
2	U 409.014†	-26.5	62.6	5.3394 µg/L	5.3394 ppb	09:00:50
2	V 292.402†	-101.5	-55.7	-0.5549 µg/L	-0.5549 ppb	09:00:50
2	Zn 213.857†	490.6	26.0	0.6102 µg/L	0.6102 ppb	09:01:11
3	Sc RADIAL	56733.9	56733.9	99.1 %		08:59:46
3	Al 396.153Radial†	-28.1	-4.1	-2.8622 µg/L	-2.8622 ppb	08:59:46
3	Ca 317.933Radial†	192.3	7.3	6.3416 µg/L	6.3416 ppb	09:00:06
3	Fe 238.204 Radial†	15.1	1.6	12.531 µg/L	12.531 ppb	09:00:06
3	K 766.490 Radial†	180.0	15.2	10.479 µg/L	10.479 ppb	08:59:46
3	Mg 279.077 IEC†	9.7	-1.1	-9.5322 µg/L	-9.5322 ppb	09:00:06
3	Na 589.592 Radial†	527.4	18.7	5.8066 µg/L	5.8066 ppb	08:59:46
3	Sr 421.552†	40.2	15.2	0.1500 µg/L	0.1500 ppb	08:59:46
3	Sc 361.383	1987273.6	1987273.6	100.10 %		09:01:16
3	Y 371.029	1369838.2	1369838.2	100.40 %		09:01:16
3	Ag 328.068†	-490.1	71.4	0.5432 µg/L	0.5432 ppb	09:01:22
3	As 188.979†	-0.7	-2.6	-4.7276 µg/L	-4.7276 ppb	09:01:42
3	B 249.677†	313.1	18.6	0.7586 µg/L	0.7586 ppb	09:01:42
3	Ba 233.527†	-24.3	1.8	0.0445 µg/L	0.0445 ppb	09:01:42
3	Be 313.107†	-3298.5	305.1	0.1896 µg/L	0.1896 ppb	09:01:22
3	Cd 226.502†	-135.8	10.5	0.2719 µg/L	0.2719 ppb	09:01:42
3	Co 228.616†	-6.9	2.0	0.0915 µg/L	0.0915 ppb	09:01:42
3	Cr 267.716†	-48.1	0.5	0.0108 µg/L	0.0108 ppb	09:01:22
3	Cu 324.752†	2526.9	80.3	0.5318 µg/L	0.5318 ppb	09:01:22
3	Mn 257.610†	-170.4	94.4	0.3091 µg/L	0.3091 ppb	09:01:42
3	Mo 202.031†	-8.1	-3.2	-0.3262 µg/L	-0.3262 ppb	09:01:42
3	Ni 231.604†	310.8	8.0	0.4109 µg/L	0.4109 ppb	09:01:42
3	P 214.914†	20.7	-5.9	-11.933 µg/L	-11.933 ppb	09:01:42
3	Pb 220.353†	86.4	-0.6	-0.1525 µg/L	-0.1525 ppb	09:01:42
3	S 181.975 Axial†	16.4	-1.1	-4.5152 µg/L	-4.5152 ppb	09:01:42
3	Sb 206.836†	26.3	2.6	2.3573 µg/L	2.3573 ppb	09:01:42
3	Se 196.026†	6.9	-11.5	-16.425 µg/L	-16.425 ppb	09:01:42
3	SiO2†	1303.9	11.7	2.3827 µg/L	2.3827 ppb	09:01:22
3	Si 251.611†	367.9	72.5	5.6653 µg/L	5.6653 ppb	09:01:42
3	Sn 189.927†	-1.6	-1.9	-0.8258 µg/L	-0.8258 ppb	09:01:42
3	Ti 334.940†	153.1	57.6	0.1339 µg/L	0.1339 ppb	09:01:22
3	Tl 190.801†	-21.7	2.1	2.7873 µg/L	2.7873 ppb	09:01:42
3	U 409.014†	-76.7	12.5	1.0659 µg/L	1.0659 ppb	09:01:22
3	V 292.402†	-42.7	3.0	0.0303 µg/L	0.0303 ppb	09:01:22
3	Zn 213.857†	482.2	17.7	0.4137 µg/L	0.4137 ppb	09:01:42

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1984821.1	99.976 %	0.2255			0.23%
Sc RADIAL	56827.3	99.2 %	0.18			0.18%
Y 371.029	1367148.0	100.20 %	0.253			0.25%
Ag 328.068†	82.6	0.6261 µg/L	0.12649	0.6261 ppb	0.12649	20.20%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-0.2	-0.1702 µg/L	8.09192	-0.1702 ppb	8.09192	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.5	-4.5962 µg/L	0.31885	-4.5962 ppb	0.31885	6.94%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	28.2	1.1534 µg/L	0.34383	1.1534 ppb	0.34383	29.81%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	3.1	0.0763 µg/L	0.04245	0.0763 ppb	0.04245	55.63%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	208.7	0.1296 µg/L	0.05319	0.1296 ppb	0.05319	41.04%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	7.8	6.7679 µg/L	1.92479	6.7679 ppb	1.92479	28.44%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	3.7	0.0941 µg/L	0.19823	0.0941 ppb	0.19823	210.57%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-0.4	-0.0195 µg/L	0.25261	-0.0195 ppb	0.25261	>999.9%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
	-4.2	-0.0871 µg/L	0.24989	-0.0871 ppb	0.24989 286.83%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
	95.9	0.6358 µg/L	0.15751	0.6358 ppb	0.15751 24.78%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
	2.4	19.313 µg/L	12.8069	19.313 ppb	12.8069 66.31%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
	-17.9	-12.332 µg/L	20.4111	-12.332 ppb	20.4111 165.51%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
	2.1	18.315 µg/L	24.5450	18.315 ppb	24.5450 134.02%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
	77.4	0.2536 µg/L	0.04913	0.2536 ppb	0.04913 19.38%
Mo 202.031†	QC value within limits for Mn 257.610 Radial	Recovery = Not calculated			
	0.0	0.0039 µg/L	0.32198	0.0039 ppb	0.32198 >999.9%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
	-7.5	-2.3374 µg/L	8.19155	-2.3374 ppb	8.19155 350.45%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
	0.9	0.0486 µg/L	0.31390	0.0486 ppb	0.31390 645.43%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
	-2.9	-5.9546 µg/L	6.11877	-5.9546 ppb	6.11877 102.76%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
	3.7	0.9307 µg/L	1.14373	0.9307 ppb	1.14373 122.89%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
	-1.2	-5.1035 µg/L	0.52480	-5.1035 ppb	0.52480 10.28%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
	0.8	0.7656 µg/L	3.55957	0.7656 ppb	3.55957 464.94%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
	-7.4	-10.571 µg/L	7.9219	-10.571 ppb	7.9219 74.94%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated			
	25.5	5.2076 µg/L	2.62998	5.2076 ppb	2.62998 50.50%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated			
	63.6	4.9683 µg/L	0.65307	4.9683 ppb	0.65307 13.14%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
	-2.1	-0.8874 µg/L	0.16743	-0.8874 ppb	0.16743 18.87%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
	19.4	0.1910 µg/L	0.08555	0.1910 ppb	0.08555 44.80%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
	100.3	0.2303 µg/L	0.09017	0.2303 ppb	0.09017 39.16%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
	1.4	1.7949 µg/L	2.43931	1.7949 ppb	2.43931 135.90%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
	32.0	2.7271 µg/L	2.28995	2.7271 ppb	2.28995 83.97%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
	-29.8	-0.2965 µg/L	0.29859	-0.2965 ppb	0.29859 100.69%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
	24.2	0.5662 µg/L	0.13599	0.5662 ppb	0.13599 24.02%
	QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 37  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/12/2010 09:30:04  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56702.1	56702.1	99.0 %		09:30:41
1	Al 396.153Radial†	7072.5	7168.1	4982.6 µg/L	4982.6 ppb	09:30:41
1	Ca 317.933Radial†	5685.2	5555.7	4822.7 µg/L	4822.7 ppb	09:31:01
1	Fe 238.204 Radial†	638.6	631.4	4998.7 µg/L	4998.7 ppb	09:31:01
1	K 766.490 Radial†	7430.5	7339.0	5051.5 µg/L	5051.5 ppb	09:30:41
1	Mg 279.077 IEC†	583.3	578.3	5124.9 µg/L	5124.9 ppb	09:31:01
1	Na 589.592 Radial†	31971.9	31781.0	9889.1 µg/L	9889.1 ppb	09:30:41
1	Sr 421.552†	50025.8	50505.5	498.39 µg/L	498.39 ppb	09:30:41
1	Sc 361.383	1956726.4	1956726.4	98.560 %		09:32:01
1	Y 371.029	1341261.3	1341261.3	98.304 %		09:32:01
1	Ag 328.068†	63998.1	65493.9	500.71 µg/L	500.71 ppb	09:32:06
1	As 188.979†	277.6	279.8	513.29 µg/L	513.29 ppb	09:32:27
1	B 249.677†	12205.3	12089.3	496.58 µg/L	496.58 ppb	09:32:06
1	Ba 233.527†	20127.3	20447.3	505.26 µg/L	505.26 ppb	09:32:06
1	Be 313.107†	792042.6	807211.1	501.41 µg/L	501.41 ppb	09:32:01
1	Cd 226.502†	19011.2	19435.1	504.68 µg/L	504.68 ppb	09:32:06
1	Co 228.616†	10736.9	10902.6	506.50 µg/L	506.50 ppb	09:32:06
1	Cr 267.716†	23985.4	24384.2	507.76 µg/L	507.76 ppb	09:32:06
1	Cu 324.752†	77388.9	76075.0	503.13 µg/L	503.13 ppb	09:32:06
1	Mn 257.610†	153440.1	155945.8	507.52 µg/L	507.52 ppb	09:32:01
1	Mo 202.031†	5077.3	5156.3	520.61 µg/L	520.61 ppb	09:32:27
1	Ni 231.604†	9964.4	9807.4	505.83 µg/L	505.83 ppb	09:32:06
1	P 214.914†	1287.0	1279.2	2521.8 µg/L	2521.8 ppb	09:32:27
1	Pb 220.353†	2119.5	2063.5	517.20 µg/L	517.20 ppb	09:32:27
1	S 181.975 Axial†	259.2	245.5	1021.1 µg/L	1021.1 ppb	09:32:27
1	Sb 206.836†	575.2	559.9	520.77 µg/L	520.77 ppb	09:32:27
1	Se 196.026†	369.2	356.2	519.37 µg/L	519.37 ppb	09:32:27
1	SiO2†	27213.4	26320.0	5375.8 µg/L	5375.8 ppb	09:32:06
1	Si 251.611†	31977.9	32149.9	2512.5 µg/L	2512.5 ppb	09:32:06
1	Sn 189.927†	1184.2	1201.2	519.94 µg/L	519.94 ppb	09:32:27
1	Ti 334.940†	213040.2	216056.4	498.58 µg/L	498.58 ppb	09:32:01
1	Tl 190.801†	353.2	382.1	510.60 µg/L	510.60 ppb	09:32:27
1	U 409.014†	5832.5	6006.8	511.52 µg/L	511.52 ppb	09:32:06
1	V 292.402†	49165.2	49928.9	510.97 µg/L	510.97 ppb	09:32:06
1	Zn 213.857†	21686.5	21539.2	504.20 µg/L	504.20 ppb	09:32:06
2	Sc RADIAL	56676.7	56676.7	99.0 %		09:31:07
2	Al 396.153Radial†	7025.8	7124.1	4952.0 µg/L	4952.0 ppb	09:31:07
2	Ca 317.933Radial†	5683.7	5556.8	4823.6 µg/L	4823.6 ppb	09:31:27
2	Fe 238.204 Radial†	636.5	629.5	4983.5 µg/L	4983.5 ppb	09:31:27
2	K 766.490 Radial†	7427.8	7339.6	5052.0 µg/L	5052.0 ppb	09:31:07
2	Mg 279.077 IEC†	585.1	580.5	5143.9 µg/L	5143.9 ppb	09:31:27
2	Na 589.592 Radial†	31860.5	31682.8	9858.6 µg/L	9858.6 ppb	09:31:07
2	Sr 421.552†	49875.2	50376.0	497.11 µg/L	497.11 ppb	09:31:07
2	Sc 361.383	1973658.4	1973658.4	99.413 %		09:32:33
2	Y 371.029	1352621.0	1352621.0	99.137 %		09:32:33
2	Ag 328.068†	63766.5	64703.8	494.67 µg/L	494.67 ppb	09:32:39
2	As 188.979†	279.2	279.0	511.91 µg/L	511.91 ppb	09:32:59
2	B 249.677†	12146.1	11923.5	489.74 µg/L	489.74 ppb	09:32:39
2	Ba 233.527†	20113.3	20258.0	500.58 µg/L	500.58 ppb	09:32:39
2	Be 313.107†	799253.7	807570.6	501.63 µg/L	501.63 ppb	09:32:33
2	Cd 226.502†	19053.6	19312.2	501.49 µg/L	501.49 ppb	09:32:39
2	Co 228.616†	10758.0	10830.3	503.14 µg/L	503.14 ppb	09:32:39
2	Cr 267.716†	23965.6	24155.6	502.99 µg/L	502.99 ppb	09:32:39
2	Cu 324.752†	77141.4	75152.4	497.04 µg/L	497.04 ppb	09:32:39
2	Mn 257.610†	154556.9	155733.6	506.83 µg/L	506.83 ppb	09:32:33
2	Mo 202.031†	5065.4	5100.1	514.94 µg/L	514.94 ppb	09:32:59
2	Ni 231.604†	10023.0	9779.7	504.41 µg/L	504.41 ppb	09:32:39
2	P 214.914†	1289.9	1270.9	2505.7 µg/L	2505.7 ppb	09:32:59
2	Pb 220.353†	2115.8	2041.4	511.66 µg/L	511.66 ppb	09:32:59

2	S 181.975 Axial†	254.8	238.9	993.64 µg/L	993.64 ppb	09:32:59
2	Sb 206.836†	570.1	549.8	511.36 µg/L	511.36 ppb	09:32:59
2	Se 196.026†	369.4	353.2	515.01 µg/L	515.01 ppb	09:32:59
2	SiO2†	27226.9	26096.6	5330.1 µg/L	5330.1 ppb	09:32:39
2	Si 251.611†	31950.0	31843.4	2488.6 µg/L	2488.6 ppb	09:32:39
2	Sn 189.927†	1183.3	1190.0	515.07 µg/L	515.07 ppb	09:32:59
2	Ti 334.940†	215143.0	216317.3	499.18 µg/L	499.18 ppb	09:32:33
2	Tl 190.801†	362.0	387.9	518.15 µg/L	518.15 ppb	09:32:59
2	U 409.014†	5833.1	5956.6	507.24 µg/L	507.24 ppb	09:32:39
2	V 292.402†	48978.1	49312.9	504.69 µg/L	504.69 ppb	09:32:39
2	Zn 213.857†	21627.4	21291.0	498.37 µg/L	498.37 ppb	09:32:39
3	Sc RADIAL	56519.3	56519.3	98.7 %		09:31:32
3	Al 396.153Radial†	7016.8	7134.8	4960.7 µg/L	4960.7 ppb	09:31:32
3	Ca 317.933Radial†	5682.4	5571.5	4836.4 µg/L	4836.4 ppb	09:31:52
3	Fe 238.204 Radial†	637.3	632.1	5003.9 µg/L	5003.9 ppb	09:31:52
3	K 766.490 Radial†	7467.3	7400.6	5094.0 µg/L	5094.0 ppb	09:31:32
3	Mg 279.077 IEC†	578.8	575.7	5100.9 µg/L	5100.9 ppb	09:31:52
3	Na 589.592 Radial†	31812.1	31723.5	9871.2 µg/L	9871.2 ppb	09:31:32
3	Sr 421.552†	49792.7	50432.8	497.68 µg/L	497.68 ppb	09:31:32
3	Sc 361.383	1967278.4	1967278.4	99.092 %		09:33:06
3	Y 371.029	1350919.1	1350919.1	99.012 %		09:33:06
3	Ag 328.068†	62339.8	63472.1	485.20 µg/L	485.20 ppb	09:33:11
3	As 188.979†	249.6	250.0	458.70 µg/L	458.70 ppb	09:33:31
3	B 249.677†	11857.4	11671.8	479.32 µg/L	479.32 ppb	09:33:11
3	Ba 233.527†	19327.4	19530.5	482.60 µg/L	482.60 ppb	09:33:11
3	Be 313.107†	780863.5	791619.2	491.72 µg/L	491.72 ppb	09:33:06
3	Cd 226.502†	18268.8	18582.3	482.51 µg/L	482.51 ppb	09:33:11
3	Co 228.616†	10290.8	10394.0	482.81 µg/L	482.81 ppb	09:33:11
3	Cr 267.716†	22821.9	23079.6	480.59 µg/L	480.59 ppb	09:33:11
3	Cu 324.752†	74492.5	72731.0	481.05 µg/L	481.05 ppb	09:33:11
3	Mn 257.610†	150724.8	152370.6	495.90 µg/L	495.90 ppb	09:33:06
3	Mo 202.031†	4471.3	4517.1	456.10 µg/L	456.10 ppb	09:33:31
3	Ni 231.604†	9594.9	9380.3	483.81 µg/L	483.81 ppb	09:33:11
3	P 214.914†	1151.9	1135.8	2235.0 µg/L	2235.0 ppb	09:33:31
3	Pb 220.353†	1934.6	1865.4	467.46 µg/L	467.46 ppb	09:33:31
3	S 181.975 Axial†	238.5	223.3	928.62 µg/L	928.62 ppb	09:33:31
3	Sb 206.836†	514.6	495.6	460.49 µg/L	460.49 ppb	09:33:31
3	Se 196.026†	347.9	332.8	485.70 µg/L	485.70 ppb	09:33:31
3	SiO2†	26339.3	25289.7	5165.3 µg/L	5165.3 ppb	09:33:11
3	Si 251.611†	30943.1	30931.6	2417.3 µg/L	2417.3 ppb	09:33:11
3	Sn 189.927†	1027.1	1036.2	448.53 µg/L	448.53 ppb	09:33:31
3	Ti 334.940†	209426.5	211250.2	487.48 µg/L	487.48 ppb	09:33:06
3	Tl 190.801†	333.1	359.9	481.15 µg/L	481.15 ppb	09:33:31
3	U 409.014†	5445.9	5585.0	475.53 µg/L	475.53 ppb	09:33:11
3	V 292.402†	46923.3	47399.0	484.80 µg/L	484.80 ppb	09:33:11
3	Zn 213.857†	20809.2	20535.8	480.68 µg/L	480.68 ppb	09:33:11

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1965887.8	99.022 %	0.4307			0.43%
Sc RADIAL	56632.7	98.9 %	0.17			0.17%
Y 371.029	1348267.1	98.818 %	0.4490			0.45%
Ag 328.068†	64556.6	493.52 µg/L	7.819	493.52 ppb	7.819	1.58%
QC value within limits for Ag 328.068 Recovery = 98.70%						
Al 396.153Radial†	7142.3	4965.1 µg/L	15.75	4965.1 ppb	15.75	0.32%
QC value within limits for Al 396.153Radial Recovery = 99.30%						
As 188.979†	269.6	494.63 µg/L	31.127	494.63 ppb	31.127	6.29%
QC value within limits for As 188.979 Recovery = 98.93%						
B 249.677†	11894.9	488.55 µg/L	8.689	488.55 ppb	8.689	1.78%
QC value within limits for B 249.677 Recovery = 97.71%						
Ba 233.527†	20078.6	496.14 µg/L	11.963	496.14 ppb	11.963	2.41%
QC value within limits for Ba 233.527 Recovery = 99.23%						
Be 313.107†	802133.6	498.25 µg/L	5.657	498.25 ppb	5.657	1.14%
QC value within limits for Be 313.107 Recovery = 99.65%						
Ca 317.933Radial†	5561.3	4827.6 µg/L	7.64	4827.6 ppb	7.64	0.16%
QC value within limits for Ca 317.933Radial Recovery = 96.55%						
Cd 226.502†	19109.9	496.22 µg/L	11.984	496.22 ppb	11.984	2.42%
QC value within limits for Cd 226.502 Recovery = 99.24%						
Co 228.616†	10709.0	497.48 µg/L	12.817	497.48 ppb	12.817	2.58%

Cr	267.716†	23873.1	497.11 µg/L	14.506	497.11 ppb	14.506	2.92%
Cu	324.752†	74652.8	493.74 µg/L	11.406	493.74 ppb	11.406	2.31%
Fe	238.204 Radial†	631.0	4995.4 µg/L	10.61	4995.4 ppb	10.61	0.21%
K	766.490 Radial†	7359.7	5065.8 µg/L	24.37	5065.8 ppb	24.37	0.48%
Mg	279.077 IEC†	578.2	5123.2 µg/L	21.55	5123.2 ppb	21.55	0.42%
Mn	257.610†	154683.4	503.42 µg/L	6.520	503.42 ppb	6.520	1.30%
Mo	202.031†	4924.5	497.22 µg/L	35.722	497.22 ppb	35.722	7.18%
Na	589.592 Radial†	31729.1	9873.0 µg/L	15.35	9873.0 ppb	15.35	0.16%
Ni	231.604†	9655.8	498.02 µg/L	12.324	498.02 ppb	12.324	2.47%
P	214.914†	1228.6	2420.9 µg/L	161.14	2420.9 ppb	161.14	6.66%
Pb	220.353†	1990.1	498.77 µg/L	27.261	498.77 ppb	27.261	5.47%
S	181.975 Axial†	235.9	981.13 µg/L	47.514	981.13 ppb	47.514	4.84%
Sb	206.836†	535.1	497.54 µg/L	32.429	497.54 ppb	32.429	6.52%
Se	196.026†	347.4	506.69 µg/L	18.308	506.69 ppb	18.308	3.61%
SiO2†		25902.1	5290.4 µg/L	110.70	5290.4 ppb	110.70	2.09%
Si	251.611†	31641.6	2472.8 µg/L	49.53	2472.8 ppb	49.53	2.00%
Sn	189.927†	1142.5	494.51 µg/L	39.894	494.51 ppb	39.894	8.07%
Sr	421.552†	50438.1	497.73 µg/L	0.641	497.73 ppb	0.641	0.13%
Ti	334.940†	214541.3	495.08 µg/L	6.587	495.08 ppb	6.587	1.33%
Tl	190.801†	376.6	503.30 µg/L	19.552	503.30 ppb	19.552	3.88%
U	409.014†	5849.4	498.10 µg/L	19.662	498.10 ppb	19.662	3.95%
V	292.402†	48880.3	500.15 µg/L	13.660	500.15 ppb	13.660	2.73%
Zn	213.857†	21122.0	494.42 µg/L	12.247	494.42 ppb	12.247	2.48%

QC value within limits for Co 228.616 Recovery = 99.50%

QC value within limits for Cr 267.716 Recovery = 99.42%

QC value within limits for Cu 324.752 Recovery = 98.75%

QC value within limits for Fe 238.204 Radial Recovery = 99.91%

QC value within limits for K 766.490 Radial Recovery = 101.32%

QC value within limits for Mg 279.077 IEC Recovery = 102.46%

QC value within limits for Mn 257.610 Recovery = 100.68%

QC value within limits for Mo 202.031 Recovery = 99.44%

QC value within limits for Na 589.592 Radial Recovery = 98.73%

QC value within limits for Ni 231.604 Recovery = 99.60%

QC value within limits for P 214.914 Recovery = 96.83%

QC value within limits for Pb 220.353 Recovery = 99.75%

QC value within limits for S 181.975 Axial Recovery = 98.11%

QC value within limits for Sb 206.836 Recovery = 99.51%

QC value within limits for Se 196.026 Recovery = 101.34%

QC value within limits for SiO2 Recovery = 98.93%

QC value within limits for Si 251.611 Recovery = 98.91%

QC value within limits for Sn 189.927 Recovery = 98.90%

QC value within limits for Sr 421.552 Recovery = 99.55%

QC value within limits for Ti 334.940 Recovery = 99.02%

QC value within limits for Tl 190.801 Recovery = 100.66%

QC value within limits for U 409.014 Recovery = 99.62%

QC value within limits for V 292.402 Recovery = 100.03%

QC value within limits for Zn 213.857 Recovery = 98.88%

All analyte(s) passed QC.



Sequence No.: 38

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/12/2010 09:33:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54820.8	54820.8	95.7 %		09:34:11
1	Al 396.153Radial†	-19.2	4.2	2.8987 µg/L	2.8987 ppb	09:34:11
1	Ca 317.933Radial†	191.9	13.7	11.858 µg/L	11.858 ppb	09:34:31
1	Fe 238.204 Radial†	17.4	4.4	35.140 µg/L	35.140 ppb	09:34:31
1	K 766.490 Radial†	194.8	37.0	25.476 µg/L	25.476 ppb	09:34:11
1	Mg 279.077 IEC†	10.9	0.6	5.1818 µg/L	5.1818 ppb	09:34:31
1	Na 589.592 Radial†	578.2	90.3	28.109 µg/L	28.109 ppb	09:34:11
1	Sr 421.552†	38.0	14.3	0.1410 µg/L	0.1410 ppb	09:34:11
1	Sc 361.383	1944771.3	1944771.3	97.958 %		09:35:30
1	Y 371.029	1338146.0	1338146.0	98.076 %		09:35:30
1	Ag 328.068†	-494.1	56.6	0.4292 µg/L	0.4292 ppb	09:35:35
1	As 188.979†	-1.8	-3.7	-6.8096 µg/L	-6.8096 ppb	09:35:55
1	B 249.677†	316.4	28.8	1.1686 µg/L	1.1686 ppb	09:35:55
1	Ba 233.527†	-29.8	-4.4	-0.1091 µg/L	-0.1091 ppb	09:35:55
1	Be 313.107†	-3561.4	-35.2	-0.0220 µg/L	-0.0220 ppb	09:35:35
1	Cd 226.502†	-147.2	-4.1	-0.1088 µg/L	-0.1088 ppb	09:35:55
1	Co 228.616†	-12.1	-3.5	-0.1609 µg/L	-0.1609 ppb	09:35:55
1	Cr 267.716†	-41.2	6.4	0.1339 µg/L	0.1339 ppb	09:35:55
1	Cu 324.752†	2531.3	139.9	0.9288 µg/L	0.9288 ppb	09:35:35
1	Mn 257.610†	-181.7	79.2	0.2619 µg/L	0.2619 ppb	09:35:55
1	Mo 202.031†	-3.5	1.3	0.1308 µg/L	0.1308 ppb	09:35:55
1	Ni 231.604†	308.2	12.1	0.6271 µg/L	0.6271 ppb	09:35:55
1	P 214.914†	27.0	0.9	1.7845 µg/L	1.7845 ppb	09:35:55
1	Pb 220.353†	94.6	9.6	2.4038 µg/L	2.4038 ppb	09:35:55
1	S 181.975 Axial†	16.0	-1.1	-4.6507 µg/L	-4.6507 ppb	09:35:55
1	Sb 206.836†	25.9	2.8	2.5624 µg/L	2.5624 ppb	09:35:55
1	Se 196.026†	11.1	-7.1	-10.064 µg/L	-10.064 ppb	09:35:55
1	SiO2†	1308.9	45.3	9.2423 µg/L	9.2423 ppb	09:35:35
1	Si 251.611†	338.8	50.8	3.9708 µg/L	3.9708 ppb	09:35:55
1	Sn 189.927†	3.2	2.9	1.2639 µg/L	1.2639 ppb	09:35:55
1	Ti 334.940†	164.9	73.0	0.1684 µg/L	0.1684 ppb	09:35:35
1	Tl 190.801†	-23.8	-0.6	-0.7442 µg/L	-0.7442 ppb	09:35:55
1	U 409.014†	-3.7	85.4	7.2794 µg/L	7.2794 ppb	09:35:35
1	V 292.402†	-86.1	-42.2	-0.4133 µg/L	-0.4133 ppb	09:35:35
1	Zn 213.857†	481.1	27.1	0.6322 µg/L	0.6322 ppb	09:35:55
2	Sc RADIAL	55567.2	55567.2	97.0 %		09:34:37
2	Al 396.153Radial†	-11.6	12.2	8.5014 µg/L	8.5014 ppb	09:34:37
2	Ca 317.933Radial†	195.9	15.1	13.084 µg/L	13.084 ppb	09:34:57
2	Fe 238.204 Radial†	14.8	1.5	11.905 µg/L	11.905 ppb	09:34:57
2	K 766.490 Radial†	145.0	-17.0	-11.706 µg/L	-11.706 ppb	09:34:37
2	Mg 279.077 IEC†	10.3	-0.2	-1.9436 µg/L	-1.9436 ppb	09:34:57
2	Na 589.592 Radial†	516.8	18.9	5.8718 µg/L	5.8718 ppb	09:34:37
2	Sr 421.552†	15.3	-9.6	-0.0948 µg/L	-0.0948 ppb	09:34:37
2	Sc 361.383	1944778.7	1944778.7	97.959 %		09:36:01
2	Y 371.029	1338510.2	1338510.2	98.103 %		09:36:01
2	Ag 328.068†	-516.6	33.7	0.2582 µg/L	0.2582 ppb	09:36:06
2	As 188.979†	-0.9	-2.8	-5.0942 µg/L	-5.0942 ppb	09:36:26
2	B 249.677†	317.5	29.9	1.2276 µg/L	1.2276 ppb	09:36:26
2	Ba 233.527†	-28.5	-3.1	-0.0763 µg/L	-0.0763 ppb	09:36:26
2	Be 313.107†	-3533.9	-7.2	-0.0046 µg/L	-0.0046 ppb	09:36:06
2	Cd 226.502†	-134.2	9.2	0.2387 µg/L	0.2387 ppb	09:36:26
2	Co 228.616†	-6.4	2.3	0.1073 µg/L	0.1073 ppb	09:36:26
2	Cr 267.716†	-31.3	16.6	0.3447 µg/L	0.3447 ppb	09:36:26
2	Cu 324.752†	2467.6	74.9	0.4962 µg/L	0.4962 ppb	09:36:06
2	Mn 257.610†	-178.3	82.6	0.2703 µg/L	0.2703 ppb	09:36:26
2	Mo 202.031†	-1.2	3.6	0.3633 µg/L	0.3633 ppb	09:36:26
2	Ni 231.604†	306.1	10.0	0.5178 µg/L	0.5178 ppb	09:36:26
2	P 214.914†	29.5	3.5	7.0401 µg/L	7.0401 ppb	09:36:26
2	Pb 220.353†	93.2	8.3	2.0693 µg/L	2.0693 ppb	09:36:26

2	S 181.975 Axial†	16.5	-0.6	-2.5634 µg/L	-2.5634 ppb	09:36:26
2	Sb 206.836†	21.9	-1.4	-1.2647 µg/L	-1.2647 ppb	09:36:26
2	Se 196.026†	18.9	0.9	1.3606 µg/L	1.3606 ppb	09:36:26
2	SiO2†	1296.8	32.9	6.7200 µg/L	6.7200 ppb	09:36:06
2	Si 251.611†	336.7	48.7	3.8034 µg/L	3.8034 ppb	09:36:26
2	Sn 189.927†	-4.5	-4.9	-2.1186 µg/L	-2.1186 ppb	09:36:26
2	Ti 334.940†	230.0	139.4	0.3222 µg/L	0.3222 ppb	09:36:06
2	Tl 190.801†	-22.1	1.2	1.5758 µg/L	1.5758 ppb	09:36:26
2	U 409.014†	-51.8	36.2	3.0874 µg/L	3.0874 ppb	09:36:06
2	V 292.402†	-21.9	23.3	0.2442 µg/L	0.2442 ppb	09:36:06
2	Zn 213.857†	486.5	32.6	0.7643 µg/L	0.7643 ppb	09:36:26
3	Sc RADIAL	55689.0	55689.0	97.2 %		09:35:02
3	Al 396.153Radial†	-7.8	16.2	11.319 µg/L	11.319 ppb	09:35:02
3	Ca 317.933Radial†	190.2	8.8	7.6030 µg/L	7.6030 ppb	09:35:22
3	Fe 238.204 Radial†	18.5	5.3	41.849 µg/L	41.849 ppb	09:35:22
3	K 766.490 Radial†	92.6	-71.3	-49.051 µg/L	-49.051 ppb	09:35:02
3	Mg 279.077 IEC†	14.9	4.5	39.961 µg/L	39.961 ppb	09:35:22
3	Na 589.592 Radial†	479.3	-20.9	-6.5002 µg/L	-6.5002 ppb	09:35:02
3	Sr 421.552†	26.1	1.5	0.0144 µg/L	0.0144 ppb	09:35:02
3	Sc 361.383	1947807.3	1947807.3	98.111 %		09:36:32
3	Y 371.029	1341530.1	1341530.1	98.324 %		09:36:32
3	Ag 328.068†	-512.0	39.2	0.2985 µg/L	0.2985 ppb	09:36:37
3	As 188.979†	-1.5	-3.4	-6.2531 µg/L	-6.2531 ppb	09:36:58
3	B 249.677†	308.2	19.9	0.7969 µg/L	0.7969 ppb	09:36:58
3	Ba 233.527†	-20.5	5.1	0.1265 µg/L	0.1265 ppb	09:36:58
3	Be 313.107†	-3464.1	69.6	0.0433 µg/L	0.0433 ppb	09:36:37
3	Cd 226.502†	-148.5	-5.1	-0.1376 µg/L	-0.1376 ppb	09:36:58
3	Co 228.616†	-6.3	2.5	0.1155 µg/L	0.1155 ppb	09:36:58
3	Cr 267.716†	-57.1	-9.7	-0.2016 µg/L	-0.2016 ppb	09:36:58
3	Cu 324.752†	2542.5	147.2	0.9782 µg/L	0.9782 ppb	09:36:37
3	Mn 257.610†	-169.7	91.7	0.3020 µg/L	0.3020 ppb	09:36:58
3	Mo 202.031†	-6.5	-1.8	-0.1815 µg/L	-0.1815 ppb	09:36:58
3	Ni 231.604†	307.9	11.3	0.5844 µg/L	0.5844 ppb	09:36:58
3	P 214.914†	28.7	2.7	5.2104 µg/L	5.2104 ppb	09:36:58
3	Pb 220.353†	95.8	10.7	2.6728 µg/L	2.6728 ppb	09:36:58
3	S 181.975 Axial†	17.2	0.1	0.2220 µg/L	0.2220 ppb	09:36:58
3	Sb 206.836†	23.7	0.5	0.4620 µg/L	0.4620 ppb	09:36:58
3	Se 196.026†	9.7	-8.5	-12.137 µg/L	-12.137 ppb	09:36:58
3	SiO2†	1339.7	74.6	15.237 µg/L	15.237 ppb	09:36:37
3	Si 251.611†	347.3	59.0	4.6078 µg/L	4.6078 ppb	09:36:58
3	Sn 189.927†	-1.1	-1.4	-0.5987 µg/L	-0.5987 ppb	09:36:58
3	Ti 334.940†	89.2	-4.4	-0.0132 µg/L	-0.0132 ppb	09:36:37
3	Tl 190.801†	-24.0	-0.7	-0.9600 µg/L	-0.9600 ppb	09:36:58
3	U 409.014†	13.8	103.2	8.7956 µg/L	8.7956 ppb	09:36:37
3	V 292.402†	-67.2	-22.8	-0.2182 µg/L	-0.2182 ppb	09:36:37
3	Zn 213.857†	482.6	27.8	0.6478 µg/L	0.6478 ppb	09:36:58

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1945785.8	98.009 %	0.0882			0.09%
Sc RADIAL	55359.0	96.7 %	0.82			0.85%
Y 371.029	1339395.4	98.168 %	0.1361			0.14%
Ag 328.068†	43.2	0.3286 µg/L	0.08938	0.3286 ppb	0.08938	27.20%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	10.9	7.5729 µg/L	4.28610	7.5729 ppb	4.28610	56.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.3	-6.0523 µg/L	0.87512	-6.0523 ppb	0.87512	14.46%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	26.2	1.0644 µg/L	0.23347	1.0644 ppb	0.23347	21.94%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-0.8	-0.0197 µg/L	0.12761	-0.0197 ppb	0.12761	649.23%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	9.1	0.0056 µg/L	0.03377	0.0056 ppb	0.03377	606.37%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	12.5	10.848 µg/L	2.8767	10.848 ppb	2.8767	26.52%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	0.0	-0.0026 µg/L	0.20946	-0.0026 ppb	0.20946	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.4	0.0206 µg/L	0.15726	0.0206 ppb	0.15726	762.40%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	4.4	0.0923 µg/L	0.27550 0.0923 ppb 0.27550 298.44%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	120.7	0.8011 µg/L	0.26517 0.8011 ppb 0.26517 33.10%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	3.8	29.631 µg/L	15.7134 29.631 ppb 15.7134 53.03%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-17.1	-11.760 µg/L	37.2633 -11.760 ppb 37.2633 316.86%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	1.6	14.400 µg/L	22.4216 14.400 ppb 22.4216 155.71%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	84.5	0.2781 µg/L	0.02116 0.2781 ppb 0.02116 7.61%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	1.0	0.1042 µg/L	0.27336 0.1042 ppb 0.27336 262.38%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	29.4	9.1601 µg/L	17.53733 9.1601 ppb 17.53733 191.45%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	11.2	0.5764 µg/L	0.05508 0.5764 ppb 0.05508 9.56%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	2.4	4.6783 µg/L	2.66793 4.6783 ppb 2.66793 57.03%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	9.5	2.3820 µg/L	0.30230 2.3820 ppb 0.30230 12.69%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-0.6	-2.3307 µg/L	2.44471 -2.3307 ppb 2.44471 104.89%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	0.6	0.5866 µg/L	1.91658 0.5866 ppb 1.91658 326.74%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	-4.9	-6.9467 µg/L	7.26858 -6.9467 ppb 7.26858 104.63%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	50.9	10.400 µg/L	4.3750 10.400 ppb 4.3750 42.07%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	52.8	4.1274 µg/L	0.42440 4.1274 ppb 0.42440 10.28%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-1.1	-0.4845 µg/L	1.69415 -0.4845 ppb 1.69415 349.69%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	2.0	0.0202 µg/L	0.11802 0.0202 ppb 0.11802 584.77%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	69.3	0.1591 µg/L	0.16793 0.1591 ppb 0.16793 105.52%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-0.0	-0.0428 µg/L	1.40587 -0.0428 ppb 1.40587 >999.9%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	74.9	6.3875 µg/L	2.95677 6.3875 ppb 2.95677 46.29%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-13.9	-0.1291 µg/L	0.33767 -0.1291 ppb 0.33767 261.52%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	29.2	0.6814 µg/L	0.07218 0.6814 ppb 0.07218 10.59%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/12/2010 10:18:47

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56701.9	56701.9	99.0 %		10:19:25
1	Al 396.153Radial†	6842.2	6935.5	4821.0 µg/L	4821.0 ppb	10:19:25
1	Ca 317.933Radial†	5596.2	5465.9	4744.7 µg/L	4744.7 ppb	10:19:45
1	Fe 238.204 Radial†	628.6	621.2	4918.0 µg/L	4918.0 ppb	10:19:45
1	K 766.490 Radial†	7294.9	7202.1	4957.3 µg/L	4957.3 ppb	10:19:25
1	Mg 279.077 IEC†	568.3	563.2	4990.6 µg/L	4990.6 ppb	10:19:45
1	Na 589.592 Radial†	31116.1	30916.6	9620.2 µg/L	9620.2 ppb	10:19:25
1	Sr 421.552†	48308.2	48770.7	481.27 µg/L	481.27 ppb	10:19:25
1	Sc 361.383	1993112.2	1993112.2	100.39 %		10:20:44
1	Y 371.029	1365870.1	1365870.1	100.11 %		10:20:44
1	Ag 328.068†	63040.0	63354.1	484.34 µg/L	484.34 ppb	10:20:50
1	As 188.979†	271.5	268.6	492.77 µg/L	492.77 ppb	10:21:10
1	B 249.677†	12011.3	11670.0	479.30 µg/L	479.30 ppb	10:20:50
1	Ba 233.527†	19759.9	19708.5	487.00 µg/L	487.00 ppb	10:20:50
1	Be 313.107†	786713.2	787232.1	489.00 µg/L	489.00 ppb	10:20:44
1	Cd 226.502†	18695.2	18768.2	487.35 µg/L	487.35 ppb	10:20:50
1	Co 228.616†	10556.4	10523.9	488.89 µg/L	488.89 ppb	10:20:50
1	Cr 267.716†	23590.5	23546.7	490.31 µg/L	490.31 ppb	10:20:50
1	Cu 324.752†	76013.8	73271.9	484.61 µg/L	484.61 ppb	10:20:50
1	Mn 257.610†	152225.3	151893.7	494.34 µg/L	494.34 ppb	10:20:44
1	Mo 202.031†	4971.1	4956.5	500.44 µg/L	500.44 ppb	10:21:10
1	Ni 231.604†	9825.7	9484.7	489.19 µg/L	489.19 ppb	10:20:50
1	P 214.914†	1268.4	1236.9	2438.4 µg/L	2438.4 ppb	10:21:10
1	Pb 220.353†	2074.5	1979.5	496.13 µg/L	496.13 ppb	10:21:10
1	S 181.975 Axial†	253.4	234.9	977.12 µg/L	977.12 ppb	10:21:10
1	Sb 206.836†	555.1	529.3	492.28 µg/L	492.28 ppb	10:21:10
1	Se 196.026†	363.8	344.0	501.67 µg/L	501.67 ppb	10:21:10
1	SiO2†	26759.9	25364.1	5180.5 µg/L	5180.5 ppb	10:20:50
1	Si 251.611†	31452.8	31034.5	2425.4 µg/L	2425.4 ppb	10:20:50
1	Sn 189.927†	1158.1	1153.3	499.18 µg/L	499.18 ppb	10:21:10
1	Ti 334.940†	212137.9	211211.6	487.40 µg/L	487.40 ppb	10:20:44
1	Tl 190.801†	346.1	368.5	492.47 µg/L	492.47 ppb	10:21:10
1	U 409.014†	5712.8	5779.5	492.15 µg/L	492.15 ppb	10:20:50
1	V 292.402†	48188.4	48045.4	491.71 µg/L	491.71 ppb	10:20:50
1	Zn 213.857†	21285.1	20737.7	485.42 µg/L	485.42 ppb	10:20:50
2	Sc RADIAL	57130.0	57130.0	99.7 %		10:19:50
2	Al 396.153Radial†	6957.5	6999.3	4865.3 µg/L	4865.3 ppb	10:19:50
2	Ca 317.933Radial†	5560.2	5387.4	4676.6 µg/L	4676.6 ppb	10:20:10
2	Fe 238.204 Radial†	624.1	612.0	4845.4 µg/L	4845.4 ppb	10:20:10
2	K 766.490 Radial†	7416.8	7269.0	5003.4 µg/L	5003.4 ppb	10:19:50
2	Mg 279.077 IEC†	572.1	562.7	4986.5 µg/L	4986.5 ppb	10:20:10
2	Na 589.592 Radial†	31502.3	31068.3	9667.3 µg/L	9667.3 ppb	10:19:50
2	Sr 421.552†	49136.5	49235.4	485.86 µg/L	485.86 ppb	10:19:50
2	Sc 361.383	1987695.2	1987695.2	100.12 %		10:21:17
2	Y 371.029	1364057.8	1364057.8	99.975 %		10:21:17
2	Ag 328.068†	63654.8	64139.3	490.34 µg/L	490.34 ppb	10:21:22
2	As 188.979†	278.3	276.1	506.58 µg/L	506.58 ppb	10:21:42
2	B 249.677†	12102.9	11794.1	484.47 µg/L	484.47 ppb	10:21:22
2	Ba 233.527†	19932.1	19934.2	492.58 µg/L	492.58 ppb	10:21:22
2	Be 313.107†	797534.7	800176.1	497.04 µg/L	497.04 ppb	10:21:17
2	Cd 226.502†	18863.4	18986.9	493.05 µg/L	493.05 ppb	10:21:22
2	Co 228.616†	10659.1	10655.2	494.99 µg/L	494.99 ppb	10:21:22
2	Cr 267.716†	23871.3	23891.2	497.49 µg/L	497.49 ppb	10:21:22
2	Cu 324.752†	76938.4	74401.8	492.06 µg/L	492.06 ppb	10:21:22
2	Mn 257.610†	154002.0	154081.5	501.45 µg/L	501.45 ppb	10:21:17
2	Mo 202.031†	5004.1	5003.0	505.13 µg/L	505.13 ppb	10:21:42
2	Ni 231.604†	9922.3	9607.9	495.54 µg/L	495.54 ppb	10:21:22
2	P 214.914†	1273.4	1245.3	2454.7 µg/L	2454.7 ppb	10:21:42
2	Pb 220.353†	2093.8	2004.4	502.38 µg/L	502.38 ppb	10:21:42

2	S 181.975 Axial†	259.0	241.2	1003.2 µg/L	1003.2 ppb	10:21:42
2	Sb 206.836†	562.9	538.6	500.90 µg/L	500.90 ppb	10:21:42
2	Se 196.026†	372.1	353.3	514.93 µg/L	514.93 ppb	10:21:42
2	SiO2†	27027.4	25704.0	5250.0 µg/L	5250.0 ppb	10:21:22
2	Si 251.611†	31789.2	31455.9	2458.3 µg/L	2458.3 ppb	10:21:22
2	Sn 189.927†	1166.3	1164.6	504.08 µg/L	504.08 ppb	10:21:42
2	Ti 334.940†	214919.2	214565.5	495.14 µg/L	495.14 ppb	10:21:17
2	Tl 190.801†	354.9	378.2	505.37 µg/L	505.37 ppb	10:21:42
2	U 409.014†	5706.3	5788.6	492.94 µg/L	492.94 ppb	10:21:22
2	V 292.402†	48779.3	48766.3	499.04 µg/L	499.04 ppb	10:21:22
2	Zn 213.857†	21473.3	20983.5	491.18 µg/L	491.18 ppb	10:21:22
3	Sc RADIAL	57176.9	57176.9	99.8 %		10:20:15
3	Al 396.153Radial†	6857.2	6893.1	4792.5 µg/L	4792.5 ppb	10:20:15
3	Ca 317.933Radial†	5587.5	5410.2	4696.4 µg/L	4696.4 ppb	10:20:35
3	Fe 238.204 Radial†	625.1	612.4	4848.4 µg/L	4848.4 ppb	10:20:35
3	K 766.490 Radial†	7275.6	7121.5	4901.9 µg/L	4901.9 ppb	10:20:15
3	Mg 279.077 IEC†	574.1	564.3	4999.3 µg/L	4999.3 ppb	10:20:35
3	Na 589.592 Radial†	31272.4	30812.1	9587.6 µg/L	9587.6 ppb	10:20:15
3	Sr 421.552†	48675.3	48733.2	480.90 µg/L	480.90 ppb	10:20:15
3	Sc 361.383	1988493.7	1988493.7	100.16 %		10:21:49
3	Y 371.029	1363060.3	1363060.3	99.902 %		10:21:49
3	Ag 328.068†	62531.8	62992.6	481.52 µg/L	481.52 ppb	10:21:54
3	As 188.979†	249.0	246.7	452.70 µg/L	452.70 ppb	10:22:14
3	B 249.677†	11962.4	11648.9	478.45 µg/L	478.45 ppb	10:21:54
3	Ba 233.527†	19419.3	19414.2	479.72 µg/L	479.72 ppb	10:21:54
3	Be 313.107†	766889.7	769260.4	477.83 µg/L	477.83 ppb	10:21:49
3	Cd 226.502†	18340.8	18457.6	479.28 µg/L	479.28 ppb	10:21:54
3	Co 228.616†	10360.2	10352.5	480.90 µg/L	480.90 ppb	10:21:54
3	Cr 267.716†	22805.0	22817.0	475.12 µg/L	475.12 ppb	10:21:54
3	Cu 324.752†	74539.8	71976.1	476.04 µg/L	476.04 ppb	10:21:54
3	Mn 257.610†	148160.9	148188.0	482.28 µg/L	482.28 ppb	10:21:49
3	Mo 202.031†	4434.1	4431.9	447.49 µg/L	447.49 ppb	10:22:14
3	Ni 231.604†	9613.0	9295.1	479.41 µg/L	479.41 ppb	10:21:54
3	P 214.914†	1152.3	1123.8	2211.5 µg/L	2211.5 ppb	10:22:14
3	Pb 220.353†	1921.6	1831.6	458.96 µg/L	458.96 ppb	10:22:14
3	S 181.975 Axial†	238.2	220.4	916.52 µg/L	916.52 ppb	10:22:14
3	Sb 206.836†	510.9	486.4	451.87 µg/L	451.87 ppb	10:22:14
3	Se 196.026†	336.1	317.2	462.97 µg/L	462.97 ppb	10:22:14
3	SiO2†	26456.4	25123.1	5131.3 µg/L	5131.3 ppb	10:21:54
3	Si 251.611†	31079.3	30734.4	2401.9 µg/L	2401.9 ppb	10:21:54
3	Sn 189.927†	1027.0	1025.1	443.70 µg/L	443.70 ppb	10:22:14
3	Ti 334.940†	206699.2	206272.5	475.99 µg/L	475.99 ppb	10:21:49
3	Tl 190.801†	330.6	353.8	472.84 µg/L	472.84 ppb	10:22:14
3	U 409.014†	5466.1	5546.4	472.27 µg/L	472.27 ppb	10:21:54
3	V 292.402†	47048.3	47018.6	480.86 µg/L	480.86 ppb	10:21:54
3	Zn 213.857†	20862.2	20364.7	476.69 µg/L	476.69 ppb	10:21:54

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1989767.0	100.22 %	0.147			0.15%
Sc RADIAL	57002.9	99.5 %	0.46			0.46%
Y 371.029	1364329.4	99.995 %	0.1044			0.10%
Ag 328.068†	63495.3	485.40 µg/L	4.504	485.40 ppb	4.504	0.93%
QC value within limits for Ag 328.068 Recovery = 97.08%						
Al 396.153Radial†	6942.7	4826.3 µg/L	36.69	4826.3 ppb	36.69	0.76%
QC value within limits for Al 396.153Radial Recovery = 96.53%						
As 188.979†	263.8	484.01 µg/L	27.988	484.01 ppb	27.988	5.78%
QC value within limits for As 188.979 Recovery = 96.80%						
B 249.677†	11704.3	480.74 µg/L	3.258	480.74 ppb	3.258	0.68%
QC value within limits for B 249.677 Recovery = 96.15%						
Ba 233.527†	19685.6	486.43 µg/L	6.447	486.43 ppb	6.447	1.33%
QC value within limits for Ba 233.527 Recovery = 97.29%						
Be 313.107†	785556.2	487.96 µg/L	9.644	487.96 ppb	9.644	1.98%
QC value within limits for Be 313.107 Recovery = 97.59%						
Ca 317.933Radial†	5421.2	4705.9 µg/L	35.05	4705.9 ppb	35.05	0.74%
QC value within limits for Ca 317.933Radial Recovery = 94.12%						
Cd 226.502†	18737.5	486.56 µg/L	6.915	486.56 ppb	6.915	1.42%
QC value within limits for Cd 226.502 Recovery = 97.31%						
Co 228.616†	10510.5	488.26 µg/L	7.066	488.26 ppb	7.066	1.45%

Cr	267.716†	23418.3	487.64 µg/L	11.419	487.64 ppb	11.419	2.34%
	QC value within limits for Cr 267.716 Recovery = 97.53%						
Cu	324.752†	73216.6	484.23 µg/L	8.016	484.23 ppb	8.016	1.66%
	QC value within limits for Cu 324.752 Recovery = 96.85%						
Fe	238.204 Radial†	615.2	4870.6 µg/L	41.10	4870.6 ppb	41.10	0.84%
	QC value within limits for Fe 238.204 Radial Recovery = 97.41%						
K	766.490 Radial†	7197.6	4954.2 µg/L	50.83	4954.2 ppb	50.83	1.03%
	QC value within limits for K 766.490 Radial Recovery = 99.08%						
Mg	279.077 IEC†	563.4	4992.1 µg/L	6.52	4992.1 ppb	6.52	0.13%
	QC value within limits for Mg 279.077 IEC Recovery = 99.84%						
Mn	257.610†	151387.7	492.69 µg/L	9.688	492.69 ppb	9.688	1.97%
	QC value within limits for Mn 257.610 Recovery = 98.54%						
Mo	202.031†	4797.1	484.35 µg/L	32.011	484.35 ppb	32.011	6.61%
	QC value within limits for Mo 202.031 Recovery = 96.87%						
Na	589.592 Radial†	30932.3	9625.0 µg/L	40.08	9625.0 ppb	40.08	0.42%
	QC value within limits for Na 589.592 Radial Recovery = 96.25%						
Ni	231.604†	9462.5	488.05 µg/L	8.127	488.05 ppb	8.127	1.67%
	QC value within limits for Ni 231.604 Recovery = 97.61%						
P	214.914†	1202.0	2368.2 µg/L	135.96	2368.2 ppb	135.96	5.74%
	QC value within limits for P 214.914 Recovery = 94.73%						
Pb	220.353†	1938.5	485.83 µg/L	23.472	485.83 ppb	23.472	4.83%
	QC value within limits for Pb 220.353 Recovery = 97.17%						
S	181.975 Axial†	232.2	965.62 µg/L	44.484	965.62 ppb	44.484	4.61%
	QC value within limits for S 181.975 Axial Recovery = 96.56%						
Sb	206.836†	518.1	481.68 µg/L	26.172	481.68 ppb	26.172	5.43%
	QC value within limits for Sb 206.836 Recovery = 96.34%						
Se	196.026†	338.2	493.19 µg/L	26.998	493.19 ppb	26.998	5.47%
	QC value within limits for Se 196.026 Recovery = 98.64%						
SiO2†		25397.1	5187.3 µg/L	59.61	5187.3 ppb	59.61	1.15%
	QC value within limits for SiO2 Recovery = 97.00%						
Si	251.611†	31075.0	2428.5 µg/L	28.33	2428.5 ppb	28.33	1.17%
	QC value within limits for Si 251.611 Recovery = 97.14%						
Sn	189.927†	1114.3	482.32 µg/L	33.531	482.32 ppb	33.531	6.95%
	QC value within limits for Sn 189.927 Recovery = 96.46%						
Sr	421.552†	48913.1	482.68 µg/L	2.761	482.68 ppb	2.761	0.57%
	QC value within limits for Sr 421.552 Recovery = 96.54%						
Ti	334.940†	210683.2	486.18 µg/L	9.633	486.18 ppb	9.633	1.98%
	QC value within limits for Ti 334.940 Recovery = 97.24%						
Tl	190.801†	366.8	490.23 µg/L	16.381	490.23 ppb	16.381	3.34%
	QC value within limits for Tl 190.801 Recovery = 98.05%						
U	409.014†	5704.9	485.79 µg/L	11.710	485.79 ppb	11.710	2.41%
	QC value within limits for U 409.014 Recovery = 97.16%						
V	292.402†	47943.4	490.54 µg/L	9.148	490.54 ppb	9.148	1.86%
	QC value within limits for V 292.402 Recovery = 98.11%						
Zn	213.857†	20695.3	484.43 µg/L	7.297	484.43 ppb	7.297	1.51%
	QC value within limits for Zn 213.857 Recovery = 96.89%						

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/12/2010 10:22:22

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56234.5	56234.5	98.2 %		10:22:54
1	Al 396.153Radial†	-2.0	22.2	15.439 µg/L	15.439 ppb	10:22:54
1	Ca 317.933Radial†	199.7	16.5	14.322 µg/L	14.322 ppb	10:23:14
1	Fe 238.204 Radial†	16.6	3.2	25.559 µg/L	25.559 ppb	10:23:14
1	K 766.490 Radial†	150.1	-13.6	-9.3815 µg/L	-9.3815 ppb	10:22:54
1	Mg 279.077 IEC†	11.5	0.9	7.9102 µg/L	7.9102 ppb	10:23:14
1	Na 589.592 Radial†	512.0	7.7	2.3939 µg/L	2.3939 ppb	10:22:54
1	Sr 421.552†	90.3	66.5	0.6564 µg/L	0.6564 ppb	10:22:54
1	Sc 361.383	1964636.1	1964636.1	98.959 %		10:24:12
1	Y 371.029	1351731.6	1351731.6	99.072 %		10:24:12
1	Ag 328.068†	-537.3	18.1	0.1419 µg/L	0.1419 ppb	10:24:18
1	As 188.979†	1.1	-0.7	-1.2301 µg/L	-1.2301 ppb	10:24:38
1	B 249.677†	340.2	49.5	2.0291 µg/L	2.0291 ppb	10:24:38
1	Ba 233.527†	-18.1	7.8	0.1921 µg/L	0.1921 ppb	10:24:38
1	Be 313.107†	-3331.4	234.0	0.1450 µg/L	0.1450 ppb	10:24:18
1	Cd 226.502†	-127.2	17.7	0.4561 µg/L	0.4561 ppb	10:24:38
1	Co 228.616†	-10.1	-1.4	-0.0650 µg/L	-0.0650 ppb	10:24:38
1	Cr 267.716†	-44.2	3.9	0.0806 µg/L	0.0806 ppb	10:24:38
1	Cu 324.752†	2467.5	49.3	0.3290 µg/L	0.3290 ppb	10:24:18
1	Mn 257.610†	-195.8	66.8	0.2201 µg/L	0.2201 ppb	10:24:38
1	Mo 202.031†	-1.9	2.9	0.2984 µg/L	0.2984 ppb	10:24:38
1	Ni 231.604†	308.0	8.7	0.4513 µg/L	0.4513 ppb	10:24:38
1	P 214.914†	15.7	-10.8	-21.698 µg/L	-21.698 ppb	10:24:38
1	Pb 220.353†	101.6	15.7	3.9424 µg/L	3.9424 ppb	10:24:38
1	S 181.975 Axial†	16.0	-1.3	-5.2112 µg/L	-5.2112 ppb	10:24:38
1	Sb 206.836†	24.6	1.2	1.1098 µg/L	1.1098 ppb	10:24:38
1	Se 196.026†	8.5	-9.7	-13.920 µg/L	-13.920 ppb	10:24:38
1	SiO2†	1345.5	68.7	14.038 µg/L	14.038 ppb	10:24:18
1	Si 251.611†	357.6	66.3	5.1812 µg/L	5.1812 ppb	10:24:38
1	Sn 189.927†	-1.6	-1.9	-0.8222 µg/L	-0.8222 ppb	10:24:38
1	Ti 334.940†	467.7	377.3	0.8708 µg/L	0.8708 ppb	10:24:18
1	Tl 190.801†	-24.5	-1.1	-1.3856 µg/L	-1.3856 ppb	10:24:38
1	U 409.014†	-60.9	27.6	2.3509 µg/L	2.3509 ppb	10:24:18
1	V 292.402†	2.8	48.5	0.4985 µg/L	0.4985 ppb	10:24:18
1	Zn 213.857†	477.3	18.3	0.4267 µg/L	0.4267 ppb	10:24:38
2	Sc RADIAL	55965.7	55965.7	97.7 %		10:23:19
2	Al 396.153Radial†	-19.6	4.1	2.8725 µg/L	2.8725 ppb	10:23:19
2	Ca 317.933Radial†	204.2	22.1	19.219 µg/L	19.219 ppb	10:23:39
2	Fe 238.204 Radial†	16.9	3.6	28.097 µg/L	28.097 ppb	10:23:39
2	K 766.490 Radial†	179.7	17.4	11.972 µg/L	11.972 ppb	10:23:19
2	Mg 279.077 IEC†	10.1	-0.5	-4.4499 µg/L	-4.4499 ppb	10:23:39
2	Na 589.592 Radial†	479.5	-23.1	-7.1885 µg/L	-7.1885 ppb	10:23:19
2	Sr 421.552†	37.4	12.9	0.1269 µg/L	0.1269 ppb	10:23:19
2	Sc 361.383	1954981.7	1954981.7	98.473 %		10:24:44
2	Y 371.029	1344413.9	1344413.9	98.535 %		10:24:44
2	Ag 328.068†	-566.6	-14.3	-0.1052 µg/L	-0.1052 ppb	10:24:49
2	As 188.979†	-4.5	-6.4	-11.745 µg/L	-11.745 ppb	10:25:09
2	B 249.677†	339.4	50.4	2.0621 µg/L	2.0621 ppb	10:25:09
2	Ba 233.527†	-13.6	12.2	0.3018 µg/L	0.3018 ppb	10:25:09
2	Be 313.107†	-3405.9	141.6	0.0876 µg/L	0.0876 ppb	10:24:49
2	Cd 226.502†	-139.3	4.7	0.1198 µg/L	0.1198 ppb	10:25:09
2	Co 228.616†	-7.4	1.4	0.0621 µg/L	0.0621 ppb	10:25:09
2	Cr 267.716†	-54.3	-6.6	-0.1362 µg/L	-0.1362 ppb	10:25:09
2	Cu 324.752†	2484.5	78.9	0.5250 µg/L	0.5250 ppb	10:24:49
2	Mn 257.610†	-201.2	60.4	0.2002 µg/L	0.2002 ppb	10:25:09
2	Mo 202.031†	-1.5	3.3	0.3344 µg/L	0.3344 ppb	10:25:09
2	Ni 231.604†	304.1	6.3	0.3255 µg/L	0.3255 ppb	10:25:09
2	P 214.914†	27.7	1.6	3.0514 µg/L	3.0514 ppb	10:25:09
2	Pb 220.353†	95.2	9.8	2.4523 µg/L	2.4523 ppb	10:25:09

2	S 181.975 Axial†	14.4	-2.8	-11.499 µg/L	-11.499 ppb	10:25:09
2	Sb 206.836†	26.0	2.7	2.5084 µg/L	2.5084 ppb	10:25:09
2	Se 196.026†	15.6	-2.5	-3.4625 µg/L	-3.4625 ppb	10:25:09
2	SiO2†	1315.8	45.3	9.2538 µg/L	9.2538 ppb	10:24:49
2	Si 251.611†	366.5	77.1	6.0260 µg/L	6.0260 ppb	10:25:09
2	Sn 189.927†	0.6	0.3	0.1286 µg/L	0.1286 ppb	10:25:09
2	Ti 334.940†	533.3	446.2	1.0309 µg/L	1.0309 ppb	10:24:49
2	Tl 190.801†	-22.2	1.2	1.5572 µg/L	1.5572 ppb	10:25:09
2	U 409.014†	-61.5	26.7	2.2725 µg/L	2.2725 ppb	10:24:49
2	V 292.402†	-17.4	28.0	0.2909 µg/L	0.2909 ppb	10:24:49
2	Zn 213.857†	483.9	27.3	0.6406 µg/L	0.6406 ppb	10:25:09
3	Sc RADIAL	56186.1	56186.1	98.1 %		10:23:45
3	Al 396.153Radial†	1.1	25.4	17.662 µg/L	17.662 ppb	10:23:45
3	Ca 317.933Radial†	205.5	22.6	19.602 µg/L	19.602 ppb	10:24:05
3	Fe 238.204 Radial†	16.2	2.8	21.823 µg/L	21.823 ppb	10:24:05
3	K 766.490 Radial†	142.3	-21.5	-14.775 µg/L	-14.775 ppb	10:23:45
3	Mg 279.077 IEC†	10.3	-0.4	-3.2304 µg/L	-3.2304 ppb	10:24:05
3	Na 589.592 Radial†	492.9	-11.3	-3.5149 µg/L	-3.5149 ppb	10:23:45
3	Sr 421.552†	16.3	-8.8	-0.0867 µg/L	-0.0867 ppb	10:23:45
3	Sc 361.383	1952710.7	1952710.7	98.358 %		10:25:15
3	Y 371.029	1343989.9	1343989.9	98.504 %		10:25:15
3	Ag 328.068†	-498.1	54.6	0.4170 µg/L	0.4170 ppb	10:25:20
3	As 188.979†	-5.6	-7.6	-13.884 µg/L	-13.884 ppb	10:25:40
3	B 249.677†	332.1	43.4	1.7759 µg/L	1.7759 ppb	10:25:40
3	Ba 233.527†	-20.4	5.3	0.1320 µg/L	0.1320 ppb	10:25:40
3	Be 313.107†	-3435.9	107.1	0.0662 µg/L	0.0662 ppb	10:25:20
3	Cd 226.502†	-136.9	7.0	0.1786 µg/L	0.1786 ppb	10:25:40
3	Co 228.616†	-6.4	2.4	0.1096 µg/L	0.1096 ppb	10:25:40
3	Cr 267.716†	-43.9	3.9	0.0812 µg/L	0.0812 ppb	10:25:40
3	Cu 324.752†	2488.5	85.8	0.5699 µg/L	0.5699 ppb	10:25:20
3	Mn 257.610†	-190.3	71.2	0.2345 µg/L	0.2345 ppb	10:25:40
3	Mo 202.031†	-4.9	-0.2	-0.0161 µg/L	-0.0161 ppb	10:25:40
3	Ni 231.604†	303.5	6.1	0.3148 µg/L	0.3148 ppb	10:25:40
3	P 214.914†	26.1	-0.1	-0.2412 µg/L	-0.2412 ppb	10:25:40
3	Pb 220.353†	95.9	10.6	2.6492 µg/L	2.6492 ppb	10:25:40
3	S 181.975 Axial†	13.3	-3.9	-16.113 µg/L	-16.113 ppb	10:25:40
3	Sb 206.836†	24.8	1.6	1.4589 µg/L	1.4589 ppb	10:25:40
3	Se 196.026†	19.9	1.9	2.8028 µg/L	2.8028 ppb	10:25:40
3	SiO2†	1280.4	10.8	2.2157 µg/L	2.2157 ppb	10:25:20
3	Si 251.611†	349.3	60.0	4.6909 µg/L	4.6909 ppb	10:25:40
3	Sn 189.927†	2.5	2.2	0.9523 µg/L	0.9523 ppb	10:25:40
3	Ti 334.940†	509.0	422.2	0.9754 µg/L	0.9754 ppb	10:25:20
3	Tl 190.801†	-25.7	-2.4	-3.2072 µg/L	-3.2072 ppb	10:25:40
3	U 409.014†	-46.1	42.3	3.6011 µg/L	3.6011 ppb	10:25:20
3	V 292.402†	-30.6	14.6	0.1538 µg/L	0.1538 ppb	10:25:20
3	Zn 213.857†	480.1	24.1	0.5652 µg/L	0.5652 ppb	10:25:40

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1957442.8	98.597 %	0.3190			0.32%
Sc RADIAL	56128.8	98.0 %	0.25			0.26%
Y 371.029	1346711.8	98.704 %	0.3190			0.32%
Ag 328.068†	19.5	0.1513 µg/L	0.26125	0.1513 ppb	0.26125	172.71%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	17.2	11.991 µg/L	7.9750	11.991 ppb	7.9750	66.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-4.9	-8.9532 µg/L	6.77334	-8.9532 ppb	6.77334	75.65%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	47.8	1.9557 µg/L	0.15660	1.9557 ppb	0.15660	8.01%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	8.4	0.2086 µg/L	0.08614	0.2086 ppb	0.08614	41.28%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	160.9	0.0996 µg/L	0.04078	0.0996 ppb	0.04078	40.94%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	20.4	17.715 µg/L	2.9444	17.715 ppb	2.9444	16.62%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	9.8	0.2515 µg/L	0.17959	0.2515 ppb	0.17959	71.41%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.8	0.0356 µg/L	0.09027	0.0356 ppb	0.09027	253.71%



QC value within limits	for Co 228.616	Recovery = Not calculated		
Cr 267.716†	0.4	0.0085 µg/L	0.12537	0.0085 ppb 0.12537 >999.9%
QC value within limits	for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	71.3	0.4746 µg/L	0.12810	0.4746 ppb 0.12810 26.99%
QC value within limits	for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	3.2	25.160 µg/L	3.1560	25.160 ppb 3.1560 12.54%
QC value within limits	for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-5.9	-4.0615 µg/L	14.14525	-4.0615 ppb 14.14525 348.28%
QC value within limits	for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	0.0	0.0766 µg/L	6.81142	0.0766 ppb 6.81142 >999.9%
QC value within limits	for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	66.1	0.2183 µg/L	0.01723	0.2183 ppb 0.01723 7.89%
QC value within limits	for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	2.0	0.2056 µg/L	0.19284	0.2056 ppb 0.19284 93.81%
QC value within limits	for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-8.9	-2.7699 µg/L	4.83444	-2.7699 ppb 4.83444 174.54%
QC value within limits	for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	7.0	0.3639 µg/L	0.07591	0.3639 ppb 0.07591 20.86%
QC value within limits	for Ni 231.604	Recovery = Not calculated		
P 214.914†	-3.1	-6.2958 µg/L	13.43952	-6.2958 ppb 13.43952 213.47%
QC value within limits	for P 214.914	Recovery = Not calculated		
Pb 220.353†	12.0	3.0146 µg/L	0.80948	3.0146 ppb 0.80948 26.85%
QC value within limits	for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-2.6	-10.941 µg/L	5.4724	-10.941 ppb 5.4724 50.02%
QC value within limits	for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	1.8	1.6924 µg/L	0.72798	1.6924 ppb 0.72798 43.01%
QC value within limits	for Sb 206.836	Recovery = Not calculated		
Se 196.026†	-3.4	-4.8598 µg/L	8.44836	-4.8598 ppb 8.44836 173.84%
QC value within limits	for Se 196.026	Recovery = Not calculated		
SiO2†	41.6	8.5026 µg/L	5.94694	8.5026 ppb 5.94694 69.94%
QC value within limits	for SiO2	Recovery = Not calculated		
Si 251.611†	67.8	5.2994 µg/L	0.67535	5.2994 ppb 0.67535 12.74%
QC value within limits	for Si 251.611	Recovery = Not calculated		
Sn 189.927†	0.2	0.0862 µg/L	0.88799	0.0862 ppb 0.88799 >999.9%
QC value within limits	for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	23.5	0.2322 µg/L	0.38259	0.2322 ppb 0.38259 164.77%
QC value within limits	for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	415.2	0.9591 µg/L	0.08131	0.9591 ppb 0.08131 8.48%
QC value within limits	for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-0.8	-1.0118 µg/L	2.40409	-1.0118 ppb 2.40409 237.60%
QC value within limits	for Tl 190.801	Recovery = Not calculated		
U 409.014†	32.2	2.7415 µg/L	0.74546	2.7415 ppb 0.74546 27.19%
QC value within limits	for U 409.014	Recovery = Not calculated		
V 292.402†	30.4	0.3144 µg/L	0.17353	0.3144 ppb 0.17353 55.19%
QC value within limits	for V 292.402	Recovery = Not calculated		
Zn 213.857†	23.2	0.5441 µg/L	0.10846	0.5441 ppb 0.10846 19.93%
QC value within limits	for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 19

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/12/2010 10:58:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56478.3	56478.3	98.6 %		10:59:13
1	Al 396.153Radial†	6906.1	7027.6	4885.0 µg/L	4885.0 ppb	10:59:34
1	Ca 317.933Radial†	5641.2	5533.9	4803.8 µg/L	4803.8 ppb	10:59:34
1	Fe 238.204 Radial†	628.0	623.1	4933.4 µg/L	4933.4 ppb	10:59:34
1	K 766.490 Radial†	7311.9	7248.5	4989.3 µg/L	4989.3 ppb	10:59:13
1	Mg 279.077 IEC†	576.0	573.3	5080.1 µg/L	5080.1 ppb	10:59:34
1	Na 589.592 Radial†	31549.2	31480.3	9795.5 µg/L	9795.5 ppb	10:59:13
1	Sr 421.552†	49215.0	49883.5	492.26 µg/L	492.26 ppb	10:59:13
1	Sc 361.383	1989530.1	1989530.1	100.21 %		11:00:37
1	Y 371.029	1361090.7	1361090.7	99.758 %		11:00:37
1	Ag 328.068†	63934.8	64360.1	492.04 µg/L	492.04 ppb	11:00:43
1	As 188.979†	274.0	271.6	498.21 µg/L	498.21 ppb	11:01:03
1	B 249.677†	12236.5	11916.2	489.46 µg/L	489.46 ppb	11:00:43
1	Ba 233.527†	20121.9	20105.2	496.80 µg/L	496.80 ppb	11:00:43
1	Be 313.107†	782603.8	784542.3	487.33 µg/L	487.33 ppb	11:00:37
1	Cd 226.502†	19019.1	19124.9	496.62 µg/L	496.62 ppb	11:00:43
1	Co 228.616†	10772.0	10758.0	499.79 µg/L	499.79 ppb	11:00:43
1	Cr 267.716†	24065.4	24062.9	501.06 µg/L	501.06 ppb	11:00:43
1	Cu 324.752†	77296.4	74688.1	493.96 µg/L	493.96 ppb	11:00:43
1	Mn 257.610†	150869.6	150813.9	490.83 µg/L	490.83 ppb	11:00:37
1	Mo 202.031†	5004.6	4998.8	504.72 µg/L	504.72 ppb	11:01:03
1	Ni 231.604†	9982.6	9658.9	498.18 µg/L	498.18 ppb	11:00:43
1	P 214.914†	1273.2	1243.9	2451.7 µg/L	2451.7 ppb	11:01:03
1	Pb 220.353†	2113.5	2022.1	506.82 µg/L	506.82 ppb	11:01:03
1	S 181.975 Axial†	253.0	235.0	977.43 µg/L	977.43 ppb	11:01:03
1	Sb 206.836†	559.2	534.3	496.89 µg/L	496.89 ppb	11:01:03
1	Se 196.026†	364.3	345.2	503.32 µg/L	503.32 ppb	11:01:03
1	SiO2†	27287.6	25938.7	5297.9 µg/L	5297.9 ppb	11:00:43
1	Si 251.611†	32068.9	31705.8	2477.8 µg/L	2477.8 ppb	11:00:43
1	Sn 189.927†	1169.9	1167.1	505.18 µg/L	505.18 ppb	11:01:03
1	Ti 334.940†	210490.4	209948.1	484.47 µg/L	484.47 ppb	11:00:37
1	Tl 190.801†	350.8	373.8	499.32 µg/L	499.32 ppb	11:01:03
1	U 409.014†	5783.4	5860.2	499.03 µg/L	499.03 ppb	11:00:43
1	V 292.402†	49113.3	49054.7	501.98 µg/L	501.98 ppb	11:00:43
1	Zn 213.857†	21684.5	21174.4	495.66 µg/L	495.66 ppb	11:00:43
2	Sc RADIAL	56626.5	56626.5	98.9 %		10:59:39
2	Al 396.153Radial†	6874.7	6977.6	4850.2 µg/L	4850.2 ppb	11:00:00
2	Ca 317.933Radial†	5632.3	5509.9	4783.0 µg/L	4783.0 ppb	11:00:00
2	Fe 238.204 Radial†	621.5	614.9	4868.5 µg/L	4868.5 ppb	11:00:00
2	K 766.490 Radial†	7315.5	7232.7	4978.4 µg/L	4978.4 ppb	10:59:39
2	Mg 279.077 IEC†	571.5	567.2	5026.4 µg/L	5026.4 ppb	11:00:00
2	Na 589.592 Radial†	31392.1	31237.6	9720.0 µg/L	9720.0 ppb	10:59:39
2	Sr 421.552†	49050.5	49586.5	489.32 µg/L	489.32 ppb	10:59:39
2	Sc 361.383	1976882.9	1976882.9	99.576 %		11:01:11
2	Y 371.029	1352181.6	1352181.6	99.105 %		11:01:11
2	Ag 328.068†	63482.5	64314.0	491.68 µg/L	491.68 ppb	11:01:16
2	As 188.979†	272.2	271.5	498.09 µg/L	498.09 ppb	11:01:37
2	B 249.677†	12125.5	11882.9	488.12 µg/L	488.12 ppb	11:01:16
2	Ba 233.527†	19951.5	20062.6	495.75 µg/L	495.75 ppb	11:01:16
2	Be 313.107†	784889.2	791833.6	491.85 µg/L	491.85 ppb	11:01:11
2	Cd 226.502†	18847.6	19074.1	495.31 µg/L	495.31 ppb	11:01:16
2	Co 228.616†	10647.7	10701.9	497.17 µg/L	497.17 ppb	11:01:16
2	Cr 267.716†	23797.4	23947.3	498.66 µg/L	498.66 ppb	11:01:16
2	Cu 324.752†	76817.2	74700.3	494.03 µg/L	494.03 ppb	11:01:16
2	Mn 257.610†	151308.9	152218.2	495.39 µg/L	495.39 ppb	11:01:11
2	Mo 202.031†	4973.8	4999.8	504.81 µg/L	504.81 ppb	11:01:37
2	Ni 231.604†	9936.3	9676.2	499.07 µg/L	499.07 ppb	11:01:16
2	P 214.914†	1271.9	1250.7	2465.3 µg/L	2465.3 ppb	11:01:37
2	Pb 220.353†	2088.3	2010.3	503.83 µg/L	503.83 ppb	11:01:37

2	S 181.975 Axial†	249.7	233.3	970.37 µg/L	970.37 ppb	11:01:37
2	Sb 206.836†	556.0	534.7	497.24 µg/L	497.24 ppb	11:01:37
2	Se 196.026†	363.5	346.7	505.36 µg/L	505.36 ppb	11:01:37
2	SiO2†	27092.8	25917.3	5293.5 µg/L	5293.5 ppb	11:01:16
2	Si 251.611†	31863.5	31704.1	2477.7 µg/L	2477.7 ppb	11:01:16
2	Sn 189.927†	1161.7	1166.3	504.84 µg/L	504.84 ppb	11:01:37
2	Ti 334.940†	211575.1	212381.1	490.10 µg/L	490.10 ppb	11:01:11
2	Tl 190.801†	356.0	381.2	509.26 µg/L	509.26 ppb	11:01:37
2	U 409.014†	5861.3	5975.4	508.87 µg/L	508.87 ppb	11:01:16
2	V 292.402†	48636.2	48889.1	500.30 µg/L	500.30 ppb	11:01:16
2	Zn 213.857†	21490.9	21118.4	494.34 µg/L	494.34 ppb	11:01:16
3	Sc RADIAL	56497.2	56497.2	98.6 %		11:00:05
3	Al 396.153Radial†	6906.1	7025.3	4885.1 µg/L	4885.1 ppb	11:00:26
3	Ca 317.933Radial†	5651.2	5542.1	4810.9 µg/L	4810.9 ppb	11:00:26
3	Fe 238.204 Radial†	627.9	622.8	4929.8 µg/L	4929.8 ppb	11:00:26
3	K 766.490 Radial†	7270.2	7203.8	4958.5 µg/L	4958.5 ppb	11:00:05
3	Mg 279.077 IEC†	573.1	570.2	5051.0 µg/L	5051.0 ppb	11:00:26
3	Na 589.592 Radial†	31374.7	31292.6	9737.2 µg/L	9737.2 ppb	11:00:05
3	Sr 421.552†	48892.3	49539.7	488.86 µg/L	488.86 ppb	11:00:05
3	Sc 361.383	1988073.0	1988073.0	100.14 %		11:01:44
3	Y 371.029	1360441.7	1360441.7	99.710 %		11:01:44
3	Ag 328.068†	60467.9	60944.7	465.83 µg/L	465.83 ppb	11:01:49
3	As 188.979†	241.8	239.6	439.71 µg/L	439.71 ppb	11:02:10
3	B 249.677†	11525.2	11214.9	460.47 µg/L	460.47 ppb	11:01:49
3	Ba 233.527†	18643.8	18643.9	460.68 µg/L	460.68 ppb	11:01:49
3	Be 313.107†	750086.0	752642.1	467.51 µg/L	467.51 ppb	11:01:44
3	Cd 226.502†	17495.4	17617.2	457.43 µg/L	457.43 ppb	11:01:49
3	Co 228.616†	9829.3	9824.5	456.35 µg/L	456.35 ppb	11:01:49
3	Cr 267.716†	21494.3	21513.0	447.97 µg/L	447.97 ppb	11:01:49
3	Cu 324.752†	71217.5	68674.2	454.24 µg/L	454.24 ppb	11:01:49
3	Mn 257.610†	145322.4	145384.7	473.18 µg/L	473.18 ppb	11:01:44
3	Mo 202.031†	4202.8	4201.8	424.27 µg/L	424.27 ppb	11:02:10
3	Ni 231.604†	9168.2	8852.9	456.61 µg/L	456.61 ppb	11:01:49
3	P 214.914†	1104.9	1076.8	2118.8 µg/L	2118.8 ppb	11:02:10
3	Pb 220.353†	1846.5	1757.0	440.27 µg/L	440.27 ppb	11:02:10
3	S 181.975 Axial†	226.9	209.2	869.95 µg/L	869.95 ppb	11:02:10
3	Sb 206.836†	488.6	464.3	431.33 µg/L	431.33 ppb	11:02:10
3	Se 196.026†	329.5	310.7	453.80 µg/L	453.80 ppb	11:02:10
3	SiO2†	25586.4	24259.8	4955.0 µg/L	4955.0 ppb	11:01:49
3	Si 251.611†	29980.4	29643.6	2316.7 µg/L	2316.7 ppb	11:01:49
3	Sn 189.927†	961.4	959.8	415.45 µg/L	415.45 ppb	11:02:10
3	Ti 334.940†	201394.7	201019.0	463.86 µg/L	463.86 ppb	11:01:44
3	Tl 190.801†	322.7	346.0	462.52 µg/L	462.52 ppb	11:02:10
3	U 409.014†	5271.3	5353.1	455.76 µg/L	455.76 ppb	11:01:49
3	V 292.402†	44742.5	44725.9	457.44 µg/L	457.44 ppb	11:01:49
3	Zn 213.857†	19892.6	19400.9	454.10 µg/L	454.10 ppb	11:01:49

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1984828.7	99.976 %	0.3485			0.35%
Sc RADIAL	56534.0	98.7 %	0.14			0.14%
Y 371.029	1357904.6	99.524 %	0.3640			0.37%
Ag 328.068†	63206.3	483.18 µg/L	15.028	483.18 ppb	15.028	3.11%
QC value within limits for Ag 328.068 Recovery = 96.64%						
Al 396.153Radial†	7010.2	4873.4 µg/L	20.13	4873.4 ppb	20.13	0.41%
QC value within limits for Al 396.153Radial Recovery = 97.47%						
As 188.979†	260.9	478.67 µg/L	33.743	478.67 ppb	33.743	7.05%
QC value within limits for As 188.979 Recovery = 95.73%						
B 249.677†	11671.4	479.35 µg/L	16.366	479.35 ppb	16.366	3.41%
QC value within limits for B 249.677 Recovery = 95.87%						
Ba 233.527†	19603.9	484.41 µg/L	20.559	484.41 ppb	20.559	4.24%
QC value within limits for Ba 233.527 Recovery = 96.88%						
Be 313.107†	776339.3	482.23 µg/L	12.947	482.23 ppb	12.947	2.68%
QC value within limits for Be 313.107 Recovery = 96.45%						
Ca 317.933Radial†	5528.6	4799.2 µg/L	14.52	4799.2 ppb	14.52	0.30%
QC value within limits for Ca 317.933Radial Recovery = 95.98%						
Cd 226.502†	18605.4	483.12 µg/L	22.261	483.12 ppb	22.261	4.61%
QC value within limits for Cd 226.502 Recovery = 96.62%						
Co 228.616†	10428.1	484.44 µg/L	24.361	484.44 ppb	24.361	5.03%

Cr	267.716†	23174.4	482.56 µg/L	29.982	482.56 ppb	29.982	6.21%
	QC value within limits for Cr 267.716 Recovery = 96.51%						
Cu	324.752†	72687.5	480.75 µg/L	22.953	480.75 ppb	22.953	4.77%
	QC value within limits for Cu 324.752 Recovery = 96.15%						
Fe	238.204 Radial†	620.3	4910.6 µg/L	36.49	4910.6 ppb	36.49	0.74%
	QC value within limits for Fe 238.204 Radial Recovery = 98.21%						
K	766.490 Radial†	7228.3	4975.4 µg/L	15.63	4975.4 ppb	15.63	0.31%
	QC value within limits for K 766.490 Radial Recovery = 99.51%						
Mg	279.077 IEC†	570.2	5052.5 µg/L	26.89	5052.5 ppb	26.89	0.53%
	QC value within limits for Mg 279.077 IEC Recovery = 101.05%						
Mn	257.610†	149472.3	486.47 µg/L	11.731	486.47 ppb	11.731	2.41%
	QC value within limits for Mn 257.610 Recovery = 97.29%						
Mo	202.031†	4733.5	477.93 µg/L	46.471	477.93 ppb	46.471	9.72%
	QC value within limits for Mo 202.031 Recovery = 95.59%						
Na	589.592 Radial†	31336.8	9750.9 µg/L	39.59	9750.9 ppb	39.59	0.41%
	QC value within limits for Na 589.592 Radial Recovery = 97.51%						
Ni	231.604†	9396.0	484.62 µg/L	24.259	484.62 ppb	24.259	5.01%
	QC value within limits for Ni 231.604 Recovery = 96.92%						
P	214.914†	1190.5	2345.3 µg/L	196.23	2345.3 ppb	196.23	8.37%
	QC value within limits for P 214.914 Recovery = 93.81%						
Pb	220.353†	1929.8	483.64 µg/L	37.591	483.64 ppb	37.591	7.77%
	QC value within limits for Pb 220.353 Recovery = 96.73%						
S	181.975 Axial†	225.8	939.25 µg/L	60.118	939.25 ppb	60.118	6.40%
	QC value within limits for S 181.975 Axial Recovery = 93.93%						
Sb	206.836†	511.1	475.15 µg/L	37.951	475.15 ppb	37.951	7.99%
	QC value within limits for Sb 206.836 Recovery = 95.03%						
Se	196.026†	334.2	487.49 µg/L	29.197	487.49 ppb	29.197	5.99%
	QC value within limits for Se 196.026 Recovery = 97.50%						
SiO2†		25371.9	5182.1 µg/L	196.73	5182.1 ppb	196.73	3.80%
	QC value within limits for SiO2 Recovery = 96.91%						
Si	251.611†	31017.8	2424.1 µg/L	93.01	2424.1 ppb	93.01	3.84%
	QC value within limits for Si 251.611 Recovery = 96.96%						
Sn	189.927†	1097.7	475.16 µg/L	51.710	475.16 ppb	51.710	10.88%
	QC value within limits for Sn 189.927 Recovery = 95.03%						
Sr	421.552†	49669.9	490.15 µg/L	1.840	490.15 ppb	1.840	0.38%
	QC value within limits for Sr 421.552 Recovery = 98.03%						
Ti	334.940†	207782.7	479.48 µg/L	13.815	479.48 ppb	13.815	2.88%
	QC value within limits for Ti 334.940 Recovery = 95.90%						
Tl	190.801†	367.0	490.37 µg/L	24.624	490.37 ppb	24.624	5.02%
	QC value within limits for Tl 190.801 Recovery = 98.07%						
U	409.014†	5729.6	487.88 µg/L	28.251	487.88 ppb	28.251	5.79%
	QC value within limits for U 409.014 Recovery = 97.58%						
V	292.402†	47556.6	486.57 µg/L	25.247	486.57 ppb	25.247	5.19%
	QC value within limits for V 292.402 Recovery = 97.31%						
Zn	213.857†	20564.5	481.36 µg/L	23.623	481.36 ppb	23.623	4.91%
	QC value within limits for Zn 213.857 Recovery = 96.27%						

All analyte(s) passed QC.

Sequence No.: 20

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/12/2010 11:02:19

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56950.0	56950.0	99.4 %		11:02:52
1	Al 396.153Radial†	10.3	34.6	24.086 µg/L	24.086 ppb	11:02:52
1	Ca 317.933Radial†	198.2	12.4	10.804 µg/L	10.804 ppb	11:03:12
1	Fe 238.204 Radial†	16.2	2.6	20.378 µg/L	20.378 ppb	11:03:12
1	K 766.490 Radial†	164.8	-0.8	-0.5362 µg/L	-0.5362 ppb	11:02:52
1	Mg 279.077 IEC†	10.5	-0.2	-2.1426 µg/L	-2.1426 ppb	11:03:12
1	Na 589.592 Radial†	434.2	-77.1	-23.982 µg/L	-23.982 ppb	11:02:52
1	Sr 421.552†	42.3	17.1	0.1687 µg/L	0.1687 ppb	11:02:52
1	Sc 361.383	1961622.9	1961622.9	98.807 %		11:04:14
1	Y 371.029	1345995.7	1345995.7	98.651 %		11:04:14
1	Ag 328.068†	-579.2	-25.1	-0.1894 µg/L	-0.1894 ppb	11:04:20
1	As 188.979†	-2.0	-3.9	-7.1475 µg/L	-7.1475 ppb	11:04:40
1	B 249.677†	328.7	38.4	1.5732 µg/L	1.5732 ppb	11:04:40
1	Ba 233.527†	-19.7	6.1	0.1508 µg/L	0.1508 ppb	11:04:40
1	Be 313.107†	-3615.2	-58.5	-0.0365 µg/L	-0.0365 ppb	11:04:20
1	Cd 226.502†	-132.3	12.3	0.3167 µg/L	0.3167 ppb	11:04:40
1	Co 228.616†	-9.8	-1.1	-0.0521 µg/L	-0.0521 ppb	11:04:40
1	Cr 267.716†	-37.5	10.6	0.2211 µg/L	0.2211 ppb	11:04:40
1	Cu 324.752†	2485.7	71.6	0.4756 µg/L	0.4756 ppb	11:04:20
1	Mn 257.610†	-157.8	104.9	0.3439 µg/L	0.3439 ppb	11:04:40
1	Mo 202.031†	-10.1	-5.3	-0.5378 µg/L	-0.5378 ppb	11:04:40
1	Ni 231.604†	298.1	-0.8	-0.0403 µg/L	-0.0403 ppb	11:04:40
1	P 214.914†	28.2	2.0	3.8552 µg/L	3.8552 ppb	11:04:40
1	Pb 220.353†	98.3	12.6	3.1488 µg/L	3.1488 ppb	11:04:40
1	S 181.975 Axial†	14.9	-2.4	-9.9456 µg/L	-9.9456 ppb	11:04:40
1	Sb 206.836†	23.1	-0.3	-0.2750 µg/L	-0.2750 ppb	11:04:40
1	Se 196.026†	17.4	-0.8	-1.0717 µg/L	-1.0717 ppb	11:04:40
1	SiO2†	1342.6	67.9	13.873 µg/L	13.873 ppb	11:04:20
1	Si 251.611†	385.1	94.7	7.3978 µg/L	7.3978 ppb	11:04:40
1	Sn 189.927†	-1.6	-2.0	-0.8534 µg/L	-0.8534 ppb	11:04:40
1	Ti 334.940†	240.1	147.7	0.3413 µg/L	0.3413 ppb	11:04:20
1	Tl 190.801†	-21.8	1.7	2.2356 µg/L	2.2356 ppb	11:04:40
1	U 409.014†	36.8	126.4	10.778 µg/L	10.778 ppb	11:04:20
1	V 292.402†	-49.1	-4.0	-0.0306 µg/L	-0.0306 ppb	11:04:20
1	Zn 213.857†	473.3	15.0	0.3524 µg/L	0.3524 ppb	11:04:40
2	Sc RADIAL	56019.8	56019.8	97.8 %		11:03:18
2	Al 396.153Radial†	-13.6	10.3	7.1428 µg/L	7.1428 ppb	11:03:18
2	Ca 317.933Radial†	195.3	12.8	11.095 µg/L	11.095 ppb	11:03:38
2	Fe 238.204 Radial†	18.1	4.8	37.606 µg/L	37.606 ppb	11:03:38
2	K 766.490 Radial†	192.8	30.6	21.044 µg/L	21.044 ppb	11:03:18
2	Mg 279.077 IEC†	12.9	2.4	21.126 µg/L	21.126 ppb	11:03:38
2	Na 589.592 Radial†	434.4	-69.6	-21.668 µg/L	-21.668 ppb	11:03:18
2	Sr 421.552†	39.1	14.6	0.1436 µg/L	0.1436 ppb	11:03:18
2	Sc 361.383	1976928.2	1976928.2	99.578 %		11:04:47
2	Y 371.029	1356046.8	1356046.8	99.388 %		11:04:47
2	Ag 328.068†	-513.3	45.6	0.3510 µg/L	0.3510 ppb	11:04:52
2	As 188.979†	1.1	-0.7	-1.2937 µg/L	-1.2937 ppb	11:05:13
2	B 249.677†	325.0	32.1	1.3049 µg/L	1.3049 ppb	11:05:13
2	Ba 233.527†	-15.2	10.7	0.2656 µg/L	0.2656 ppb	11:05:13
2	Be 313.107†	-3630.4	-45.4	-0.0283 µg/L	-0.0283 ppb	11:04:52
2	Cd 226.502†	-131.5	14.2	0.3641 µg/L	0.3641 ppb	11:05:13
2	Co 228.616†	-16.9	-8.1	-0.3790 µg/L	-0.3790 ppb	11:05:13
2	Cr 267.716†	-42.8	5.6	0.1166 µg/L	0.1166 ppb	11:05:13
2	Cu 324.752†	2470.7	37.0	0.2495 µg/L	0.2495 ppb	11:04:52
2	Mn 257.610†	-142.3	121.8	0.4001 µg/L	0.4001 ppb	11:05:13
2	Mo 202.031†	-0.8	4.1	0.4127 µg/L	0.4127 ppb	11:05:13
2	Ni 231.604†	309.4	8.3	0.4280 µg/L	0.4280 ppb	11:05:13
2	P 214.914†	30.9	4.4	8.8498 µg/L	8.8498 ppb	11:05:13
2	Pb 220.353†	94.0	7.5	1.8825 µg/L	1.8825 ppb	11:05:13

2	S 181.975 Axial†	13.5	-3.9	-16.102 µg/L	-16.102 ppb	11:05:13
2	Sb 206.836†	24.5	0.9	0.8614 µg/L	0.8614 ppb	11:05:13
2	Se 196.026†	8.8	-9.5	-13.540 µg/L	-13.540 ppb	11:05:13
2	SiO2†	1347.0	61.8	12.618 µg/L	12.618 ppb	11:04:52
2	Si 251.611†	362.0	68.5	5.3536 µg/L	5.3536 ppb	11:05:13
2	Sn 189.927†	2.6	2.3	0.9960 µg/L	0.9960 ppb	11:05:13
2	Ti 334.940†	256.9	162.6	0.3740 µg/L	0.3740 ppb	11:04:52
2	Tl 190.801†	-24.3	-0.7	-0.9183 µg/L	-0.9183 ppb	11:05:13
2	U 409.014†	-74.4	14.4	1.2221 µg/L	1.2221 ppb	11:04:52
2	V 292.402†	-2.7	43.0	0.4440 µg/L	0.4440 ppb	11:04:52
2	Zn 213.857†	467.6	5.6	0.1263 µg/L	0.1263 ppb	11:05:13
3	Sc RADIAL	55855.7	55855.7	97.5 %		11:03:44
3	Al 396.153Radial†	7.7	32.1	22.351 µg/L	22.351 ppb	11:03:44
3	Ca 317.933Radial†	193.2	11.2	9.7529 µg/L	9.7529 ppb	11:04:04
3	Fe 238.204 Radial†	17.5	4.2	33.293 µg/L	33.293 ppb	11:04:04
3	K 766.490 Radial†	94.2	-69.9	-48.130 µg/L	-48.130 ppb	11:03:44
3	Mg 279.077 IEC†	12.1	1.5	13.551 µg/L	13.551 ppb	11:04:04
3	Na 589.592 Radial†	472.3	-29.5	-9.1659 µg/L	-9.1659 ppb	11:03:44
3	Sr 421.552†	28.0	3.3	0.0324 µg/L	0.0324 ppb	11:03:44
3	Sc 361.383	1980806.4	1980806.4	99.773 %		11:05:19
3	Y 371.029	1358468.5	1358468.5	99.565 %		11:05:19
3	Ag 328.068†	-557.5	2.3	0.0220 µg/L	0.0220 ppb	11:05:24
3	As 188.979†	0.1	-1.7	-3.1393 µg/L	-3.1393 ppb	11:05:45
3	B 249.677†	314.5	21.0	0.8469 µg/L	0.8469 ppb	11:05:45
3	Ba 233.527†	-16.7	9.3	0.2302 µg/L	0.2302 ppb	11:05:45
3	Be 313.107†	-3468.5	124.0	0.0769 µg/L	0.0769 ppb	11:05:24
3	Cd 226.502†	-141.5	4.4	0.1103 µg/L	0.1103 ppb	11:05:45
3	Co 228.616†	-20.5	-11.7	-0.5420 µg/L	-0.5420 ppb	11:05:45
3	Cr 267.716†	-32.0	16.5	0.3430 µg/L	0.3430 ppb	11:05:45
3	Cu 324.752†	2487.5	49.0	0.3280 µg/L	0.3280 ppb	11:05:24
3	Mn 257.610†	-149.4	114.9	0.3776 µg/L	0.3776 ppb	11:05:45
3	Mo 202.031†	2.5	7.3	0.7421 µg/L	0.7421 ppb	11:05:45
3	Ni 231.604†	302.8	1.0	0.0534 µg/L	0.0534 ppb	11:05:45
3	P 214.914†	29.5	2.9	5.8346 µg/L	5.8346 ppb	11:05:45
3	Pb 220.353†	98.1	11.4	2.8666 µg/L	2.8666 ppb	11:05:45
3	S 181.975 Axial†	15.0	-2.4	-9.9721 µg/L	-9.9721 ppb	11:05:45
3	Sb 206.836†	25.8	2.2	2.0126 µg/L	2.0126 ppb	11:05:45
3	Se 196.026†	8.8	-9.5	-13.618 µg/L	-13.618 ppb	11:05:45
3	SiO2†	1311.4	23.5	4.7931 µg/L	4.7931 ppb	11:05:24
3	Si 251.611†	367.2	73.0	5.7039 µg/L	5.7039 ppb	11:05:45
3	Sn 189.927†	0.9	0.6	0.2379 µg/L	0.2379 ppb	11:05:45
3	Ti 334.940†	246.2	151.5	0.3488 µg/L	0.3488 ppb	11:05:24
3	Tl 190.801†	-21.7	2.0	2.6136 µg/L	2.6136 ppb	11:05:45
3	U 409.014†	-93.3	-4.4	-0.3809 µg/L	-0.3809 ppb	11:05:24
3	V 292.402†	-8.7	37.0	0.3839 µg/L	0.3839 ppb	11:05:24
3	Zn 213.857†	478.4	15.4	0.3602 µg/L	0.3602 ppb	11:05:45

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1973119.2	99.386 %	0.5109			0.51%
Sc RADIAL	56275.1	98.3 %	1.03			1.05%
Y 371.029	1353503.7	99.202 %	0.4847			0.49%
Ag 328.068†	7.6	0.0612 µg/L	0.27236	0.0612 ppb	0.27236	445.01%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	25.6	17.860 µg/L	9.3215	17.860 ppb	9.3215	52.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.1	-3.8602 µg/L	2.99273	-3.8602 ppb	2.99273	77.53%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	30.5	1.2417 µg/L	0.36725	1.2417 ppb	0.36725	29.58%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	8.7	0.2155 µg/L	0.05877	0.2155 ppb	0.05877	27.27%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	6.7	0.0040 µg/L	0.06324	0.0040 ppb	0.06324	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	12.2	10.551 µg/L	0.7060	10.551 ppb	0.7060	6.69%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	10.3	0.2637 µg/L	0.13496	0.2637 ppb	0.13496	51.18%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-7.0	-0.3243 µg/L	0.24946	-0.3243 ppb	0.24946	76.91%

Cr 267.716†	10.9	0.2269 µg/L	0.11330	0.2269 ppb	0.11330	49.93%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	52.5	0.3510 µg/L	0.11480	0.3510 ppb	0.11480	32.70%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	3.9	30.426 µg/L	8.9650	30.426 ppb	8.9650	29.47%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-13.4	-9.2074 µg/L	35.39248	-9.2074 ppb	35.39248	384.39%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.2	10.845 µg/L	11.8681	10.845 ppb	11.8681	109.43%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	113.9	0.3739 µg/L	0.02830	0.3739 ppb	0.02830	7.57%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	2.0	0.2057 µg/L	0.66455	0.2057 ppb	0.66455	323.14%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-58.7	-18.272 µg/L	7.9706	-18.272 ppb	7.9706	43.62%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	2.8	0.1470 µg/L	0.24778	0.1470 ppb	0.24778	168.52%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	3.1	6.1798 µg/L	2.51513	6.1798 ppb	2.51513	40.70%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	10.5	2.6326 µg/L	0.66476	2.6326 ppb	0.66476	25.25%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-2.9	-12.007 µg/L	3.5469	-12.007 ppb	3.5469	29.54%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	0.9	0.8663 µg/L	1.14383	0.8663 ppb	1.14383	132.03%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-6.6	-9.4099 µg/L	7.22114	-9.4099 ppb	7.22114	76.74%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	51.1	10.428 µg/L	4.9201	10.428 ppb	4.9201	47.18%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	78.7	6.1518 µg/L	1.09323	6.1518 ppb	1.09323	17.77%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	0.3	0.1268 µg/L	0.92969	0.1268 ppb	0.92969	733.18%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	11.6	0.1149 µg/L	0.07255	0.1149 ppb	0.07255	63.12%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	153.9	0.3547 µg/L	0.01713	0.3547 ppb	0.01713	4.83%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	1.0	1.3103 µg/L	1.93924	1.3103 ppb	1.93924	148.00%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	45.5	3.8730 µg/L	6.03325	3.8730 ppb	6.03325	155.78%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	25.3	0.2658 µg/L	0.25840	0.2658 ppb	0.25840	97.23%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	12.0	0.2796 µg/L	0.13281	0.2796 ppb	0.13281	47.49%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 1202030846|948032|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 401  
 Date Collected: 2/12/2010 11:05:55  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Replicate Data: 1202030846|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55570.8	55570.8	97.0 %			11:06:32
1	Al 396.153Radial†	88.3	115.2	80.253 µg/L	80.253 ppb	80.253 ppb	11:06:32
1	Ca 317.933Radial†	259.0	80.1	69.501 µg/L	69.501 ppb	69.501 ppb	11:06:52
1	Fe 238.204 Radial†	30.8	18.0	142.56 µg/L	142.56 ppb	142.56 ppb	11:06:52
1	K 766.490 Radial†	117.5	-45.4	-31.280 µg/L	-31.280 ppb	-31.280 ppb	11:06:32
1	Mg 279.077 IEC†	15.4	5.0	44.136 µg/L	44.136 ppb	44.136 ppb	11:06:52
1	Na 589.592 Radial†	494.9	-3.7	-1.1507 µg/L	-1.1507 ppb	-1.1507 ppb	11:06:32
1	Sr 421.552†	148.7	127.8	1.2613 µg/L	1.2613 ppb	1.2613 ppb	11:06:32
1	Sc 361.383	1966524.1	1966524.1	99.054 %			11:07:54
1	Y 371.029	1347214.1	1347214.1	98.741 %			11:07:54
1	Ag 328.068†	-574.0	-18.5	-0.1294 µg/L	-0.1294 ppb	-0.1294 ppb	11:08:00
1	As 188.979†	-3.9	-5.8	-10.627 µg/L	-10.627 ppb	-10.627 ppb	11:08:20
1	B 249.677†	339.5	48.5	1.9271 µg/L	1.9271 ppb	1.9271 ppb	11:08:20
1	Ba 233.527†	20.5	46.7	1.1528 µg/L	1.1528 ppb	1.1528 ppb	11:08:20
1	Be 313.107†	-2941.0	631.3	0.3905 µg/L	0.3905 ppb	0.3905 ppb	11:08:00
1	Cd 226.502†	-128.0	17.0	0.4253 µg/L	0.4253 ppb	0.4253 ppb	11:08:20
1	Co 228.616†	-12.9	-4.2	-0.2046 µg/L	-0.2046 ppb	-0.2046 ppb	11:08:20
1	Cr 267.716†	23.4	72.1	1.5016 µg/L	1.5016 ppb	1.5016 ppb	11:08:20
1	Cu 324.752†	2642.3	223.3	1.4948 µg/L	1.4948 ppb	1.4948 ppb	11:08:00
1	Mn 257.610†	750.0	1021.8	3.3398 µg/L	3.3398 ppb	3.3398 ppb	11:08:20
1	Mo 202.031†	-7.2	-2.4	-0.2373 µg/L	-0.2373 ppb	-0.2373 ppb	11:08:20
1	Ni 231.604†	310.2	10.7	0.5535 µg/L	0.5535 ppb	0.5535 ppb	11:08:20
1	P 214.914†	27.9	1.6	2.9548 µg/L	2.9548 ppb	2.9548 ppb	11:08:20
1	Pb 220.353†	87.1	1.1	0.2559 µg/L	0.2559 ppb	0.2559 ppb	11:08:20
1	S 181.975 Axial†	15.8	-1.5	-6.0758 µg/L	-6.0758 ppb	-6.0758 ppb	11:08:20
1	Sb 206.836†	26.0	2.6	2.3346 µg/L	2.3346 ppb	2.3346 ppb	11:08:20
1	Se 196.026†	8.1	-10.2	-14.301 µg/L	-14.301 ppb	-14.301 ppb	11:08:20
1	SiO2†	2598.3	1332.1	272.09 µg/L	272.09 ppb	272.09 ppb	11:08:00
1	Si 251.611†	1922.9	1646.2	128.65 µg/L	128.65 ppb	128.65 ppb	11:08:00
1	Sn 189.927†	6.0	5.7	2.4770 µg/L	2.4770 ppb	2.4770 ppb	11:08:20
1	Ti 334.940†	2145.8	2071.0	4.7797 µg/L	4.7797 ppb	4.7797 ppb	11:08:00
1	Tl 190.801†	-25.3	-1.8	-2.3401 µg/L	-2.3401 ppb	-2.3401 ppb	11:08:20
1	U 409.014†	-37.0	51.7	4.3885 µg/L	4.3885 ppb	4.3885 ppb	11:08:00
1	V 292.402†	-19.5	26.0	0.2854 µg/L	0.2854 ppb	0.2854 ppb	11:08:00
1	Zn 213.857†	649.2	191.4	4.4974 µg/L	4.4974 ppb	4.4974 ppb	11:08:20
2	Sc RADIAL	56189.1	56189.1	98.1 %			11:06:58
2	Al 396.153Radial†	77.9	103.7	72.210 µg/L	72.210 ppb	72.210 ppb	11:06:58
2	Ca 317.933Radial†	258.9	77.0	66.859 µg/L	66.859 ppb	66.859 ppb	11:07:18
2	Fe 238.204 Radial†	31.3	18.2	143.42 µg/L	143.42 ppb	143.42 ppb	11:07:18
2	K 766.490 Radial†	256.6	95.0	65.402 µg/L	65.402 ppb	65.402 ppb	11:06:58
2	Mg 279.077 IEC†	13.1	2.5	22.338 µg/L	22.338 ppb	22.338 ppb	11:07:18
2	Na 589.592 Radial†	496.5	-7.7	-2.4114 µg/L	-2.4114 ppb	-2.4114 ppb	11:06:58
2	Sr 421.552†	138.7	115.9	1.1441 µg/L	1.1441 ppb	1.1441 ppb	11:06:58
2	Sc 361.383	1945012.6	1945012.6	97.970 %			11:08:26
2	Y 371.029	1332264.3	1332264.3	97.645 %			11:08:26
2	Ag 328.068†	-532.8	17.2	0.1417 µg/L	0.1417 ppb	0.1417 ppb	11:08:32
2	As 188.979†	-1.8	-3.7	-6.7236 µg/L	-6.7236 ppb	-6.7236 ppb	11:08:52
2	B 249.677†	356.1	69.2	2.7797 µg/L	2.7797 ppb	2.7797 ppb	11:08:52
2	Ba 233.527†	20.9	47.3	1.1676 µg/L	1.1676 ppb	1.1676 ppb	11:08:52
2	Be 313.107†	-2996.0	542.3	0.3351 µg/L	0.3351 ppb	0.3351 ppb	11:08:32
2	Cd 226.502†	-124.1	19.5	0.4921 µg/L	0.4921 ppb	0.4921 ppb	11:08:52
2	Co 228.616†	3.8	12.8	0.5839 µg/L	0.5839 ppb	0.5839 ppb	11:08:52
2	Cr 267.716†	31.4	80.6	1.6776 µg/L	1.6776 ppb	1.6776 ppb	11:08:52
2	Cu 324.752†	2580.4	189.7	1.2725 µg/L	1.2725 ppb	1.2725 ppb	11:08:32
2	Mn 257.610†	747.8	1027.9	3.3605 µg/L	3.3605 ppb	3.3605 ppb	11:08:52
2	Mo 202.031†	-2.5	2.3	0.2378 µg/L	0.2378 ppb	0.2378 ppb	11:08:52
2	Ni 231.604†	321.5	25.6	1.3242 µg/L	1.3242 ppb	1.3242 ppb	11:08:52
2	P 214.914†	29.3	3.3	6.4803 µg/L	6.4803 ppb	6.4803 ppb	11:08:52
2	Pb 220.353†	96.4	11.5	2.8740 µg/L	2.8740 ppb	2.8740 ppb	11:08:52



2	S 181.975 Axial†	19.4	2.4	10.030 µg/L	10.030 ppb	11:08:52
2	Sb 206.836†	30.5	7.5	6.9283 µg/L	6.9283 ppb	11:08:52
2	Se 196.026†	23.9	6.0	8.9664 µg/L	8.9664 ppb	11:08:52
2	SiO2†	2568.8	1331.1	271.86 µg/L	271.86 ppb	11:08:32
2	Si 251.611†	1895.0	1639.2	128.10 µg/L	128.10 ppb	11:08:32
2	Sn 189.927†	3.6	3.4	1.4384 µg/L	1.4384 ppb	11:08:52
2	Ti 334.940†	2216.8	2167.3	5.0040 µg/L	5.0040 ppb	11:08:32
2	Tl 190.801†	-24.5	-1.3	-1.6080 µg/L	-1.6080 ppb	11:08:52
2	U 409.014†	-83.7	3.7	0.2901 µg/L	0.2901 ppb	11:08:32
2	V 292.402†	-13.4	32.0	0.3462 µg/L	0.3462 ppb	11:08:32
2	Zn 213.857†	650.8	200.3	4.7049 µg/L	4.7049 ppb	11:08:52
3	Sc RADIAL	56013.7	56013.7	97.8 %		11:07:23
3	Al 396.153Radial†	69.7	95.5	66.530 µg/L	66.530 ppb	11:07:23
3	Ca 317.933Radial†	252.5	71.3	61.861 µg/L	61.861 ppb	11:07:44
3	Fe 238.204 Radial†	31.2	18.2	144.02 µg/L	144.02 ppb	11:07:44
3	K 766.490 Radial†	148.1	-15.1	-10.375 µg/L	-10.375 ppb	11:07:23
3	Mg 279.077 IEC†	15.4	4.9	43.007 µg/L	43.007 ppb	11:07:44
3	Na 589.592 Radial†	486.2	-16.6	-5.1679 µg/L	-5.1679 ppb	11:07:23
3	Sr 421.552†	165.3	143.6	1.4169 µg/L	1.4169 ppb	11:07:23
3	Sc 361.383	1927813.7	1927813.7	97.104 %		11:08:58
3	Y 371.029	1320160.9	1320160.9	96.758 %		11:08:58
3	Ag 328.068†	-554.4	-9.9	-0.0600 µg/L	-0.0600 ppb	11:09:04
3	As 188.979†	-2.3	-4.2	-7.7200 µg/L	-7.7200 ppb	11:09:25
3	B 249.677†	354.2	70.5	2.8341 µg/L	2.8341 ppb	11:09:25
3	Ba 233.527†	16.2	42.7	1.0540 µg/L	1.0540 ppb	11:09:25
3	Be 313.107†	-3028.6	481.4	0.2974 µg/L	0.2974 ppb	11:09:04
3	Cd 226.502†	-135.8	6.4	0.1496 µg/L	0.1496 ppb	11:09:25
3	Co 228.616†	-0.5	8.3	0.3769 µg/L	0.3769 ppb	11:09:25
3	Cr 267.716†	9.1	57.9	1.2060 µg/L	1.2060 ppb	11:09:25
3	Cu 324.752†	2638.7	273.2	1.8242 µg/L	1.8242 ppb	11:09:04
3	Mn 257.610†	697.7	983.2	3.2144 µg/L	3.2144 ppb	11:09:25
3	Mo 202.031†	-9.5	-4.9	-0.4895 µg/L	-0.4895 ppb	11:09:25
3	Ni 231.604†	306.0	12.6	0.6544 µg/L	0.6544 ppb	11:09:25
3	P 214.914†	25.9	0.1	-0.0304 µg/L	-0.0304 ppb	11:09:25
3	Pb 220.353†	100.9	17.0	4.2483 µg/L	4.2483 ppb	11:09:25
3	S 181.975 Axial†	15.9	-1.1	-4.5472 µg/L	-4.5472 ppb	11:09:25
3	Sb 206.836†	26.3	3.4	3.0993 µg/L	3.0993 ppb	11:09:25
3	Se 196.026†	20.8	3.1	4.8119 µg/L	4.8119 ppb	11:09:25
3	SiO2†	2599.8	1386.4	283.16 µg/L	283.16 ppb	11:09:04
3	Si 251.611†	1893.2	1654.6	129.31 µg/L	129.31 ppb	11:09:04
3	Sn 189.927†	7.6	7.5	3.2341 µg/L	3.2341 ppb	11:09:25
3	Ti 334.940†	2047.8	2013.6	4.6472 µg/L	4.6472 ppb	11:09:04
3	Tl 190.801†	-21.5	1.6	2.1373 µg/L	2.1373 ppb	11:09:25
3	U 409.014†	-4.5	84.5	7.1868 µg/L	7.1868 ppb	11:09:04
3	V 292.402†	46.0	93.1	0.9642 µg/L	0.9642 ppb	11:09:04
3	Zn 213.857†	644.5	199.7	4.6933 µg/L	4.6933 ppb	11:09:25

Mean Data: 1202030846|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1946450.1	98.043 %	0.9769			1.00%
Sc RADIAL	55924.6	97.6 %	0.56			0.57%
Y 371.029	1333213.1	97.714 %	0.9932			1.02%
Ag 328.068†	-3.7	-0.0159 µg/L	0.14085	-0.0159 ppb	0.14085	885.57%
Al 396.153Radial†	104.8	72.997 µg/L	6.8953	72.997 ppb	6.8953	9.45%
As 188.979†	-4.5	-8.3568 µg/L	2.02804	-8.3568 ppb	2.02804	24.27%
B 249.677†	62.7	2.5136 µg/L	0.50870	2.5136 ppb	0.50870	20.24%
Ba 233.527†	45.6	1.1248 µg/L	0.06177	1.1248 ppb	0.06177	5.49%
Be 313.107†	551.7	0.3410 µg/L	0.04683	0.3410 ppb	0.04683	13.73%
Ca 317.933Radial†	76.1	66.074 µg/L	3.8803	66.074 ppb	3.8803	5.87%
Cd 226.502†	14.3	0.3557 µg/L	0.18151	0.3557 ppb	0.18151	51.04%
Co 228.616†	5.6	0.2521 µg/L	0.40878	0.2521 ppb	0.40878	162.18%
Cr 267.716†	70.2	1.4618 µg/L	0.23831	1.4618 ppb	0.23831	16.30%
Cu 324.752†	228.7	1.5305 µg/L	0.27759	1.5305 ppb	0.27759	18.14%
Fe 238.204 Radial†	18.1	143.34 µg/L	0.734	143.34 ppb	0.734	0.51%
K 766.490 Radial†	11.5	7.9156 µg/L	50.87014	7.9156 ppb	50.87014	642.65%
Mg 279.077 IEC†	4.1	36.494 µg/L	12.2721	36.494 ppb	12.2721	33.63%
Mn 257.610†	1011.0	3.3049 µg/L	0.07907	3.3049 ppb	0.07907	2.39%
Mo 202.031†	-1.7	-0.1630 µg/L	0.36933	-0.1630 ppb	0.36933	226.59%
Na 589.592 Radial†	-9.4	-2.9100 µg/L	2.05447	-2.9100 ppb	2.05447	70.60%

Ni 231.604†	16.3	0.8440 µg/L	0.41885	0.8440 ppb	0.41885	49.63%
P 214.914†	1.7	3.1349 µg/L	3.25909	3.1349 ppb	3.25909	103.96%
Pb 220.353†	9.9	2.4594 µg/L	2.02824	2.4594 ppb	2.02824	82.47%
S 181.975 Axial†	-0.0	-0.1975 µg/L	8.89059	-0.1975 ppb	8.89059	>999.9%
Sb 206.836†	4.5	4.1207 µg/L	2.46130	4.1207 ppb	2.46130	59.73%
Se 196.026†	-0.4	-0.1743 µg/L	12.40940	-0.1743 ppb	12.40940	>999.9%
SiO2†	1349.9	275.70 µg/L	6.460	275.70 ppb	6.460	2.34%
Si 251.611†	1646.7	128.69 µg/L	0.602	128.69 ppb	0.602	0.47%
Sn 189.927†	5.5	2.3832 µg/L	0.90148	2.3832 ppb	0.90148	37.83%
Sr 421.552†	129.1	1.2741 µg/L	0.13690	1.2741 ppb	0.13690	10.74%
Ti 334.940†	2083.9	4.8103 µg/L	0.18035	4.8103 ppb	0.18035	3.75%
Tl 190.801†	-0.5	-0.6036 µg/L	2.40174	-0.6036 ppb	2.40174	397.92%
U 409.014†	46.6	3.9551 µg/L	3.46870	3.9551 ppb	3.46870	87.70%
V 292.402†	50.3	0.5319 µg/L	0.37556	0.5319 ppb	0.37556	70.61%
Zn 213.857†	197.1	4.6319 µg/L	0.11662	4.6319 ppb	0.11662	2.52%

Sequence No.: 22

Sample ID: 1202030851|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 402

Date Collected: 2/12/2010 11:09:34

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030851|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56551.8	56551.8	98.7 %		11:10:13
1	Al 396.153Radial†	173680.0	175924.1	122530 µg/L	122530 ppb	11:10:08
1	Ca 317.933Radial†	127013.4	128449.9	111500 µg/L	111500 ppb	11:10:08
1	Fe 238.204 Radial†	29627.1	29992.0	236960 µg/L	236960 ppb	11:10:13
1	K 766.490 Radial†	73606.9	74381.3	51198 µg/L	51198 ppb	11:10:08
1	Mg 279.077 IEC†	5340.6	5398.0	47560 µg/L	47560 ppb	11:10:13
1	Na 589.592 Radial†	37412.3	37376.7	11630 µg/L	11630 ppb	11:10:08
1	Sr 421.552†	266408.1	269787.8	2662.3 µg/L	2662.3 ppb	11:10:08
1	Sc 361.383	1942331.9	1942331.9	97.835 %		11:10:48
1	Y 371.029	1368070.1	1368070.1	100.27 %		11:10:48
1	Ag 328.068†	42339.8	43837.6	357.25 µg/L	357.25 ppb	11:10:54
1	As 188.979†	673.6	686.7	1268.9 µg/L	1268.9 ppb	11:11:14
1	B 249.677†	42925.4	43580.9	1677.5 µg/L	1677.5 ppb	11:10:54
1	Ba 233.527†	90513.3	92541.9	2285.2 µg/L	2285.2 ppb	11:10:54
1	Be 313.107†	1465227.5	1501245.4	929.93 µg/L	929.93 ppb	11:10:48
1	Cd 226.502†	26361.6	27091.1	678.34 µg/L	678.34 ppb	11:10:54
1	Co 228.616†	22957.1	23473.8	1076.2 µg/L	1076.2 ppb	11:10:54
1	Cr 267.716†	133284.7	136282.1	2837.0 µg/L	2837.0 ppb	11:10:54
1	Cu 324.752†	314169.1	318675.8	2137.6 µg/L	2137.6 ppb	11:10:54
1	Mn 257.610†	1920270.2	1963020.1	6412.4 µg/L	6412.4 ppb	11:10:48
1	Mo 202.031†	6073.4	6212.7	636.04 µg/L	636.04 ppb	11:11:14
1	Ni 231.604†	29698.5	30053.1	1553.5 µg/L	1553.5 ppb	11:10:54
1	P 214.914†	4929.6	5012.1	9707.9 µg/L	9707.9 ppb	11:11:14
1	Pb 220.353†	4028.1	4030.3	1005.9 µg/L	1005.9 ppb	11:11:14
1	S 181.975 Axial†	1076.5	1082.8	4503.7 µg/L	4503.7 ppb	11:11:14
1	Sb 206.836†	2175.6	2200.0	2005.5 µg/L	2005.5 ppb	11:11:14
1	Se 196.026†	2186.6	2216.6	3757.6 µg/L	3757.6 ppb	11:11:14
1	SiO2†	218281.3	221819.7	45306 µg/L	45306 ppb	11:10:54
1	Si 251.611†	265229.5	270802.5	21163 µg/L	21163 ppb	11:10:54
1	Sn 189.927†	2818.3	2880.4	1226.4 µg/L	1226.4 ppb	11:11:14
1	Ti 334.940†	3263349.3	3335454.4	7700.0 µg/L	7700.0 ppb	11:10:48
1	Tl 190.801†	985.1	1030.6	1482.7 µg/L	1482.7 ppb	11:11:14
1	U 409.014†	-1878.8	-1831.3	-195.99 µg/L	-195.99 ppb	11:10:54
1	V 292.402†	141064.8	144231.5	1497.0 µg/L	1497.0 ppb	11:10:54
1	Zn 213.857†	289038.3	294969.1	6929.5 µg/L	6929.5 ppb	11:10:54
2	Sc RADIAL	56524.0	56524.0	98.7 %		11:10:24
2	Al 396.153Radial†	174800.4	177146.2	123390 µg/L	123390 ppb	11:10:19
2	Ca 317.933Radial†	127542.5	129049.6	112020 µg/L	112020 ppb	11:10:19
2	Fe 238.204 Radial†	29561.0	29939.9	236550 µg/L	236550 ppb	11:10:24
2	K 766.490 Radial†	73933.1	74748.5	51451 µg/L	51451 ppb	11:10:19
2	Mg 279.077 IEC†	5328.3	5388.3	47474 µg/L	47474 ppb	11:10:24
2	Na 589.592 Radial†	37614.4	37600.2	11700 µg/L	11700 ppb	11:10:19
2	Sr 421.552†	267863.5	271395.7	2678.2 µg/L	2678.2 ppb	11:10:19
2	Sc 361.383	1958912.2	1958912.2	98.671 %		11:11:21
2	Y 371.029	1378729.2	1378729.2	101.05 %		11:11:21
2	Ag 328.068†	42252.5	43382.8	353.66 µg/L	353.66 ppb	11:11:27
2	As 188.979†	665.3	672.4	1242.6 µg/L	1242.6 ppb	11:11:48
2	B 249.677†	42846.6	43129.7	1659.0 µg/L	1659.0 ppb	11:11:27
2	Ba 233.527†	90482.5	91727.7	2265.1 µg/L	2265.1 ppb	11:11:27
2	Be 313.107†	1468664.7	1492052.9	924.24 µg/L	924.24 ppb	11:11:21
2	Cd 226.502†	26271.6	26771.8	670.08 µg/L	670.08 ppb	11:11:27
2	Co 228.616†	22940.3	23258.2	1066.3 µg/L	1066.3 ppb	11:11:27
2	Cr 267.716†	132697.3	134533.7	2800.6 µg/L	2800.6 ppb	11:11:27
2	Cu 324.752†	313281.4	315058.1	2113.7 µg/L	2113.7 ppb	11:11:27
2	Mn 257.610†	1926107.8	1952323.6	6377.6 µg/L	6377.6 ppb	11:11:21
2	Mo 202.031†	6044.1	6130.4	627.72 µg/L	627.72 ppb	11:11:48
2	Ni 231.604†	29625.6	29722.3	1536.4 µg/L	1536.4 ppb	11:11:27
2	P 214.914†	4908.4	4947.9	9582.1 µg/L	9582.1 ppb	11:11:48
2	Pb 220.353†	4014.1	3981.3	993.72 µg/L	993.72 ppb	11:11:48

2	S 181.975 Axial†	1064.9	1061.8	4416.2 µg/L	4416.2 ppb	11:11:48
2	Sb 206.836†	2161.1	2166.5	1974.7 µg/L	1974.7 ppb	11:11:48
2	Se 196.026†	2209.8	2221.3	3763.1 µg/L	3763.1 ppb	11:11:48
2	SiO2†	217811.2	219454.9	44823 µg/L	44823 ppb	11:11:27
2	Si 251.611†	264260.2	267525.6	20907 µg/L	20907 ppb	11:11:27
2	Sn 189.927†	2834.4	2872.3	1223.0 µg/L	1223.0 ppb	11:11:48
2	Ti 334.940†	3272868.8	3316869.9	7657.1 µg/L	7657.1 ppb	11:11:21
2	Tl 190.801†	979.6	1016.5	1463.6 µg/L	1463.6 ppb	11:11:48
2	U 409.014†	-1878.5	-1814.7	-194.55 µg/L	-194.55 ppb	11:11:27
2	V 292.402†	140655.1	142595.9	1480.2 µg/L	1480.2 ppb	11:11:27
2	Zn 213.857†	288414.2	291836.1	6855.8 µg/L	6855.8 ppb	11:11:27
3	Sc RADIAL	56867.2	56867.2	99.3 %		11:10:35
3	Al 396.153Radial†	175061.1	176339.8	122820 µg/L	122820 ppb	11:10:30
3	Ca 317.933Radial†	127663.5	128391.5	111450 µg/L	111450 ppb	11:10:30
3	Fe 238.204 Radial†	29879.4	30079.9	237650 µg/L	237650 ppb	11:10:35
3	K 766.490 Radial†	74112.0	74476.5	51263 µg/L	51263 ppb	11:10:30
3	Mg 279.077 IEC†	5375.3	5403.0	47603 µg/L	47603 ppb	11:10:35
3	Na 589.592 Radial†	37697.1	37453.5	11654 µg/L	11654 ppb	11:10:30
3	Sr 421.552†	268402.1	270300.0	2667.3 µg/L	2667.3 ppb	11:10:30
3	Sc 361.383	1954865.9	1954865.9	98.467 %		11:11:55
3	Y 371.029	1376579.2	1376579.2	100.89 %		11:11:55
3	Ag 328.068†	42260.6	43479.7	354.49 µg/L	354.49 ppb	11:12:01
3	As 188.979†	654.4	662.8	1225.0 µg/L	1225.0 ppb	11:12:21
3	B 249.677†	42837.6	43210.4	1661.8 µg/L	1661.8 ppb	11:12:01
3	Ba 233.527†	90312.4	91744.7	2265.6 µg/L	2265.6 ppb	11:12:01
3	Be 313.107†	1445090.9	1471192.9	911.31 µg/L	911.31 ppb	11:11:55
3	Cd 226.502†	26227.4	26781.9	670.22 µg/L	670.22 ppb	11:12:01
3	Co 228.616†	22869.0	23234.0	1065.4 µg/L	1065.4 ppb	11:12:01
3	Cr 267.716†	132700.8	134815.7	2806.4 µg/L	2806.4 ppb	11:12:01
3	Cu 324.752†	313558.6	315996.9	2120.0 µg/L	2120.0 ppb	11:12:01
3	Mn 257.610†	1890721.8	1920427.0	6274.0 µg/L	6274.0 ppb	11:11:55
3	Mo 202.031†	6051.3	6150.4	629.79 µg/L	629.79 ppb	11:12:21
3	Ni 231.604†	29576.2	29734.3	1537.0 µg/L	1537.0 ppb	11:12:01
3	P 214.914†	4923.9	4974.0	9632.7 µg/L	9632.7 ppb	11:12:21
3	Pb 220.353†	4013.2	3988.8	995.54 µg/L	995.54 ppb	11:12:21
3	S 181.975 Axial†	1076.3	1075.6	4473.4 µg/L	4473.4 ppb	11:12:21
3	Sb 206.836†	2172.4	2182.5	1989.5 µg/L	1989.5 ppb	11:12:21
3	Se 196.026†	2198.5	2214.4	3756.3 µg/L	3756.3 ppb	11:12:21
3	SiO2†	217841.8	219942.9	44923 µg/L	44923 ppb	11:12:01
3	Si 251.611†	264468.4	268291.4	20967 µg/L	20967 ppb	11:12:01
3	Sn 189.927†	2828.5	2872.3	1222.8 µg/L	1222.8 ppb	11:12:21
3	Ti 334.940†	3221977.3	3272051.5	7553.6 µg/L	7553.6 ppb	11:11:55
3	Tl 190.801†	975.0	1013.9	1458.9 µg/L	1458.9 ppb	11:12:21
3	U 409.014†	-1966.9	-1908.4	-202.66 µg/L	-202.66 ppb	11:12:01
3	V 292.402†	140641.4	142877.0	1483.2 µg/L	1483.2 ppb	11:12:01
3	Zn 213.857†	288142.2	292164.8	6863.5 µg/L	6863.5 ppb	11:12:01

Mean Data: 1202030851|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1952036.6	98.324 %	0.4354			0.44%
Sc RADIAL	56647.7	98.9 %	0.33			0.34%
Y 371.029	1374459.5	100.74 %	0.413			0.41%
Ag 328.068†	43566.7	355.13 µg/L	1.879	355.13 ppb	1.879	0.53%
Al 396.153Radial†	176470.0	122910 µg/L	432.9	122910 ppb	432.9	0.35%
As 188.979†	674.0	1245.5 µg/L	22.09	1245.5 ppb	22.09	1.77%
B 249.677†	43307.0	1666.1 µg/L	9.95	1666.1 ppb	9.95	0.60%
Ba 233.527†	92004.8	2272.0 µg/L	11.49	2272.0 ppb	11.49	0.51%
Be 313.107†	1488163.7	921.83 µg/L	9.540	921.83 ppb	9.540	1.03%
Ca 317.933Radial†	128630.3	111660 µg/L	316.2	111660 ppb	316.2	0.28%
Cd 226.502†	26881.6	672.88 µg/L	4.731	672.88 ppb	4.731	0.70%
Co 228.616†	23322.0	1069.3 µg/L	6.02	1069.3 ppb	6.02	0.56%
Cr 267.716†	135210.5	2814.7 µg/L	19.54	2814.7 ppb	19.54	0.69%
Cu 324.752†	316576.9	2123.8 µg/L	12.41	2123.8 ppb	12.41	0.58%
Fe 238.204 Radial†	30003.9	237050 µg/L	558.7	237050 ppb	558.7	0.24%
K 766.490 Radial†	74535.4	51304 µg/L	131.2	51304 ppb	131.2	0.26%
Mg 279.077 IEC†	5396.4	47545 µg/L	65.8	47545 ppb	65.8	0.14%
Mn 257.610†	1945256.9	6354.7 µg/L	71.99	6354.7 ppb	71.99	1.13%
Mo 202.031†	6164.5	631.18 µg/L	4.333	631.18 ppb	4.333	0.69%
Na 589.592 Radial†	37476.8	11661 µg/L	35.3	11661 ppb	35.3	0.30%

Ni 231.604†	29836.6	1542.3 µg/L	9.68	1542.3 ppb	9.68	0.63%
P 214.914†	4978.0	9640.9 µg/L	63.31	9640.9 ppb	63.31	0.66%
Pb 220.353†	4000.1	998.39 µg/L	6.583	998.39 ppb	6.583	0.66%
S 181.975 Axial†	1073.4	4464.4 µg/L	44.42	4464.4 ppb	44.42	0.99%
Sb 206.836†	2183.0	1989.9 µg/L	15.42	1989.9 ppb	15.42	0.77%
Se 196.026†	2217.4	3759.0 µg/L	3.60	3759.0 ppb	3.60	0.10%
SiO2†	220405.8	45017 µg/L	255.0	45017 ppb	255.0	0.57%
Si 251.611†	268873.2	21013 µg/L	134.0	21013 ppb	134.0	0.64%
Sn 189.927†	2875.0	1224.1 µg/L	2.03	1224.1 ppb	2.03	0.17%
Sr 421.552†	270494.5	2669.3 µg/L	8.11	2669.3 ppb	8.11	0.30%
Ti 334.940†	3308125.3	7636.9 µg/L	75.27	7636.9 ppb	75.27	0.99%
Tl 190.801†	1020.4	1468.4 µg/L	12.62	1468.4 ppb	12.62	0.86%
U 409.014†	-1851.5	-197.73 µg/L	4.328	-197.73 ppb	4.328	2.19%
V 292.402†	143234.8	1486.8 µg/L	8.92	1486.8 ppb	8.92	0.60%
Zn 213.857†	292990.0	6883.0 µg/L	40.53	6883.0 ppb	40.53	0.59%

Sequence No.: 23

Sample ID: 245688001|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 403

Date Collected: 2/12/2010 11:12:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688001|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56919.1	56919.1	99.4 %		11:13:03
1	Al 396.153Radial†	58105.9	58493.1	40746 µg/L	40746 ppb	11:13:03
1	Ca 317.933Radial†	10423.4	10301.7	8942.5 µg/L	8942.5 ppb	11:13:23
1	Fe 238.204 Radial†	9184.5	9228.1	72903 µg/L	72903 ppb	11:13:23
1	K 766.490 Radial†	12092.8	12001.8	8261.1 µg/L	8261.1 ppb	11:13:03
1	Mg 279.077 IEC†	902.9	897.7	7871.8 µg/L	7871.8 ppb	11:13:23
1	Na 589.592 Radial†	1711.4	1208.3	375.98 µg/L	375.98 ppb	11:13:03
1	Sr 421.552†	11019.8	11063.2	109.17 µg/L	109.17 ppb	11:13:03
1	Sc 361.383	1936201.0	1936201.0	97.527 %		11:14:27
1	Y 371.029	1350129.1	1350129.1	98.954 %		11:14:27
1	Ag 328.068†	-1499.2	-976.2	-1.8663 µg/L	-1.8663 ppb	11:14:32
1	As 188.979†	10.3	8.7	19.799 µg/L	19.799 ppb	11:14:53
1	B 249.677†	1003.5	734.7	-7.6089 µg/L	-7.6089 ppb	11:14:32
1	Ba 233.527†	21639.2	22214.0	548.18 µg/L	548.18 ppb	11:14:32
1	Be 313.107†	7812.6	11611.1	6.0772 µg/L	6.0772 ppb	11:14:32
1	Cd 226.502†	142.0	291.8	-0.6066 µg/L	-0.6066 ppb	11:14:53
1	Co 228.616†	1024.6	1059.5	43.046 µg/L	43.046 ppb	11:14:53
1	Cr 267.716†	4125.6	4278.8	89.133 µg/L	89.133 ppb	11:14:32
1	Cu 324.752†	11319.5	9162.4	70.646 µg/L	70.646 ppb	11:14:32
1	Mn 257.610†	846078.5	867800.7	2831.1 µg/L	2831.1 ppb	11:14:27
1	Mo 202.031†	35.8	41.5	6.9619 µg/L	6.9619 ppb	11:14:53
1	Ni 231.604†	1287.8	1018.0	53.450 µg/L	53.450 ppb	11:14:53
1	P 214.914†	344.6	326.7	602.28 µg/L	602.28 ppb	11:14:53
1	Pb 220.353†	484.6	410.0	102.14 µg/L	102.14 ppb	11:14:53
1	S 181.975 Axial†	147.5	133.8	556.67 µg/L	556.67 ppb	11:14:53
1	Sb 206.836†	36.4	13.7	10.947 µg/L	10.947 ppb	11:14:53
1	Se 196.026†	-28.7	-47.8	121.08 µg/L	121.08 ppb	11:14:53
1	SiO2†	170019.5	173040.4	35343 µg/L	35343 ppb	11:14:32
1	Si 251.611†	205479.1	210395.2	16442 µg/L	16442 ppb	11:14:27
1	Sn 189.927†	-22.2	-23.0	-16.857 µg/L	-16.857 ppb	11:14:53
1	Ti 334.940†	1261463.7	1293360.5	2986.1 µg/L	2986.1 ppb	11:14:27
1	Tl 190.801†	-53.7	-31.3	8.7765 µg/L	8.7765 ppb	11:14:53
1	U 409.014†	-537.4	-461.9	-50.086 µg/L	-50.086 ppb	11:14:32
1	V 292.402†	13839.1	14235.7	152.67 µg/L	152.67 ppb	11:14:32
1	Zn 213.857†	9255.5	9026.2	208.55 µg/L	208.55 ppb	11:14:32
2	Sc RADIAL	56279.0	56279.0	98.3 %		11:13:29
2	Al 396.153Radial†	57616.9	58660.5	40862 µg/L	40862 ppb	11:13:29
2	Ca 317.933Radial†	10403.6	10400.8	9028.5 µg/L	9028.5 ppb	11:13:49
2	Fe 238.204 Radial†	9215.6	9365.0	73984 µg/L	73984 ppb	11:13:49
2	K 766.490 Radial†	12008.3	12054.3	8297.1 µg/L	8297.1 ppb	11:13:29
2	Mg 279.077 IEC†	905.8	911.0	7988.3 µg/L	7988.3 ppb	11:13:49
2	Na 589.592 Radial†	1670.7	1186.5	369.19 µg/L	369.19 ppb	11:13:29
2	Sr 421.552†	10897.5	11064.9	109.19 µg/L	109.19 ppb	11:13:29
2	Sc 361.383	1946738.1	1946738.1	98.057 %		11:15:00
2	Y 371.029	1357913.3	1357913.3	99.525 %		11:15:00
2	Ag 328.068†	-1518.0	-987.0	-1.8904 µg/L	-1.8904 ppb	11:15:06
2	As 188.979†	10.9	9.2	20.807 µg/L	20.807 ppb	11:15:26
2	B 249.677†	1000.3	725.8	-8.5416 µg/L	-8.5416 ppb	11:15:06
2	Ba 233.527†	21524.0	21976.5	542.32 µg/L	542.32 ppb	11:15:06
2	Be 313.107†	8089.6	11850.3	6.2208 µg/L	6.2208 ppb	11:15:06
2	Cd 226.502†	140.1	289.0	-0.8008 µg/L	-0.8008 ppb	11:15:26
2	Co 228.616†	1033.5	1062.9	43.176 µg/L	43.176 ppb	11:15:26
2	Cr 267.716†	4118.6	4248.7	88.506 µg/L	88.506 ppb	11:15:06
2	Cu 324.752†	11320.3	9100.4	70.387 µg/L	70.387 ppb	11:15:06
2	Mn 257.610†	855290.9	872499.8	2846.5 µg/L	2846.5 ppb	11:15:00
2	Mo 202.031†	31.0	36.5	6.4954 µg/L	6.4954 ppb	11:15:26
2	Ni 231.604†	1298.1	1021.3	53.636 µg/L	53.636 ppb	11:15:26
2	P 214.914†	346.8	327.1	602.22 µg/L	602.22 ppb	11:15:26
2	Pb 220.353†	478.4	401.0	99.844 µg/L	99.844 ppb	11:15:26

2	S 181.975 Axial†	144.7	130.2	541.36 µg/L	541.36 ppb	11:15:26
2	Sb 206.836†	38.0	15.1	12.276 µg/L	12.276 ppb	11:15:26
2	Se 196.026†	-27.8	-46.7	125.48 µg/L	125.48 ppb	11:15:26
2	SiO2†	169405.8	171471.0	35022 µg/L	35022 ppb	11:15:06
2	Si 251.611†	207622.8	211441.0	16524 µg/L	16524 ppb	11:15:00
2	Sn 189.927†	-24.2	-25.0	-17.810 µg/L	-17.810 ppb	11:15:26
2	Ti 334.940†	1273970.0	1299113.5	2999.3 µg/L	2999.3 ppb	11:15:00
2	Tl 190.801†	-55.7	-33.1	6.7789 µg/L	6.7789 ppb	11:15:26
2	U 409.014†	-551.1	-472.9	-51.186 µg/L	-51.186 ppb	11:15:06
2	V 292.402†	13766.0	14084.4	151.26 µg/L	151.26 ppb	11:15:06
2	Zn 213.857†	9268.5	8988.1	207.59 µg/L	207.59 ppb	11:15:06
3	Sc RADIAL	57017.7	57017.7	99.6 %		11:13:54
3	Al 396.153Radial†	58832.0	59121.3	41183 µg/L	41183 ppb	11:13:54
3	Ca 317.933Radial†	10517.1	10377.6	9008.4 µg/L	9008.4 ppb	11:14:15
3	Fe 238.204 Radial†	9277.5	9305.6	73515 µg/L	73515 ppb	11:14:15
3	K 766.490 Radial†	12229.3	12117.9	8340.9 µg/L	8340.9 ppb	11:13:54
3	Mg 279.077 IEC†	916.8	910.1	7980.4 µg/L	7980.4 ppb	11:14:15
3	Na 589.592 Radial†	1726.5	1220.5	379.77 µg/L	379.77 ppb	11:13:54
3	Sr 421.552†	11166.5	11191.4	110.44 µg/L	110.44 ppb	11:13:54
3	Sc 361.383	1941834.8	1941834.8	97.810 %		11:15:33
3	Y 371.029	1352935.2	1352935.2	99.160 %		11:15:33
3	Ag 328.068†	-1406.3	-876.7	-1.0988 µg/L	-1.0988 ppb	11:15:39
3	As 188.979†	4.1	2.4	8.1819 µg/L	8.1819 ppb	11:15:59
3	B 249.677†	971.0	698.5	-9.4237 µg/L	-9.4237 ppb	11:15:39
3	Ba 233.527†	21120.2	21619.1	533.50 µg/L	533.50 ppb	11:15:39
3	Be 313.107†	8623.0	12416.4	6.5839 µg/L	6.5839 ppb	11:15:39
3	Cd 226.502†	147.4	296.8	-0.5472 µg/L	-0.5472 ppb	11:15:59
3	Co 228.616†	990.6	1021.6	41.321 µg/L	41.321 ppb	11:15:59
3	Cr 267.716†	4072.2	4212.0	87.739 µg/L	87.739 ppb	11:15:39
3	Cu 324.752†	11324.1	9133.4	70.540 µg/L	70.540 ppb	11:15:39
3	Mn 257.610†	844574.5	863746.0	2818.0 µg/L	2818.0 ppb	11:15:33
3	Mo 202.031†	40.4	46.1	7.4502 µg/L	7.4502 ppb	11:15:59
3	Ni 231.604†	1255.3	980.9	51.543 µg/L	51.543 ppb	11:15:59
3	P 214.914†	322.3	302.9	554.25 µg/L	554.25 ppb	11:15:59
3	Pb 220.353†	463.4	386.9	96.347 µg/L	96.347 ppb	11:15:59
3	S 181.975 Axial†	139.4	125.1	520.25 µg/L	520.25 ppb	11:15:59
3	Sb 206.836†	35.5	12.6	9.9407 µg/L	9.9407 ppb	11:15:59
3	Se 196.026†	-14.0	-32.7	144.33 µg/L	144.33 ppb	11:15:59
3	SiO2†	166318.8	168751.1	34467 µg/L	34467 ppb	11:15:39
3	Si 251.611†	205868.0	210181.6	16426 µg/L	16426 ppb	11:15:33
3	Sn 189.927†	-21.2	-22.0	-16.460 µg/L	-16.460 ppb	11:15:59
3	Ti 334.940†	1258111.6	1286180.7	2969.5 µg/L	2969.5 ppb	11:15:33
3	Tl 190.801†	-48.4	-25.8	16.029 µg/L	16.029 ppb	11:15:59
3	U 409.014†	-451.7	-372.7	-42.567 µg/L	-42.567 ppb	11:15:39
3	V 292.402†	13502.6	13850.5	148.86 µg/L	148.86 ppb	11:15:39
3	Zn 213.857†	9223.2	8965.7	207.09 µg/L	207.09 ppb	11:15:39

Mean Data: 245688001|948032|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1941591.3	97.798 %		0.2656			0.27%
Sc RADIAL	56738.6	99.1 %		0.70			0.71%
Y 371.029	1353659.2	99.213 %		0.2889			0.29%
Ag 328.068†	-946.6	-1.6185 µg/L		0.45022	-1.6185 ppb	0.45022	27.82%
Al 396.153Radial†	58758.3	40931 µg/L		226.6	40931 ppb	226.6	0.55%
As 188.979†	6.8	16.263 µg/L		7.0162	16.263 ppb	7.0162	43.14%
B 249.677†	719.7	-8.5247 µg/L		0.90750	-8.5247 ppb	0.90750	10.65%
Ba 233.527†	21936.5	541.34 µg/L		7.390	541.34 ppb	7.390	1.37%
Be 313.107†	11959.2	6.2940 µg/L		0.26118	6.2940 ppb	0.26118	4.15%
Ca 317.933Radial†	10360.0	8993.2 µg/L		45.00	8993.2 ppb	45.00	0.50%
Cd 226.502†	292.6	-0.6516 µg/L		0.13261	-0.6516 ppb	0.13261	20.35%
Co 228.616†	1048.0	42.514 µg/L		1.0352	42.514 ppb	1.0352	2.43%
Cr 267.716†	4246.5	88.460 µg/L		0.6981	88.460 ppb	0.6981	0.79%
Cu 324.752†	9132.1	70.524 µg/L		0.1303	70.524 ppb	0.1303	0.18%
Fe 238.204 Radial†	9299.6	73467 µg/L		542.0	73467 ppb	542.0	0.74%
K 766.490 Radial†	12058.0	8299.7 µg/L		40.00	8299.7 ppb	40.00	0.48%
Mg 279.077 IEC†	906.3	7946.8 µg/L		65.10	7946.8 ppb	65.10	0.82%
Mn 257.610†	868015.5	2831.8 µg/L		14.28	2831.8 ppb	14.28	0.50%
Mo 202.031†	41.4	6.9692 µg/L		0.47741	6.9692 ppb	0.47741	6.85%
Na 589.592 Radial†	1205.1	374.98 µg/L		5.359	374.98 ppb	5.359	1.43%

Ni 231.604†	1006.7	52.876 µg/L	1.1580	52.876 ppb	1.1580	2.19%
P 214.914†	318.9	586.25 µg/L	27.713	586.25 ppb	27.713	4.73%
Pb 220.353†	399.3	99.443 µg/L	2.9159	99.443 ppb	2.9159	2.93%
S 181.975 Axial†	129.7	539.43 µg/L	18.285	539.43 ppb	18.285	3.39%
Sb 206.836†	13.8	11.054 µg/L	1.1713	11.054 ppb	1.1713	10.60%
Se 196.026†	-42.4	130.30 µg/L	12.351	130.30 ppb	12.351	9.48%
SiO2†	171087.5	34944 µg/L	443.3	34944 ppb	443.3	1.27%
Si 251.611†	210672.6	16464 µg/L	52.7	16464 ppb	52.7	0.32%
Sn 189.927†	-23.3	-17.042 µg/L	0.6936	-17.042 ppb	0.6936	4.07%
Sr 421.552†	11106.5	109.60 µg/L	0.726	109.60 ppb	0.726	0.66%
Ti 334.940†	1292884.9	2985.0 µg/L	14.96	2985.0 ppb	14.96	0.50%
Tl 190.801†	-30.1	10.528 µg/L	4.8676	10.528 ppb	4.8676	46.23%
U 409.014†	-435.8	-47.947 µg/L	4.6911	-47.947 ppb	4.6911	9.78%
V 292.402†	14056.9	150.93 µg/L	1.928	150.93 ppb	1.928	1.28%
Zn 213.857†	8993.3	207.74 µg/L	0.739	207.74 ppb	0.739	0.36%



Sequence No.: 24

Sample ID: 1202030847|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 404

Date Collected: 2/12/2010 11:16:08

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030847|948032|1

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55502.2	55502.2	96.9 %		11:16:41
1	Al 396.153Radial†	47753.4	49302.6	34344 µg/L	34344 ppb	11:16:41
1	Ca 317.933Radial†	7323.6	7370.6	6398.1 µg/L	6398.1 ppb	11:17:01
1	Fe 238.204 Radial†	8327.2	8579.4	67778 µg/L	67778 ppb	11:17:01
1	K 766.490 Radial†	10192.5	10351.5	7125.1 µg/L	7125.1 ppb	11:16:41
1	Mg 279.077 IEC†	726.1	738.4	6466.6 µg/L	6466.6 ppb	11:17:01
1	Na 589.592 Radial†	1519.9	1054.6	328.16 µg/L	328.16 ppb	11:16:41
1	Sr 421.552†	8241.2	8478.9	83.671 µg/L	83.671 ppb	11:16:41
1	Sc 361.383	1949052.0	1949052.0	98.174 %		11:18:05
1	Y 371.029	1353444.5	1353444.5	99.197 %		11:18:05
1	Ag 328.068†	-1442.7	-908.5	-1.8211 µg/L	-1.8211 ppb	11:18:11
1	As 188.979†	4.1	2.4	7.9159 µg/L	7.9159 ppb	11:18:31
1	B 249.677†	861.0	582.8	-11.198 µg/L	-11.198 ppb	11:18:11
1	Ba 233.527†	15622.2	15938.8	393.36 µg/L	393.36 ppb	11:18:11
1	Be 313.107†	5278.9	8977.5	4.5111 µg/L	4.5111 ppb	11:18:11
1	Cd 226.502†	93.3	241.2	-1.3490 µg/L	-1.3490 ppb	11:18:31
1	Co 228.616†	795.2	818.8	32.240 µg/L	32.240 ppb	11:18:31
1	Cr 267.716†	4145.9	4271.6	88.969 µg/L	88.969 ppb	11:18:11
1	Cu 324.752†	7890.7	5593.3	46.362 µg/L	46.362 ppb	11:18:11
1	Mn 257.610†	657563.1	670058.7	2187.5 µg/L	2187.5 ppb	11:18:05
1	Mo 202.031†	26.8	32.1	5.8173 µg/L	5.8173 ppb	11:18:31
1	Ni 231.604†	1159.3	878.4	46.190 µg/L	46.190 ppb	11:18:31
1	P 214.914†	260.9	239.2	431.27 µg/L	431.27 ppb	11:18:31
1	Pb 220.353†	374.4	294.5	73.077 µg/L	73.077 ppb	11:18:31
1	S 181.975 Axial†	97.1	81.5	338.79 µg/L	338.79 ppb	11:18:31
1	Sb 206.836†	30.4	7.2	5.1970 µg/L	5.1970 ppb	11:18:31
1	Se 196.026†	-21.1	-39.8	120.50 µg/L	120.50 ppb	11:18:31
1	SiO2†	150205.4	151708.3	30986 µg/L	30986 ppb	11:18:11
1	Si 251.611†	185444.3	188598.6	14739 µg/L	14739 ppb	11:18:05
1	Sn 189.927†	-23.5	-24.2	-16.972 µg/L	-16.972 ppb	11:18:31
1	Ti 334.940†	1191253.3	1213315.8	2801.3 µg/L	2801.3 ppb	11:18:05
1	Tl 190.801†	-55.3	-32.6	1.8645 µg/L	1.8645 ppb	11:18:31
1	U 409.014†	-519.0	-439.5	-47.311 µg/L	-47.311 ppb	11:18:11
1	V 292.402†	11785.9	12050.8	129.98 µg/L	129.98 ppb	11:18:11
1	Zn 213.857†	9119.7	8825.3	204.20 µg/L	204.20 ppb	11:18:11
2	Sc RADIAL	56183.3	56183.3	98.1 %		11:17:07
2	Al 396.153Radial†	48209.1	49169.8	34251 µg/L	34251 ppb	11:17:07
2	Ca 317.933Radial†	7349.4	7305.3	6341.4 µg/L	6341.4 ppb	11:17:27
2	Fe 238.204 Radial†	8362.1	8510.8	67236 µg/L	67236 ppb	11:17:27
2	K 766.490 Radial†	10322.1	10356.1	7128.3 µg/L	7128.3 ppb	11:17:07
2	Mg 279.077 IEC†	727.2	730.5	6396.8 µg/L	6396.8 ppb	11:17:27
2	Na 589.592 Radial†	1543.4	1059.6	329.72 µg/L	329.72 ppb	11:17:07
2	Sr 421.552†	8298.9	8434.7	83.234 µg/L	83.234 ppb	11:17:07
2	Sc 361.383	1943870.4	1943870.4	97.913 %		11:18:38
2	Y 371.029	1348296.0	1348296.0	98.820 %		11:18:38
2	Ag 328.068†	-1371.1	-839.2	-1.3203 µg/L	-1.3203 ppb	11:18:44
2	As 188.979†	3.8	2.0	7.3077 µg/L	7.3077 ppb	11:19:04
2	B 249.677†	874.5	598.8	-10.253 µg/L	-10.253 ppb	11:18:44
2	Ba 233.527†	15777.5	16139.8	398.32 µg/L	398.32 ppb	11:18:44
2	Be 313.107†	5306.9	9020.4	4.5423 µg/L	4.5423 ppb	11:18:44
2	Cd 226.502†	101.1	249.5	-1.0737 µg/L	-1.0737 ppb	11:19:04
2	Co 228.616†	796.1	821.9	32.408 µg/L	32.408 ppb	11:19:04
2	Cr 267.716†	4160.4	4297.7	89.513 µg/L	89.513 ppb	11:18:44
2	Cu 324.752†	7967.8	5693.5	46.948 µg/L	46.948 ppb	11:18:44
2	Mn 257.610†	653155.4	667342.5	2178.6 µg/L	2178.6 ppb	11:18:38
2	Mo 202.031†	30.7	36.2	6.2122 µg/L	6.2122 ppb	11:19:04
2	Ni 231.604†	1146.6	868.5	45.673 µg/L	45.673 ppb	11:19:04
2	P 214.914†	253.5	232.3	417.87 µg/L	417.87 ppb	11:19:04
2	Pb 220.353†	366.0	286.9	71.178 µg/L	71.178 ppb	11:19:04

2	S 181.975 Axial†	100.9	85.6	355.93 µg/L	355.93 ppb	11:19:04
2	Sb 206.836†	30.7	7.6	5.5729 µg/L	5.5729 ppb	11:19:04
2	Se 196.026†	-15.7	-34.4	126.91 µg/L	126.91 ppb	11:19:04
2	SiO2†	151406.6	153343.0	31320 µg/L	31320 ppb	11:18:44
2	Si 251.611†	184264.6	187897.3	14684 µg/L	14684 ppb	11:18:38
2	Sn 189.927†	-21.8	-22.6	-16.209 µg/L	-16.209 ppb	11:19:04
2	Ti 334.940†	1183051.9	1208174.1	2789.4 µg/L	2789.4 ppb	11:18:38
2	Tl 190.801†	-49.2	-26.6	9.6696 µg/L	9.6696 ppb	11:19:04
2	U 409.014†	-430.6	-350.7	-39.654 µg/L	-39.654 ppb	11:18:44
2	V 292.402†	11894.1	12193.3	131.36 µg/L	131.36 ppb	11:18:44
2	Zn 213.857†	9167.4	8898.7	205.96 µg/L	205.96 ppb	11:18:44
3	Sc RADIAL	56573.5	56573.5	98.8 %		11:17:33
3	Al 396.153Radial†	47547.4	48160.9	33548 µg/L	33548 ppb	11:17:33
3	Ca 317.933Radial†	7332.4	7236.4	6281.6 µg/L	6281.6 ppb	11:17:53
3	Fe 238.204 Radial†	8351.4	8441.2	66685 µg/L	66685 ppb	11:17:53
3	K 766.490 Radial†	10106.3	10065.0	6927.9 µg/L	6927.9 ppb	11:17:33
3	Mg 279.077 IEC†	726.1	724.2	6342.0 µg/L	6342.0 ppb	11:17:53
3	Na 589.592 Radial†	1541.5	1046.8	325.73 µg/L	325.73 ppb	11:17:33
3	Sr 421.552†	8231.3	8307.9	81.983 µg/L	81.983 ppb	11:17:33
3	Sc 361.383	1965448.6	1965448.6	99.000 %		11:19:11
3	Y 371.029	1363456.7	1363456.7	99.931 %		11:19:11
3	Ag 328.068†	-1381.1	-834.0	-1.3554 µg/L	-1.3554 ppb	11:19:17
3	As 188.979†	4.9	3.1	9.2179 µg/L	9.2179 ppb	11:19:38
3	B 249.677†	837.8	552.0	-11.904 µg/L	-11.904 ppb	11:19:17
3	Ba 233.527†	15310.4	15491.1	382.31 µg/L	382.31 ppb	11:19:17
3	Be 313.107†	5099.2	8751.0	4.4060 µg/L	4.4060 ppb	11:19:17
3	Cd 226.502†	81.7	228.7	-1.5554 µg/L	-1.5554 ppb	11:19:38
3	Co 228.616†	743.8	760.2	29.705 µg/L	29.705 ppb	11:19:38
3	Cr 267.716†	3964.4	4053.0	84.418 µg/L	84.418 ppb	11:19:17
3	Cu 324.752†	7783.7	5418.1	45.053 µg/L	45.053 ppb	11:19:17
3	Mn 257.610†	642423.5	649178.5	2119.4 µg/L	2119.4 ppb	11:19:11
3	Mo 202.031†	17.6	22.6	4.8156 µg/L	4.8156 ppb	11:19:38
3	Ni 231.604†	1102.0	810.6	42.679 µg/L	42.679 ppb	11:19:38
3	P 214.914†	254.9	230.9	415.40 µg/L	415.40 ppb	11:19:38
3	Pb 220.353†	377.9	294.8	73.163 µg/L	73.163 ppb	11:19:38
3	S 181.975 Axial†	95.6	79.2	329.23 µg/L	329.23 ppb	11:19:38
3	Sb 206.836†	22.4	-1.0	-2.4143 µg/L	-2.4143 ppb	11:19:38
3	Se 196.026†	-16.8	-35.3	124.11 µg/L	124.11 ppb	11:19:38
3	SiO2†	146917.7	147111.0	30047 µg/L	30047 ppb	11:19:17
3	Si 251.611†	182295.9	183842.6	14367 µg/L	14367 ppb	11:19:11
3	Sn 189.927†	-22.4	-23.0	-16.327 µg/L	-16.327 ppb	11:19:38
3	Ti 334.940†	1161227.0	1172863.3	2707.9 µg/L	2707.9 ppb	11:19:11
3	Tl 190.801†	-48.7	-25.5	9.9842 µg/L	9.9842 ppb	11:19:38
3	U 409.014†	-509.1	-425.2	-45.927 µg/L	-45.927 ppb	11:19:17
3	V 292.402†	11429.3	11590.4	125.18 µg/L	125.18 ppb	11:19:17
3	Zn 213.857†	8913.7	8539.7	197.55 µg/L	197.55 ppb	11:19:17

Mean Data: 1202030847|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1952790.3	98.362 %	0.5674			0.58%
Sc RADIAL	56086.3	97.9 %	0.95			0.97%
Y 371.029	1355065.7	99.316 %	0.5650			0.57%
Ag 328.068†	-860.6	-1.4989 µg/L	0.27955	-1.4989 ppb	0.27955	18.65%
Al 396.153Radial†	48877.8	34048 µg/L	434.9	34048 ppb	434.9	1.28%
As 188.979†	2.5	8.1472 µg/L	0.97588	8.1472 ppb	0.97588	11.98%
B 249.677†	577.9	-11.118 µg/L	0.8281	-11.118 ppb	0.8281	7.45%
Ba 233.527†	15856.6	391.33 µg/L	8.197	391.33 ppb	8.197	2.09%
Be 313.107†	8916.3	4.4865 µg/L	0.07142	4.4865 ppb	0.07142	1.59%
Ca 317.933Radial†	7304.1	6340.4 µg/L	58.25	6340.4 ppb	58.25	0.92%
Cd 226.502†	239.8	-1.3261 µg/L	0.24164	-1.3261 ppb	0.24164	18.22%
Co 228.616†	800.3	31.451 µg/L	1.5140	31.451 ppb	1.5140	4.81%
Cr 267.716†	4207.4	87.633 µg/L	2.7979	87.633 ppb	2.7979	3.19%
Cu 324.752†	5568.3	46.121 µg/L	0.9703	46.121 ppb	0.9703	2.10%
Fe 238.204 Radial†	8510.5	67233 µg/L	546.1	67233 ppb	546.1	0.81%
K 766.490 Radial†	10257.5	7060.4 µg/L	114.77	7060.4 ppb	114.77	1.63%
Mg 279.077 IEC†	731.0	6401.8 µg/L	62.47	6401.8 ppb	62.47	0.98%
Mn 257.610†	662193.2	2161.8 µg/L	36.98	2161.8 ppb	36.98	1.71%
Mo 202.031†	30.3	5.6150 µg/L	0.71992	5.6150 ppb	0.71992	12.82%
Na 589.592 Radial†	1053.7	327.87 µg/L	2.010	327.87 ppb	2.010	0.61%

Ni 231.604†	852.5	44.847 µg/L	1.8953	44.847 ppb	1.8953	4.23%
P 214.914†	234.1	421.51 µg/L	8.538	421.51 ppb	8.538	2.03%
Pb 220.353†	292.1	72.473 µg/L	1.1224	72.473 ppb	1.1224	1.55%
S 181.975 Axial†	82.1	341.32 µg/L	13.531	341.32 ppb	13.531	3.96%
Sb 206.836†	4.6	2.7852 µg/L	4.50685	2.7852 ppb	4.50685	161.81%
Se 196.026†	-36.5	123.84 µg/L	3.213	123.84 ppb	3.213	2.59%
SiO2†	150720.8	30784 µg/L	660.0	30784 ppb	660.0	2.14%
Si 251.611†	186779.5	14597 µg/L	200.7	14597 ppb	200.7	1.37%
Sn 189.927†	-23.2	-16.503 µg/L	0.4108	-16.503 ppb	0.4108	2.49%
Sr 421.552†	8407.2	82.963 µg/L	0.8763	82.963 ppb	0.8763	1.06%
Ti 334.940†	1198117.7	2766.2 µg/L	50.85	2766.2 ppb	50.85	1.84%
Tl 190.801†	-28.2	7.1728 µg/L	4.59978	7.1728 ppb	4.59978	64.13%
U 409.014†	-405.1	-44.297 µg/L	4.0803	-44.297 ppb	4.0803	9.21%
V 292.402†	11944.9	128.84 µg/L	3.247	128.84 ppb	3.247	2.52%
Zn 213.857†	8754.6	202.57 µg/L	4.440	202.57 ppb	4.440	2.19%

Sequence No.: 25

Sample ID: 1202030849|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 405

Date Collected: 2/12/2010 11:19:47

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030849|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56815.4	56815.4	99.2 %		11:20:20
1	Al 396.153Radial†	101796.7	102643.8	71489 µg/L	71489 ppb	11:20:20
1	Ca 317.933Radial†	16749.4	16697.9	14495 µg/L	14495 ppb	11:20:41
1	Fe 238.204 Radial†	10056.1	10123.7	79989 µg/L	79989 ppb	11:20:41
1	K 766.490 Radial†	22930.7	22949.6	15797 µg/L	15797 ppb	11:20:20
1	Mg 279.077 IEC†	1697.7	1700.5	14983 µg/L	14983 ppb	11:20:41
1	Na 589.592 Radial†	18001.8	17633.6	5486.9 µg/L	5486.9 ppb	11:20:20
1	Sr 421.552†	64153.2	64646.4	637.94 µg/L	637.94 ppb	11:20:20
1	Sc 361.383	1928480.5	1928480.5	97.138 %		11:21:45
1	Y 371.029	1343427.9	1343427.9	98.463 %		11:21:45
1	Ag 328.068†	66546.7	69068.6	533.83 µg/L	533.83 ppb	11:21:51
1	As 188.979†	305.7	312.8	577.81 µg/L	577.81 ppb	11:22:11
1	B 249.677†	13780.6	13892.4	532.08 µg/L	532.08 ppb	11:21:51
1	Ba 233.527†	42782.3	44068.9	1088.2 µg/L	1088.2 ppb	11:21:51
1	Be 313.107†	881168.2	910733.2	564.46 µg/L	564.46 ppb	11:21:45
1	Cd 226.502†	19906.0	20638.7	527.59 µg/L	527.59 ppb	11:21:51
1	Co 228.616†	11957.9	12319.1	565.45 µg/L	565.45 ppb	11:21:51
1	Cr 267.716†	32497.6	33503.7	697.65 µg/L	697.65 ppb	11:21:51
1	Cu 324.752†	100496.6	101013.7	678.26 µg/L	678.26 ppb	11:21:51
1	Mn 257.610†	862522.1	888201.9	2898.1 µg/L	2898.1 ppb	11:21:45
1	Mo 202.031†	5449.3	5614.7	569.73 µg/L	569.73 ppb	11:22:11
1	Ni 231.604†	12185.3	12241.8	632.42 µg/L	632.42 ppb	11:21:51
1	P 214.914†	673.6	666.8	1233.4 µg/L	1233.4 ppb	11:22:11
1	Pb 220.353†	2621.9	2612.2	655.28 µg/L	655.28 ppb	11:22:11
1	S 181.975 Axial†	1524.5	1552.0	6455.0 µg/L	6455.0 ppb	11:22:11
1	Sb 206.836†	605.6	599.8	555.43 µg/L	555.43 ppb	11:22:11
1	Se 196.026†	363.5	355.9	712.31 µg/L	712.31 ppb	11:22:11
1	SiO2†	233509.7	239099.3	48835 µg/L	48835 ppb	11:21:45
1	Si 251.611†	282515.6	290545.1	22706 µg/L	22706 ppb	11:21:45
1	Sn 189.927†	1312.9	1351.3	578.02 µg/L	578.02 ppb	11:22:11
1	Ti 334.940†	1616025.3	1663547.9	3840.4 µg/L	3840.4 ppb	11:21:45
1	Tl 190.801†	357.0	391.2	576.50 µg/L	576.50 ppb	11:22:11
1	U 409.014†	6449.9	6729.1	562.14 µg/L	562.14 ppb	11:21:51
1	V 292.402†	66850.6	68866.1	712.07 µg/L	712.07 ppb	11:21:51
1	Zn 213.857†	33810.2	34342.4	801.09 µg/L	801.09 ppb	11:21:51
2	Sc RADIAL	56717.9	56717.9	99.0 %		11:20:46
2	Al 396.153Radial†	102752.3	103785.1	72284 µg/L	72284 ppb	11:20:46
2	Ca 317.933Radial†	16869.1	16847.8	14625 µg/L	14625 ppb	11:21:07
2	Fe 238.204 Radial†	10189.1	10275.4	81187 µg/L	81187 ppb	11:21:07
2	K 766.490 Radial†	23109.8	23170.2	15948 µg/L	15948 ppb	11:20:46
2	Mg 279.077 IEC†	1714.7	1720.7	15160 µg/L	15160 ppb	11:21:07
2	Na 589.592 Radial†	18165.3	17829.8	5548.0 µg/L	5548.0 ppb	11:20:46
2	Sr 421.552†	64849.3	65460.4	645.97 µg/L	645.97 ppb	11:20:46
2	Sc 361.383	1950300.8	1950300.8	98.237 %		11:22:19
2	Y 371.029	1357142.4	1357142.4	99.468 %		11:22:19
2	Ag 328.068†	65714.4	67454.9	521.53 µg/L	521.53 ppb	11:22:25
2	As 188.979†	302.5	306.1	565.51 µg/L	565.51 ppb	11:22:45
2	B 249.677†	13612.0	13562.0	517.81 µg/L	517.81 ppb	11:22:25
2	Ba 233.527†	42126.7	42908.9	1059.6 µg/L	1059.6 ppb	11:22:25
2	Be 313.107†	871450.3	890691.7	552.04 µg/L	552.04 ppb	11:22:19
2	Cd 226.502†	19662.4	20161.5	515.04 µg/L	515.04 ppb	11:22:25
2	Co 228.616†	11796.3	12016.9	551.56 µg/L	551.56 ppb	11:22:25
2	Cr 267.716†	31992.1	32614.9	679.14 µg/L	679.14 ppb	11:22:25
2	Cu 324.752†	99016.4	98349.4	660.83 µg/L	660.83 ppb	11:22:25
2	Mn 257.610†	852463.0	868027.9	2832.6 µg/L	2832.6 ppb	11:22:19
2	Mo 202.031†	5426.9	5529.2	561.14 µg/L	561.14 ppb	11:22:45
2	Ni 231.604†	12004.6	11917.6	615.71 µg/L	615.71 ppb	11:22:25
2	P 214.914†	660.3	645.6	1191.7 µg/L	1191.7 ppb	11:22:45
2	Pb 220.353†	2592.7	2552.4	640.29 µg/L	640.29 ppb	11:22:45

2	S 181.975 Axial†	1501.2	1510.7	6283.3 µg/L	6283.3 ppb	11:22:45
2	Sb 206.836†	609.3	596.6	552.54 µg/L	552.54 ppb	11:22:45
2	Se 196.026†	357.0	345.1	699.83 µg/L	699.83 ppb	11:22:45
2	SiO2†	230809.9	233661.6	47725 µg/L	47725 ppb	11:22:19
2	Si 251.611†	279353.8	284072.6	22200 µg/L	22200 ppb	11:22:19
2	Sn 189.927†	1307.7	1330.9	569.07 µg/L	569.07 ppb	11:22:45
2	Ti 334.940†	1599227.9	1627835.9	3757.9 µg/L	3757.9 ppb	11:22:19
2	Tl 190.801†	353.5	383.6	565.64 µg/L	565.64 ppb	11:22:45
2	U 409.014†	6428.9	6633.4	553.80 µg/L	553.80 ppb	11:22:25
2	V 292.402†	65784.8	67011.2	693.34 µg/L	693.34 ppb	11:22:25
2	Zn 213.857†	33336.9	33471.2	780.58 µg/L	780.58 ppb	11:22:25
3	Sc RADIAL	56438.4	56438.4	98.5 %		11:21:12
3	Al 396.153Radial†	104061.1	105627.3	73568 µg/L	73568 ppb	11:21:12
3	Ca 317.933Radial†	16963.6	17028.1	14781 µg/L	14781 ppb	11:21:33
3	Fe 238.204 Radial†	10242.0	10380.1	82014 µg/L	82014 ppb	11:21:33
3	K 766.490 Radial†	23326.7	23505.9	16179 µg/L	16179 ppb	11:21:12
3	Mg 279.077 IEC†	1713.2	1727.7	15221 µg/L	15221 ppb	11:21:33
3	Na 589.592 Radial†	18377.1	18135.6	5643.2 µg/L	5643.2 ppb	11:21:12
3	Sr 421.552†	65465.9	66410.5	655.35 µg/L	655.35 ppb	11:21:12
3	Sc 361.383	1934063.1	1934063.1	97.419 %		11:22:52
3	Y 371.029	1346450.8	1346450.8	98.685 %		11:22:52
3	Ag 328.068†	65481.9	67777.8	523.96 µg/L	523.96 ppb	11:22:58
3	As 188.979†	286.2	291.9	539.54 µg/L	539.54 ppb	11:23:18
3	B 249.677†	13499.7	13563.1	517.40 µg/L	517.40 ppb	11:22:58
3	Ba 233.527†	41390.9	42513.6	1049.8 µg/L	1049.8 ppb	11:22:58
3	Be 313.107†	856518.7	882812.1	547.16 µg/L	547.16 ppb	11:22:52
3	Cd 226.502†	19476.9	20139.1	514.36 µg/L	514.36 ppb	11:22:58
3	Co 228.616†	11539.1	11853.7	544.02 µg/L	544.02 ppb	11:22:58
3	Cr 267.716†	31077.7	31949.6	665.29 µg/L	665.29 ppb	11:22:58
3	Cu 324.752†	96732.6	96851.3	651.05 µg/L	651.05 ppb	11:22:58
3	Mn 257.610†	839582.5	862091.6	2813.4 µg/L	2813.4 ppb	11:22:52
3	Mo 202.031†	5104.9	5245.0	532.49 µg/L	532.49 ppb	11:23:18
3	Ni 231.604†	11782.1	11791.8	609.24 µg/L	609.24 ppb	11:22:58
3	P 214.914†	623.6	613.5	1127.7 µg/L	1127.7 ppb	11:23:18
3	Pb 220.353†	2496.6	2475.8	621.10 µg/L	621.10 ppb	11:23:18
3	S 181.975 Axial†	1458.6	1479.8	6154.5 µg/L	6154.5 ppb	11:23:18
3	Sb 206.836†	567.2	558.6	517.04 µg/L	517.04 ppb	11:23:18
3	Se 196.026†	340.8	331.5	682.49 µg/L	682.49 ppb	11:23:18
3	SiO2†	224134.9	228782.3	46728 µg/L	46728 ppb	11:22:52
3	Si 251.611†	271083.2	277970.4	21723 µg/L	21723 ppb	11:22:52
3	Sn 189.927†	1226.0	1258.2	537.52 µg/L	537.52 ppb	11:23:18
3	Ti 334.940†	1570846.1	1612369.6	3722.2 µg/L	3722.2 ppb	11:22:52
3	Tl 190.801†	336.2	368.9	546.07 µg/L	546.07 ppb	11:23:18
3	U 409.014†	6235.6	6490.0	541.44 µg/L	541.44 ppb	11:22:58
3	V 292.402†	64125.8	65870.5	681.65 µg/L	681.65 ppb	11:22:58
3	Zn 213.857†	32813.1	33218.4	774.63 µg/L	774.63 ppb	11:22:58

Mean Data: 1202030849|948032|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1937614.8	97.598 %		0.5710				0.59%
Sc RADIAL	56657.2	98.9 %		0.34				0.35%
Y 371.029	1349007.0	98.872 %		0.5281				0.53%
Ag 328.068†	68100.4	526.44 µg/L		6.512	526.44 ppb		6.512	1.24%
Al 396.153Radial†	104018.7	72447 µg/L		1049.0	72447 ppb		1049.0	1.45%
As 188.979†	303.6	560.95 µg/L		19.535	560.95 ppb		19.535	3.48%
B 249.677†	13672.5	522.43 µg/L		8.362	522.43 ppb		8.362	1.60%
Ba 233.527†	43163.8	1065.9 µg/L		19.97	1065.9 ppb		19.97	1.87%
Be 313.107†	894745.7	554.55 µg/L		8.922	554.55 ppb		8.922	1.61%
Ca 317.933Radial†	16857.9	14634 µg/L		143.5	14634 ppb		143.5	0.98%
Cd 226.502†	20313.1	519.00 µg/L		7.448	519.00 ppb		7.448	1.44%
Co 228.616†	12063.3	553.68 µg/L		10.873	553.68 ppb		10.873	1.96%
Cr 267.716†	32689.4	680.70 µg/L		16.235	680.70 ppb		16.235	2.39%
Cu 324.752†	98738.1	663.38 µg/L		13.783	663.38 ppb		13.783	2.08%
Fe 238.204 Radial†	10259.7	81063 µg/L		1018.1	81063 ppb		1018.1	1.26%
K 766.490 Radial†	23208.5	15975 µg/L		192.8	15975 ppb		192.8	1.21%
Mg 279.077 IEC†	1716.3	15121 µg/L		123.5	15121 ppb		123.5	0.82%
Mn 257.610†	872773.8	2848.0 µg/L		44.38	2848.0 ppb		44.38	1.56%
Mo 202.031†	5462.9	554.45 µg/L		19.498	554.45 ppb		19.498	3.52%
Na 589.592 Radial†	17866.3	5559.4 µg/L		78.73	5559.4 ppb		78.73	1.42%

Ni 231.604†	11983.7	619.13 µg/L	11.963	619.13 ppb	11.963	1.93%
P 214.914†	642.0	1184.3 µg/L	53.28	1184.3 ppb	53.28	4.50%
Pb 220.353†	2546.8	638.89 µg/L	17.132	638.89 ppb	17.132	2.68%
S 181.975 Axial†	1514.2	6297.6 µg/L	150.77	6297.6 ppb	150.77	2.39%
Sb 206.836†	585.0	541.67 µg/L	21.378	541.67 ppb	21.378	3.95%
Se 196.026†	344.1	698.21 µg/L	14.977	698.21 ppb	14.977	2.15%
SiO2†	233847.8	47763 µg/L	1054.1	47763 ppb	1054.1	2.21%
Si 251.611†	284196.0	22210 µg/L	491.4	22210 ppb	491.4	2.21%
Sn 189.927†	1313.5	561.54 µg/L	21.275	561.54 ppb	21.275	3.79%
Sr 421.552†	65505.8	646.42 µg/L	8.713	646.42 ppb	8.713	1.35%
Ti 334.940†	1634584.4	3773.5 µg/L	60.62	3773.5 ppb	60.62	1.61%
Tl 190.801†	381.2	562.74 µg/L	15.423	562.74 ppb	15.423	2.74%
U 409.014†	6617.5	552.46 µg/L	10.415	552.46 ppb	10.415	1.89%
V 292.402†	67249.3	695.69 µg/L	15.347	695.69 ppb	15.347	2.21%
Zn 213.857†	33677.3	785.43 µg/L	13.881	785.43 ppb	13.881	1.77%

Sequence No.: 26

Sample ID: 1202030850|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 406

Date Collected: 2/12/2010 11:23:28

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030850|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55077.8	55077.8	96.2 %		11:24:01
1	Al 396.153Radial†	90354.2	93982.3	65456 µg/L	65456 ppb	11:24:01
1	Ca 317.933Radial†	13834.7	14199.7	12326 µg/L	12326 ppb	11:24:21
1	Fe 238.204 Radial†	9921.4	10303.4	81408 µg/L	81408 ppb	11:24:21
1	K 766.490 Radial†	20775.3	21437.4	14756 µg/L	14756 ppb	11:24:01
1	Mg 279.077 IEC†	1571.4	1623.2	14297 µg/L	14297 ppb	11:24:21
1	Na 589.592 Radial†	17936.1	18137.7	5643.8 µg/L	5643.8 ppb	11:24:01
1	Sr 421.552†	62054.9	64504.6	636.54 µg/L	636.54 ppb	11:24:01
1	Sc 361.383	1934934.2	1934934.2	97.463 %		11:25:26
1	Y 371.029	1343008.2	1343008.2	98.432 %		11:25:26
1	Ag 328.068†	65912.1	68189.0	527.24 µg/L	527.24 ppb	11:25:32
1	As 188.979†	290.9	296.7	548.28 µg/L	548.28 ppb	11:25:52
1	B 249.677†	13369.6	13423.4	511.89 µg/L	511.89 ppb	11:25:32
1	Ba 233.527†	40789.3	41877.2	1034.2 µg/L	1034.2 ppb	11:25:32
1	Be 313.107†	848056.6	873733.9	541.41 µg/L	541.41 ppb	11:25:26
1	Cd 226.502†	19573.6	20229.4	516.76 µg/L	516.76 ppb	11:25:32
1	Co 228.616†	11730.6	12044.8	552.33 µg/L	552.33 ppb	11:25:32
1	Cr 267.716†	29223.2	30032.5	625.42 µg/L	625.42 ppb	11:25:32
1	Cu 324.752†	91944.2	91893.6	618.23 µg/L	618.23 ppb	11:25:32
1	Mn 257.610†	891476.7	914948.7	2985.2 µg/L	2985.2 ppb	11:25:26
1	Mo 202.031†	5322.9	5466.4	554.81 µg/L	554.81 ppb	11:25:52
1	Ni 231.604†	11452.9	11448.6	591.50 µg/L	591.50 ppb	11:25:32
1	P 214.914†	544.4	531.9	965.67 µg/L	965.67 ppb	11:25:52
1	Pb 220.353†	2434.8	2411.3	604.65 µg/L	604.65 ppb	11:25:52
1	S 181.975 Axial†	1410.5	1429.8	5946.6 µg/L	5946.6 ppb	11:25:52
1	Sb 206.836†	598.4	590.3	547.48 µg/L	547.48 ppb	11:25:52
1	Se 196.026†	340.9	331.4	682.27 µg/L	682.27 ppb	11:25:52
1	SiO2†	209855.8	214027.9	43715 µg/L	43715 ppb	11:25:26
1	Si 251.611†	253874.9	260188.8	20334 µg/L	20334 ppb	11:25:26
1	Sn 189.927†	1278.9	1311.9	560.73 µg/L	560.73 ppb	11:25:52
1	Ti 334.940†	1692716.8	1736687.0	4009.3 µg/L	4009.3 ppb	11:25:26
1	Tl 190.801†	353.3	386.2	571.61 µg/L	571.61 ppb	11:25:52
1	U 409.014†	5961.9	6206.3	517.46 µg/L	517.46 ppb	11:25:32
1	V 292.402†	67148.5	68942.2	712.68 µg/L	712.68 ppb	11:25:32
1	Zn 213.857†	30555.4	30886.8	719.87 µg/L	719.87 ppb	11:25:32
2	Sc RADIAL	55665.0	55665.0	97.2 %		11:24:27
2	Al 396.153Radial†	91381.0	94047.7	65502 µg/L	65502 ppb	11:24:27
2	Ca 317.933Radial†	13709.6	13919.2	12083 µg/L	12083 ppb	11:24:47
2	Fe 238.204 Radial†	9827.4	10097.9	79784 µg/L	79784 ppb	11:24:47
2	K 766.490 Radial†	20949.0	21388.3	14722 µg/L	14722 ppb	11:24:27
2	Mg 279.077 IEC†	1563.6	1598.0	14075 µg/L	14075 ppb	11:24:47
2	Na 589.592 Radial†	18153.7	18164.8	5652.3 µg/L	5652.3 ppb	11:24:27
2	Sr 421.552†	62732.4	64521.0	636.70 µg/L	636.70 ppb	11:24:27
2	Sc 361.383	1951504.5	1951504.5	98.297 %		11:26:00
2	Y 371.029	1352939.1	1352939.1	99.160 %		11:26:00
2	Ag 328.068†	64687.0	66368.4	513.19 µg/L	513.19 ppb	11:26:05
2	As 188.979†	283.6	286.7	529.97 µg/L	529.97 ppb	11:26:26
2	B 249.677†	13121.1	13054.2	497.49 µg/L	497.49 ppb	11:26:05
2	Ba 233.527†	39938.0	40655.8	1004.0 µg/L	1004.0 ppb	11:26:05
2	Be 313.107†	845080.9	863318.4	534.95 µg/L	534.95 ppb	11:26:00
2	Cd 226.502†	19169.7	19647.9	501.82 µg/L	501.82 ppb	11:26:05
2	Co 228.616†	11461.1	11668.5	534.91 µg/L	534.91 ppb	11:26:05
2	Cr 267.716†	28609.9	29154.0	607.12 µg/L	607.12 ppb	11:26:05
2	Cu 324.752†	90292.7	89412.4	601.61 µg/L	601.61 ppb	11:26:05
2	Mn 257.610†	889716.4	905391.3	2954.0 µg/L	2954.0 ppb	11:26:00
2	Mo 202.031†	5315.0	5411.9	549.25 µg/L	549.25 ppb	11:26:26
2	Ni 231.604†	11264.9	11157.5	576.47 µg/L	576.47 ppb	11:26:05
2	P 214.914†	522.6	505.1	914.67 µg/L	914.67 ppb	11:26:26
2	Pb 220.353†	2416.0	2371.0	594.65 µg/L	594.65 ppb	11:26:26

2	S 181.975 Axial†	1406.9	1413.8	5880.3 µg/L	5880.3 ppb	11:26:26
2	Sb 206.836†	591.4	577.9	536.11 µg/L	536.11 ppb	11:26:26
2	Se 196.026†	334.7	322.1	664.72 µg/L	664.72 ppb	11:26:26
2	SiO2†	209082.9	211413.4	43181 µg/L	43181 ppb	11:26:00
2	Si 251.611†	253050.4	257138.2	20095 µg/L	20095 ppb	11:26:00
2	Sn 189.927†	1270.5	1292.2	552.37 µg/L	552.37 ppb	11:26:26
2	Ti 334.940†	1689314.9	1718479.1	3967.3 µg/L	3967.3 ppb	11:26:00
2	Tl 190.801†	343.7	373.4	553.99 µg/L	553.99 ppb	11:26:26
2	U 409.014†	5820.9	6010.8	501.03 µg/L	501.03 ppb	11:26:05
2	V 292.402†	65664.2	66847.2	691.21 µg/L	691.21 ppb	11:26:05
2	Zn 213.857†	30037.1	30093.3	701.35 µg/L	701.35 ppb	11:26:05
3	Sc RADIAL	55583.7	55583.7	97.0 %		11:24:53
3	Al 396.153Radial†	89997.4	92759.6	64605 µg/L	64605 ppb	11:24:53
3	Ca 317.933Radial†	13680.7	13910.0	12075 µg/L	12075 ppb	11:25:13
3	Fe 238.204 Radial†	9801.3	10085.8	79689 µg/L	79689 ppb	11:25:13
3	K 766.490 Radial†	20719.7	21183.5	14581 µg/L	14581 ppb	11:24:53
3	Mg 279.077 IEC†	1555.4	1591.9	14021 µg/L	14021 ppb	11:25:13
3	Na 589.592 Radial†	17932.1	17963.8	5589.7 µg/L	5589.7 ppb	11:24:53
3	Sr 421.552†	61880.6	63737.7	628.97 µg/L	628.97 ppb	11:24:53
3	Sc 361.383	1916586.4	1916586.4	96.539 %		11:26:33
3	Y 371.029	1330140.9	1330140.9	97.489 %		11:26:33
3	Ag 328.068†	64888.1	67775.7	523.88 µg/L	523.88 ppb	11:26:39
3	As 188.979†	277.3	285.4	527.60 µg/L	527.60 ppb	11:26:59
3	B 249.677†	13152.3	13329.7	508.90 µg/L	508.90 ppb	11:26:39
3	Ba 233.527†	39628.0	41074.8	1014.4 µg/L	1014.4 ppb	11:26:39
3	Be 313.107†	828573.1	861881.8	534.06 µg/L	534.06 ppb	11:26:33
3	Cd 226.502†	19085.7	19916.2	508.81 µg/L	508.81 ppb	11:26:39
3	Co 228.616†	11365.6	11781.9	540.19 µg/L	540.19 ppb	11:26:39
3	Cr 267.716†	28224.9	29285.4	609.86 µg/L	609.86 ppb	11:26:39
3	Cu 324.752†	89092.0	89842.2	604.44 µg/L	604.44 ppb	11:26:39
3	Mn 257.610†	872287.1	903827.4	2948.9 µg/L	2948.9 ppb	11:26:33
3	Mo 202.031†	5029.9	5215.1	529.38 µg/L	529.38 ppb	11:26:59
3	Ni 231.604†	11122.5	11218.8	579.63 µg/L	579.63 ppb	11:26:39
3	P 214.914†	501.3	492.7	889.10 µg/L	889.10 ppb	11:26:59
3	Pb 220.353†	2342.2	2339.2	586.59 µg/L	586.59 ppb	11:26:59
3	S 181.975 Axial†	1359.8	1391.2	5786.0 µg/L	5786.0 ppb	11:26:59
3	Sb 206.836†	569.2	565.9	524.65 µg/L	524.65 ppb	11:26:59
3	Se 196.026†	338.8	332.6	679.58 µg/L	679.58 ppb	11:26:59
3	SiO2†	203108.3	209099.8	42708 µg/L	42708 ppb	11:26:33
3	Si 251.611†	245646.4	254158.9	19863 µg/L	19863 ppb	11:26:33
3	Sn 189.927†	1215.9	1259.1	538.06 µg/L	538.06 ppb	11:26:59
3	Ti 334.940†	1653843.5	1713046.4	3954.7 µg/L	3954.7 ppb	11:26:33
3	Tl 190.801†	335.2	371.0	550.58 µg/L	550.58 ppb	11:26:59
3	U 409.014†	5741.1	6036.1	503.20 µg/L	503.20 ppb	11:26:39
3	V 292.402†	64793.5	67162.4	694.24 µg/L	694.24 ppb	11:26:39
3	Zn 213.857†	29846.0	30452.1	709.79 µg/L	709.79 ppb	11:26:39

Mean Data: 1202030850|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1934341.7	97.433 %	0.8798			0.90%
Sc RADIAL	55442.2	96.8 %	0.56			0.57%
Y 371.029	1342029.4	98.361 %	0.8378			0.85%
Ag 328.068†	67444.4	521.44 µg/L	7.341	521.44 ppb	7.341	1.41%
Al 396.153Radial†	93596.5	65188 µg/L	505.2	65188 ppb	505.2	0.77%
As 188.979†	289.6	535.28 µg/L	11.319	535.28 ppb	11.319	2.11%
B 249.677†	13269.1	506.09 µg/L	7.600	506.09 ppb	7.600	1.50%
Ba 233.527†	41202.6	1017.5 µg/L	15.33	1017.5 ppb	15.33	1.51%
Be 313.107†	866311.4	536.81 µg/L	4.008	536.81 ppb	4.008	0.75%
Ca 317.933Radial†	14009.6	12161 µg/L	142.9	12161 ppb	142.9	1.18%
Cd 226.502†	19931.1	509.13 µg/L	7.471	509.13 ppb	7.471	1.47%
Co 228.616†	11831.7	542.47 µg/L	8.933	542.47 ppb	8.933	1.65%
Cr 267.716†	29490.6	614.13 µg/L	9.868	614.13 ppb	9.868	1.61%
Cu 324.752†	90382.7	608.09 µg/L	8.889	608.09 ppb	8.889	1.46%
Fe 238.204 Radial†	10162.4	80294 µg/L	966.5	80294 ppb	966.5	1.20%
K 766.490 Radial†	21336.4	14686 µg/L	92.7	14686 ppb	92.7	0.63%
Mg 279.077 IEC†	1604.4	14131 µg/L	146.2	14131 ppb	146.2	1.03%
Mn 257.610†	908055.8	2962.7 µg/L	19.70	2962.7 ppb	19.70	0.66%
Mo 202.031†	5364.4	544.48 µg/L	13.370	544.48 ppb	13.370	2.46%
Na 589.592 Radial†	18088.8	5628.6 µg/L	33.94	5628.6 ppb	33.94	0.60%



Ni 231.604†	11275.0	582.53 µg/L	7.923	582.53 ppb	7.923	1.36%
P 214.914†	509.9	923.15 µg/L	38.984	923.15 ppb	38.984	4.22%
Pb 220.353†	2373.8	595.29 µg/L	9.047	595.29 ppb	9.047	1.52%
S 181.975 Axial†	1411.6	5870.9 µg/L	80.72	5870.9 ppb	80.72	1.37%
Sb 206.836†	578.1	536.08 µg/L	11.412	536.08 ppb	11.412	2.13%
Se 196.026†	328.7	675.52 µg/L	9.450	675.52 ppb	9.450	1.40%
SiO2†	211513.7	43201 µg/L	503.6	43201 ppb	503.6	1.17%
Si 251.611†	257162.0	20097 µg/L	235.6	20097 ppb	235.6	1.17%
Sn 189.927†	1287.7	550.39 µg/L	11.461	550.39 ppb	11.461	2.08%
Sr 421.552†	64254.4	634.07 µg/L	4.417	634.07 ppb	4.417	0.70%
Ti 334.940†	1722737.5	3977.1 µg/L	28.58	3977.1 ppb	28.58	0.72%
Tl 190.801†	376.9	558.73 µg/L	11.283	558.73 ppb	11.283	2.02%
U 409.014†	6084.4	507.23 µg/L	8.928	507.23 ppb	8.928	1.76%
V 292.402†	67650.6	699.38 µg/L	11.620	699.38 ppb	11.620	1.66%
Zn 213.857†	30477.4	710.34 µg/L	9.274	710.34 ppb	9.274	1.31%

Sequence No.: 27

Sample ID: 1202030848|948032|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 407

Date Collected: 2/12/2010 11:27:08

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030848|948032|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56112.2	56112.2	98.0 %		11:27:41
1	Al 396.153Radial†	11812.2	12081.1	8415.6 µg/L	8415.6 ppb	11:27:41
1	Ca 317.933Radial†	2269.4	2129.5	1848.6 µg/L	1848.6 ppb	11:28:01
1	Fe 238.204 Radial†	1903.5	1929.2	15241 µg/L	15241 ppb	11:28:01
1	K 766.490 Radial†	2559.8	2446.3	1683.8 µg/L	1683.8 ppb	11:27:41
1	Mg 279.077 IEC†	197.7	191.0	1674.8 µg/L	1674.8 ppb	11:28:01
1	Na 589.592 Radial†	701.2	202.0	62.845 µg/L	62.845 ppb	11:27:41
1	Sr 421.552†	2257.8	2279.2	22.491 µg/L	22.491 ppb	11:27:41
1	Sc 361.383	1965224.6	1965224.6	98.989 %		11:29:04
1	Y 371.029	1347742.2	1347742.2	98.779 %		11:29:04
1	Ag 328.068†	-726.8	-173.1	-0.1605 µg/L	-0.1605 ppb	11:29:10
1	As 188.979†	-3.6	-5.5	-9.2880 µg/L	-9.2880 ppb	11:29:30
1	B 249.677†	483.9	194.6	0.0977 µg/L	0.0977 ppb	11:29:10
1	Ba 233.527†	4426.5	4497.7	110.99 µg/L	110.99 ppb	11:29:10
1	Be 313.107†	-827.3	2764.6	1.4833 µg/L	1.4833 ppb	11:29:10
1	Cd 226.502†	-66.0	79.5	0.3531 µg/L	0.3531 ppb	11:29:30
1	Co 228.616†	206.1	217.1	8.8114 µg/L	8.8114 ppb	11:29:30
1	Cr 267.716†	817.6	874.5	18.218 µg/L	18.218 ppb	11:29:10
1	Cu 324.752†	4269.1	1868.5	14.459 µg/L	14.459 ppb	11:29:10
1	Mn 257.610†	178817.6	180909.4	590.19 µg/L	590.19 ppb	11:29:04
1	Mo 202.031†	1.9	6.7	1.2602 µg/L	1.2602 ppb	11:29:30
1	Ni 231.604†	516.1	218.8	11.485 µg/L	11.485 ppb	11:29:30
1	P 214.914†	86.7	61.0	111.15 µg/L	111.15 ppb	11:29:30
1	Pb 220.353†	174.0	88.9	22.154 µg/L	22.154 ppb	11:29:30
1	S 181.975 Axial†	39.9	22.8	94.989 µg/L	94.989 ppb	11:29:30
1	Sb 206.836†	35.5	12.2	10.915 µg/L	10.915 ppb	11:29:30
1	Se 196.026†	5.9	-12.4	21.820 µg/L	21.820 ppb	11:29:30
1	SiO2†	36740.1	35824.6	7317.1 µg/L	7317.1 ppb	11:29:10
1	Si 251.611†	43401.0	43549.4	3403.4 µg/L	3403.4 ppb	11:29:10
1	Sn 189.927†	-9.5	-9.9	-5.7278 µg/L	-5.7278 ppb	11:29:30
1	Ti 334.940†	264085.2	266688.3	615.72 µg/L	615.72 ppb	11:29:04
1	Tl 190.801†	-32.2	-8.8	-1.2210 µg/L	-1.2210 ppb	11:29:30
1	U 409.014†	-237.8	-151.2	-15.128 µg/L	-15.128 ppb	11:29:10
1	V 292.402†	2824.4	2898.9	31.129 µg/L	31.129 ppb	11:29:10
1	Zn 213.857†	2250.5	1809.4	41.767 µg/L	41.767 ppb	11:29:30
2	Sc RADIAL	54643.7	54643.7	95.4 %		11:28:07
2	Al 396.153Radial†	11883.7	12480.1	8693.5 µg/L	8693.5 ppb	11:28:07
2	Ca 317.933Radial†	2267.6	2189.9	1901.0 µg/L	1901.0 ppb	11:28:27
2	Fe 238.204 Radial†	1900.1	1977.9	15626 µg/L	15626 ppb	11:28:27
2	K 766.490 Radial†	2505.3	2459.4	1692.8 µg/L	1692.8 ppb	11:28:07
2	Mg 279.077 IEC†	190.0	188.4	1651.3 µg/L	1651.3 ppb	11:28:27
2	Na 589.592 Radial†	744.3	266.3	82.877 µg/L	82.877 ppb	11:28:07
2	Sr 421.552†	2257.8	2341.1	23.102 µg/L	23.102 ppb	11:28:07
2	Sc 361.383	1958032.5	1958032.5	98.626 %		11:29:37
2	Y 371.029	1343156.9	1343156.9	98.443 %		11:29:37
2	Ag 328.068†	-774.2	-223.9	-0.5214 µg/L	-0.5214 ppb	11:29:42
2	As 188.979†	-0.1	-1.9	-2.7245 µg/L	-2.7245 ppb	11:30:03
2	B 249.677†	460.1	172.3	-1.0215 µg/L	-1.0215 ppb	11:29:42
2	Ba 233.527†	4413.7	4501.2	111.08 µg/L	111.08 ppb	11:29:42
2	Be 313.107†	-1014.2	2572.1	1.3630 µg/L	1.3630 ppb	11:29:42
2	Cd 226.502†	-80.4	64.6	-0.0765 µg/L	-0.0765 ppb	11:30:03
2	Co 228.616†	200.2	211.8	8.5634 µg/L	8.5634 ppb	11:30:03
2	Cr 267.716†	804.1	863.9	17.996 µg/L	17.996 ppb	11:29:42
2	Cu 324.752†	4246.1	1861.0	14.463 µg/L	14.463 ppb	11:29:42
2	Mn 257.610†	178726.7	181480.8	592.10 µg/L	592.10 ppb	11:29:37
2	Mo 202.031†	5.6	10.5	1.6564 µg/L	1.6564 ppb	11:30:03
2	Ni 231.604†	515.7	220.4	11.571 µg/L	11.571 ppb	11:30:03
2	P 214.914†	97.6	72.4	133.91 µg/L	133.91 ppb	11:30:03
2	Pb 220.353†	186.4	102.1	25.437 µg/L	25.437 ppb	11:30:03

2	S 181.975 Axial†	40.7	23.8	99.044 µg/L	99.044 ppb	11:30:03
2	Sb 206.836†	22.6	-0.8	-1.0918 µg/L	-1.0918 ppb	11:30:03
2	Se 196.026†	8.4	-9.8	26.625 µg/L	26.625 ppb	11:30:03
2	SiO2†	36785.0	36006.5	7354.2 µg/L	7354.2 ppb	11:29:42
2	Si 251.611†	43492.2	43802.9	3423.2 µg/L	3423.2 ppb	11:29:42
2	Sn 189.927†	-3.2	-3.6	-3.0247 µg/L	-3.0247 ppb	11:30:03
2	Ti 334.940†	263817.7	267397.0	617.36 µg/L	617.36 ppb	11:29:37
2	Tl 190.801†	-27.4	-4.1	5.1017 µg/L	5.1017 ppb	11:30:03
2	U 409.014†	-110.6	-23.0	-4.2484 µg/L	-4.2484 ppb	11:29:42
2	V 292.402†	2816.2	2901.1	31.210 µg/L	31.210 ppb	11:29:42
2	Zn 213.857†	2239.5	1806.7	41.685 µg/L	41.685 ppb	11:30:03
3	Sc RADIAL	55814.3	55814.3	97.5 %		11:28:33
3	Al 396.153Radial†	12066.0	12406.0	8641.9 µg/L	8641.9 ppb	11:28:33
3	Ca 317.933Radial†	2267.9	2140.3	1857.9 µg/L	1857.9 ppb	11:28:53
3	Fe 238.204 Radial†	1906.6	1942.8	15348 µg/L	15348 ppb	11:28:53
3	K 766.490 Radial†	2641.4	2544.0	1751.1 µg/L	1751.1 ppb	11:28:33
3	Mg 279.077 IEC†	198.7	193.1	1693.5 µg/L	1693.5 ppb	11:28:53
3	Na 589.592 Radial†	704.0	208.6	64.903 µg/L	64.903 ppb	11:28:33
3	Sr 421.552†	2323.2	2358.5	23.274 µg/L	23.274 ppb	11:28:33
3	Sc 361.383	1943792.2	1943792.2	97.909 %		11:30:10
3	Y 371.029	1333433.7	1333433.7	97.731 %		11:30:10
3	Ag 328.068†	-733.1	-187.7	-0.2767 µg/L	-0.2767 ppb	11:30:15
3	As 188.979†	0.8	-1.0	-1.0668 µg/L	-1.0668 ppb	11:30:36
3	B 249.677†	449.6	164.9	-1.1824 µg/L	-1.1824 ppb	11:30:15
3	Ba 233.527†	4151.6	4266.3	105.28 µg/L	105.28 ppb	11:30:15
3	Be 313.107†	-1041.5	2536.6	1.3507 µg/L	1.3507 ppb	11:30:15
3	Cd 226.502†	-74.8	69.7	0.0866 µg/L	0.0866 ppb	11:30:36
3	Co 228.616†	174.8	187.4	7.4808 µg/L	7.4808 ppb	11:30:36
3	Cr 267.716†	750.2	814.7	16.972 µg/L	16.972 ppb	11:30:15
3	Cu 324.752†	4121.2	1765.1	13.791 µg/L	13.791 ppb	11:30:15
3	Mn 257.610†	171042.4	174960.0	570.86 µg/L	570.86 ppb	11:30:10
3	Mo 202.031†	2.8	7.7	1.3561 µg/L	1.3561 ppb	11:30:36
3	Ni 231.604†	478.6	186.4	9.8118 µg/L	9.8118 ppb	11:30:36
3	P 214.914†	78.0	53.1	95.404 µg/L	95.404 ppb	11:30:36
3	Pb 220.353†	163.4	80.0	19.921 µg/L	19.921 ppb	11:30:36
3	S 181.975 Axial†	36.4	19.7	82.137 µg/L	82.137 ppb	11:30:36
3	Sb 206.836†	30.4	7.4	6.4806 µg/L	6.4806 ppb	11:30:36
3	Se 196.026†	8.4	-9.8	25.852 µg/L	25.852 ppb	11:30:36
3	SiO2†	34789.4	34241.5	6993.7 µg/L	6993.7 ppb	11:30:15
3	Si 251.611†	41070.2	41652.3	3255.1 µg/L	3255.1 ppb	11:30:15
3	Sn 189.927†	-3.9	-4.3	-3.2873 µg/L	-3.2873 ppb	11:30:36
3	Ti 334.940†	251104.9	256372.3	591.89 µg/L	591.89 ppb	11:30:10
3	Tl 190.801†	-32.8	-9.8	-2.7670 µg/L	-2.7670 ppb	11:30:36
3	U 409.014†	-237.7	-153.6	-15.353 µg/L	-15.353 ppb	11:30:15
3	V 292.402†	2607.8	2709.2	29.221 µg/L	29.221 ppb	11:30:15
3	Zn 213.857†	2002.9	1581.6	36.399 µg/L	36.399 ppb	11:30:36

## Mean Data: 1202030848|948032|5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1955683.1	98.508 %	0.5494			0.56%
Sc RADIAL	55523.4	96.9 %	1.36			1.40%
Y 371.029	1341444.3	98.318 %	0.5355			0.54%
Ag 328.068†	-194.9	-0.3195 µg/L	0.18421	-0.3195 ppb	0.18421	57.65%
Al 396.153Radial†	12322.4	8583.7 µg/L	147.84	8583.7 ppb	147.84	1.72%
As 188.979†	-2.8	-4.3598 µg/L	4.34771	-4.3598 ppb	4.34771	99.72%
B 249.677†	177.3	-0.7021 µg/L	0.69728	-0.7021 ppb	0.69728	99.31%
Ba 233.527†	4421.7	109.12 µg/L	3.323	109.12 ppb	3.323	3.05%
Be 313.107†	2624.5	1.3990 µg/L	0.07326	1.3990 ppb	0.07326	5.24%
Ca 317.933Radial†	2153.2	1869.1 µg/L	27.94	1869.1 ppb	27.94	1.49%
Cd 226.502†	71.3	0.1211 µg/L	0.21688	0.1211 ppb	0.21688	179.15%
Co 228.616†	205.4	8.2852 µg/L	0.70757	8.2852 ppb	0.70757	8.54%
Cr 267.716†	851.0	17.728 µg/L	0.6646	17.728 ppb	0.6646	3.75%
Cu 324.752†	1831.5	14.238 µg/L	0.3870	14.238 ppb	0.3870	2.72%
Fe 238.204 Radial†	1950.0	15405 µg/L	198.5	15405 ppb	198.5	1.29%
K 766.490 Radial†	2483.2	1709.2 µg/L	36.49	1709.2 ppb	36.49	2.13%
Mg 279.077 IEC†	190.8	1673.2 µg/L	21.15	1673.2 ppb	21.15	1.26%
Mn 257.610†	179116.7	584.39 µg/L	11.751	584.39 ppb	11.751	2.01%
Mo 202.031†	8.3	1.4242 µg/L	0.20670	1.4242 ppb	0.20670	14.51%
Na 589.592 Radial†	225.6	70.208 µg/L	11.0196	70.208 ppb	11.0196	15.70%

Ni 231.604†	208.5	10.956 µg/L	0.9917	10.956 ppb	0.9917	9.05%
P 214.914†	62.1	113.49 µg/L	19.358	113.49 ppb	19.358	17.06%
Pb 220.353†	90.3	22.504 µg/L	2.7748	22.504 ppb	2.7748	12.33%
S 181.975 Axial†	22.1	92.057 µg/L	8.8268	92.057 ppb	8.8268	9.59%
Sb 206.836†	6.2	5.4346 µg/L	6.07137	5.4346 ppb	6.07137	111.72%
Se 196.026†	-10.7	24.765 µg/L	2.5800	24.765 ppb	2.5800	10.42%
SiO2†	35357.5	7221.7 µg/L	198.28	7221.7 ppb	198.28	2.75%
Si 251.611†	43001.5	3360.6 µg/L	91.85	3360.6 ppb	91.85	2.73%
Sn 189.927†	-5.9	-4.0133 µg/L	1.49065	-4.0133 ppb	1.49065	37.14%
Sr 421.552†	2326.3	22.956 µg/L	0.4115	22.956 ppb	0.4115	1.79%
Ti 334.940†	263485.9	608.32 µg/L	14.251	608.32 ppb	14.251	2.34%
Tl 190.801†	-7.6	0.3712 µg/L	4.16901	0.3712 ppb	4.16901	>999.9%
U 409.014†	-109.2	-11.577 µg/L	6.3474	-11.577 ppb	6.3474	54.83%
V 292.402†	2836.4	30.520 µg/L	1.1256	30.520 ppb	1.1256	3.69%
Zn 213.857†	1732.6	39.950 µg/L	3.0755	39.950 ppb	3.0755	7.70%

Sequence No.: 28

Sample ID: 245688002|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 408

Date Collected: 2/12/2010 11:30:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688002|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55899.3	55899.3	97.6 %		11:31:18
1	Al 396.153Radial†	66347.9	68004.5	47371 µg/L	47371 ppb	11:31:18
1	Ca 317.933Radial†	7996.2	8006.0	6949.7 µg/L	6949.7 ppb	11:31:38
1	Fe 238.204 Radial†	13552.3	13872.1	109590 µg/L	109590 ppb	11:31:18
1	K 766.490 Radial†	9301.5	9363.8	6445.3 µg/L	6445.3 ppb	11:31:18
1	Mg 279.077 IEC†	763.5	771.5	6714.5 µg/L	6714.5 ppb	11:31:38
1	Na 589.592 Radial†	6091.0	5727.1	1782.1 µg/L	1782.1 ppb	11:31:18
1	Sr 421.552†	7080.1	7228.9	71.335 µg/L	71.335 ppb	11:31:18
1	Sc 361.383	1965419.6	1965419.6	98.998 %		11:32:43
1	Y 371.029	1462129.6	1462129.6	107.16 %		11:32:43
1	Ag 328.068†	-1886.0	-1344.0	-2.9193 µg/L	-2.9193 ppb	11:32:48
1	As 188.979†	12.6	10.9	26.050 µg/L	26.050 ppb	11:33:09
1	B 249.677†	890.0	604.8	-32.079 µg/L	-32.079 ppb	11:32:48
1	Ba 233.527†	18105.9	18315.1	451.86 µg/L	451.86 ppb	11:32:48
1	Be 313.107†	8370.8	12055.9	6.7058 µg/L	6.7058 ppb	11:32:48
1	Cd 226.502†	202.4	350.6	-3.1993 µg/L	-3.1993 ppb	11:33:09
1	Co 228.616†	822.5	839.7	34.757 µg/L	34.757 ppb	11:33:09
1	Cr 267.716†	5113.9	5214.2	108.54 µg/L	108.54 ppb	11:32:48
1	Cu 324.752†	5858.4	3473.5	38.174 µg/L	38.174 ppb	11:32:48
1	Mn 257.610†	808705.9	817152.9	2671.3 µg/L	2671.3 ppb	11:32:43
1	Mo 202.031†	75.9	81.5	12.393 µg/L	12.393 ppb	11:33:09
1	Ni 231.604†	1817.5	1533.4	80.550 µg/L	80.550 ppb	11:33:09
1	P 214.914†	328.4	305.2	535.21 µg/L	535.21 ppb	11:33:09
1	Pb 220.353†	313.6	229.8	56.224 µg/L	56.224 ppb	11:33:09
1	S 181.975 Axial†	42.4	25.4	105.51 µg/L	105.51 ppb	11:33:09
1	Sb 206.836†	24.5	1.0	-0.7362 µg/L	-0.7362 ppb	11:33:09
1	Se 196.026†	-42.6	-61.4	203.42 µg/L	203.42 ppb	11:33:09
1	SiO2†	176357.1	176850.5	36121 µg/L	36121 ppb	11:32:48
1	Si 251.611†	219032.4	220953.4	17268 µg/L	17268 ppb	11:32:43
1	Sn 189.927†	-6.5	-6.9	-13.888 µg/L	-13.888 ppb	11:33:09
1	Ti 334.940†	884146.9	892997.2	2061.6 µg/L	2061.6 ppb	11:32:43
1	Tl 190.801†	-53.4	-30.2	7.3440 µg/L	7.3440 ppb	11:33:09
1	U 409.014†	-2449.9	-2385.6	-219.20 µg/L	-219.20 ppb	11:32:43
1	V 292.402†	5546.8	5648.6	70.096 µg/L	70.096 ppb	11:32:48
1	Zn 213.857†	21719.6	21475.3	500.29 µg/L	500.29 ppb	11:32:48
2	Sc RADIAL	57046.0	57046.0	99.6 %		11:31:44
2	Al 396.153Radial†	66162.2	66451.6	46289 µg/L	46289 ppb	11:31:44
2	Ca 317.933Radial†	7983.3	7828.4	6795.6 µg/L	6795.6 ppb	11:32:04
2	Fe 238.204 Radial†	13562.2	13602.9	107460 µg/L	107460 ppb	11:31:44
2	K 766.490 Radial†	9310.2	9181.0	6319.5 µg/L	6319.5 ppb	11:31:44
2	Mg 279.077 IEC†	766.4	758.7	6603.3 µg/L	6603.3 ppb	11:32:04
2	Na 589.592 Radial†	6095.5	5606.2	1744.4 µg/L	1744.4 ppb	11:31:44
2	Sr 421.552†	7112.0	7115.1	70.213 µg/L	70.213 ppb	11:31:44
2	Sc 361.383	1943953.6	1943953.6	97.917 %		11:33:16
2	Y 371.029	1444867.1	1444867.1	105.90 %		11:33:16
2	Ag 328.068†	-1918.1	-1397.8	-3.4541 µg/L	-3.4541 ppb	11:33:22
2	As 188.979†	3.0	1.2	8.0918 µg/L	8.0918 ppb	11:33:43
2	B 249.677†	916.3	641.5	-29.451 µg/L	-29.451 ppb	11:33:22
2	Ba 233.527†	18347.6	18763.9	462.93 µg/L	462.93 ppb	11:33:22
2	Be 313.107†	8416.4	12195.8	6.7869 µg/L	6.7869 ppb	11:33:22
2	Cd 226.502†	202.3	352.8	-2.9012 µg/L	-2.9012 ppb	11:33:43
2	Co 228.616†	825.8	852.2	35.310 µg/L	35.310 ppb	11:33:43
2	Cr 267.716†	5174.4	5333.0	111.02 µg/L	111.02 ppb	11:33:22
2	Cu 324.752†	5867.3	3548.0	38.370 µg/L	38.370 ppb	11:33:22
2	Mn 257.610†	806895.8	824324.7	2694.4 µg/L	2694.4 ppb	11:33:16
2	Mo 202.031†	84.1	90.7	13.236 µg/L	13.236 ppb	11:33:43
2	Ni 231.604†	1815.7	1551.8	81.472 µg/L	81.472 ppb	11:33:43
2	P 214.914†	304.0	283.9	493.79 µg/L	493.79 ppb	11:33:43
2	Pb 220.353†	316.0	235.8	57.748 µg/L	57.748 ppb	11:33:43

2	S 181.975 Axial†	48.0	31.6	131.37 µg/L	131.37 ppb	11:33:43
2	Sb 206.836†	33.4	10.4	7.9484 µg/L	7.9484 ppb	11:33:43
2	Se 196.026†	-41.3	-60.5	198.95 µg/L	198.95 ppb	11:33:43
2	SiO2†	178362.9	180866.1	36941 µg/L	36941 ppb	11:33:22
2	Si 251.611†	217955.2	222296.5	17373 µg/L	17373 ppb	11:33:16
2	Sn 189.927†	-6.7	-7.1	-13.783 µg/L	-13.783 ppb	11:33:43
2	Ti 334.940†	881085.8	899732.9	2077.2 µg/L	2077.2 ppb	11:33:16
2	Tl 190.801†	-48.9	-26.2	12.471 µg/L	12.471 ppb	11:33:43
2	U 409.014†	-2433.2	-2395.9	-219.77 µg/L	-219.77 ppb	11:33:16
2	V 292.402†	5603.5	5768.4	71.068 µg/L	71.068 ppb	11:33:22
2	Zn 213.857†	21967.7	21971.0	512.08 µg/L	512.08 ppb	11:33:22
3	Sc RADIAL	56272.8	56272.8	98.3 %		11:32:10
3	Al 396.153Radial†	66480.1	67687.9	47151 µg/L	47151 ppb	11:32:10
3	Ca 317.933Radial†	7952.2	7906.9	6863.7 µg/L	6863.7 ppb	11:32:30
3	Fe 238.204 Radial†	13553.7	13781.3	108870 µg/L	108870 ppb	11:32:10
3	K 766.490 Radial†	9300.5	9299.5	6401.0 µg/L	6401.0 ppb	11:32:10
3	Mg 279.077 IEC†	763.1	765.8	6665.1 µg/L	6665.1 ppb	11:32:30
3	Na 589.592 Radial†	6094.1	5688.8	1770.2 µg/L	1770.2 ppb	11:32:10
3	Sr 421.552†	7099.1	7200.1	71.051 µg/L	71.051 ppb	11:32:10
3	Sc 361.383	1950227.9	1950227.9	98.233 %		11:33:50
3	Y 371.029	1446087.7	1446087.7	105.99 %		11:33:50
3	Ag 328.068†	-1858.6	-1331.0	-2.8730 µg/L	-2.8730 ppb	11:33:56
3	As 188.979†	9.2	7.6	19.859 µg/L	19.859 ppb	11:34:16
3	B 249.677†	923.2	645.5	-30.029 µg/L	-30.029 ppb	11:33:56
3	Ba 233.527†	17727.7	18072.5	445.87 µg/L	445.87 ppb	11:33:56
3	Be 313.107†	7999.2	11743.5	6.5265 µg/L	6.5265 ppb	11:33:56
3	Cd 226.502†	181.6	331.1	-3.6296 µg/L	-3.6296 ppb	11:34:16
3	Co 228.616†	768.0	790.7	32.560 µg/L	32.560 ppb	11:34:16
3	Cr 267.716†	4950.8	5088.4	105.93 µg/L	105.93 ppb	11:33:56
3	Cu 324.752†	5767.9	3427.5	37.770 µg/L	37.770 ppb	11:33:56
3	Mn 257.610†	789765.8	804235.4	2629.2 µg/L	2629.2 ppb	11:33:50
3	Mo 202.031†	74.2	80.3	12.247 µg/L	12.247 ppb	11:34:16
3	Ni 231.604†	1719.8	1448.3	76.148 µg/L	76.148 ppb	11:34:16
3	P 214.914†	302.8	281.6	488.49 µg/L	488.49 ppb	11:34:16
3	Pb 220.353†	302.6	221.1	54.039 µg/L	54.039 ppb	11:34:16
3	S 181.975 Axial†	42.1	25.4	105.52 µg/L	105.52 ppb	11:34:16
3	Sb 206.836†	31.7	8.6	6.2700 µg/L	6.2700 ppb	11:34:16
3	Se 196.026†	-32.3	-51.3	216.06 µg/L	216.06 ppb	11:34:16
3	SiO2†	172991.1	174811.6	35705 µg/L	35705 ppb	11:33:56
3	Si 251.611†	214170.4	217727.4	17015 µg/L	17015 ppb	11:33:50
3	Sn 189.927†	-10.2	-10.6	-15.457 µg/L	-15.457 ppb	11:34:16
3	Ti 334.940†	860736.1	876122.2	2022.7 µg/L	2022.7 ppb	11:33:50
3	Tl 190.801†	-47.9	-25.0	13.578 µg/L	13.578 ppb	11:34:16
3	U 409.014†	-2352.7	-2305.9	-212.30 µg/L	-212.30 ppb	11:33:50
3	V 292.402†	5403.1	5545.9	68.973 µg/L	68.973 ppb	11:33:56
3	Zn 213.857†	21319.7	21239.1	494.78 µg/L	494.78 ppb	11:33:56

## Mean Data: 245688002|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1953200.4	98.383 %	0.5560			0.57%
Sc RADIAL	56406.0	98.5 %	1.02			1.04%
Y 371.029	1451028.1	106.35 %	0.706			0.66%
Ag 328.068†	-1357.6	-3.0821 µg/L	0.32295	-3.0821 ppb	0.32295	10.48%
Al 396.153Radial†	67381.3	46937 µg/L	571.6	46937 ppb	571.6	1.22%
As 188.979†	6.6	18.000 µg/L	9.1223	18.000 ppb	9.1223	50.68%
B 249.677†	630.6	-30.520 µg/L	1.3810	-30.520 ppb	1.3810	4.52%
Ba 233.527†	18383.8	453.55 µg/L	8.654	453.55 ppb	8.654	1.91%
Be 313.107†	11998.4	6.6731 µg/L	0.13322	6.6731 ppb	0.13322	2.00%
Ca 317.933Radial†	7913.8	6869.7 µg/L	77.25	6869.7 ppb	77.25	1.12%
Cd 226.502†	344.8	-3.2434 µg/L	0.36619	-3.2434 ppb	0.36619	11.29%
Co 228.616†	827.5	34.209 µg/L	1.4546	34.209 ppb	1.4546	4.25%
Cr 267.716†	5211.9	108.50 µg/L	2.546	108.50 ppb	2.546	2.35%
Cu 324.752†	3483.0	38.104 µg/L	0.3057	38.104 ppb	0.3057	0.80%
Fe 238.204 Radial†	13752.1	108640 µg/L	1082.0	108640 ppb	1082.0	1.00%
K 766.490 Radial†	9281.5	6388.6 µg/L	63.83	6388.6 ppb	63.83	1.00%
Mg 279.077 IEC†	765.3	6661.0 µg/L	55.74	6661.0 ppb	55.74	0.84%
Mn 257.610†	815237.7	2665.0 µg/L	33.03	2665.0 ppb	33.03	1.24%
Mo 202.031†	84.2	12.625 µg/L	0.5342	12.625 ppb	0.5342	4.23%
Na 589.592 Radial†	5674.0	1765.6 µg/L	19.23	1765.6 ppb	19.23	1.09%

Ni 231.604†	1511.2	79.390 µg/L	2.8451	79.390 ppb	2.8451	3.58%
P 214.914†	290.2	505.83 µg/L	25.587	505.83 ppb	25.587	5.06%
Pb 220.353†	228.9	56.004 µg/L	1.8645	56.004 ppb	1.8645	3.33%
S 181.975 Axial†	27.4	114.13 µg/L	14.928	114.13 ppb	14.928	13.08%
Sb 206.836†	6.7	4.4941 µg/L	4.60664	4.4941 ppb	4.60664	102.50%
Se 196.026†	-57.7	206.14 µg/L	8.871	206.14 ppb	8.871	4.30%
SiO2†	177509.4	36256 µg/L	629.2	36256 ppb	629.2	1.74%
Si 251.611†	220325.8	17219 µg/L	183.5	17219 ppb	183.5	1.07%
Sn 189.927†	-8.2	-14.376 µg/L	0.9376	-14.376 ppb	0.9376	6.52%
Sr 421.552†	7181.4	70.866 µg/L	0.5837	70.866 ppb	0.5837	0.82%
Ti 334.940†	889617.4	2053.8 µg/L	28.09	2053.8 ppb	28.09	1.37%
Tl 190.801†	-27.1	11.131 µg/L	3.3261	11.131 ppb	3.3261	29.88%
U 409.014†	-2362.5	-217.09 µg/L	4.162	-217.09 ppb	4.162	1.92%
V 292.402†	5654.3	70.046 µg/L	1.0482	70.046 ppb	1.0482	1.50%
Zn 213.857†	21561.8	502.38 µg/L	8.838	502.38 ppb	8.838	1.76%

Sequence No.: 29

Sample ID: 245688003|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 409

Date Collected: 2/12/2010 11:34:25

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688003|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56559.7	56559.7	98.8 %		11:34:58
1	Al 396.153Radial†	86729.3	87849.8	61195 µg/L	61195 ppb	11:34:58
1	Ca 317.933Radial†	18881.9	18933.7	16436 µg/L	16436 ppb	11:34:58
1	Fe 238.204 Radial†	13870.3	14032.0	110850 µg/L	110850 ppb	11:34:58
1	K 766.490 Radial†	11160.7	11135.3	7664.6 µg/L	7664.6 ppb	11:34:58
1	Mg 279.077 IEC†	1089.2	1092.2	9553.2 µg/L	9553.2 ppb	11:35:18
1	Na 589.592 Radial†	6369.1	5935.9	1847.0 µg/L	1847.0 ppb	11:34:58
1	Sr 421.552†	12803.8	12940.2	127.70 µg/L	127.70 ppb	11:34:58
1	Sc 361.383	1959919.1	1959919.1	98.721 %		11:36:23
1	Y 371.029	1426663.9	1426663.9	104.56 %		11:36:23
1	Ag 328.068†	-1896.6	-1360.1	-2.9113 µg/L	-2.9113 ppb	11:36:28
1	As 188.979†	3.9	2.1	9.4986 µg/L	9.4986 ppb	11:36:49
1	B 249.677†	1000.0	718.7	-27.939 µg/L	-27.939 ppb	11:36:28
1	Ba 233.527†	28931.9	29332.7	723.63 µg/L	723.63 ppb	11:36:28
1	Be 313.107†	13316.8	17089.6	9.9363 µg/L	9.9363 ppb	11:36:28
1	Cd 226.502†	204.3	353.1	-3.2495 µg/L	-3.2495 ppb	11:36:49
1	Co 228.616†	770.9	789.8	33.001 µg/L	33.001 ppb	11:36:49
1	Cr 267.716†	8089.7	8243.0	171.58 µg/L	171.58 ppb	11:36:28
1	Cu 324.752†	5807.7	3438.8	38.120 µg/L	38.120 ppb	11:36:28
1	Mn 257.610†	916918.0	929059.1	3035.2 µg/L	3035.2 ppb	11:36:23
1	Mo 202.031†	120.9	127.3	17.062 µg/L	17.062 ppb	11:36:49
1	Ni 231.604†	2328.3	2055.9	107.55 µg/L	107.55 ppb	11:36:49
1	P 214.914†	370.7	348.8	625.99 µg/L	625.99 ppb	11:36:49
1	Pb 220.353†	300.1	217.1	53.717 µg/L	53.717 ppb	11:36:49
1	S 181.975 Axial†	75.6	59.1	245.97 µg/L	245.97 ppb	11:36:49
1	Sb 206.836†	35.6	12.4	8.3080 µg/L	8.3080 ppb	11:36:49
1	Se 196.026†	-37.3	-56.1	209.24 µg/L	209.24 ppb	11:36:49
1	SiO2†	200138.6	201440.0	41143 µg/L	41143 ppb	11:36:23
1	Si 251.611†	242135.9	244977.1	19145 µg/L	19145 ppb	11:36:23
1	Sn 189.927†	-2.9	-3.2	-12.175 µg/L	-12.175 ppb	11:36:49
1	Ti 334.940†	766553.2	776386.7	1792.3 µg/L	1792.3 ppb	11:36:23
1	Tl 190.801†	-54.6	-31.6	5.1093 µg/L	5.1093 ppb	11:36:49
1	U 409.014†	-2114.4	-2052.7	-191.55 µg/L	-191.55 ppb	11:36:23
1	V 292.402†	6283.9	6410.9	78.160 µg/L	78.160 ppb	11:36:28
1	Zn 213.857†	11837.6	11526.9	265.42 µg/L	265.42 ppb	11:36:28
2	Sc RADIAL	56790.9	56790.9	99.2 %		11:35:24
2	Al 396.153Radial†	87392.5	88161.2	61412 µg/L	61412 ppb	11:35:24
2	Ca 317.933Radial†	19076.1	19051.7	16538 µg/L	16538 ppb	11:35:24
2	Fe 238.204 Radial†	13910.2	14015.0	110720 µg/L	110720 ppb	11:35:24
2	K 766.490 Radial†	11282.3	11211.9	7717.4 µg/L	7717.4 ppb	11:35:24
2	Mg 279.077 IEC†	1086.0	1084.4	9484.9 µg/L	9484.9 ppb	11:35:44
2	Na 589.592 Radial†	6462.1	6003.3	1868.0 µg/L	1868.0 ppb	11:35:24
2	Sr 421.552†	12945.3	13030.2	128.58 µg/L	128.58 ppb	11:35:24
2	Sc 361.383	1968717.5	1968717.5	99.164 %		11:36:56
2	Y 371.029	1433068.3	1433068.3	105.03 %		11:36:56
2	Ag 328.068†	-1923.3	-1378.5	-3.0558 µg/L	-3.0558 ppb	11:37:02
2	As 188.979†	11.1	9.4	22.770 µg/L	22.770 ppb	11:37:23
2	B 249.677†	1027.1	741.5	-26.929 µg/L	-26.929 ppb	11:37:02
2	Ba 233.527†	29253.2	29525.7	728.39 µg/L	728.39 ppb	11:37:02
2	Be 313.107†	13379.3	17092.4	9.9348 µg/L	9.9348 ppb	11:37:02
2	Cd 226.502†	209.3	357.2	-3.1285 µg/L	-3.1285 ppb	11:37:23
2	Co 228.616†	775.7	791.1	33.047 µg/L	33.047 ppb	11:37:23
2	Cr 267.716†	8200.3	8318.0	173.14 µg/L	173.14 ppb	11:37:02
2	Cu 324.752†	5866.0	3471.3	38.316 µg/L	38.316 ppb	11:37:02
2	Mn 257.610†	924694.5	932750.3	3047.2 µg/L	3047.2 ppb	11:36:56
2	Mo 202.031†	126.3	132.2	17.549 µg/L	17.549 ppb	11:37:23
2	Ni 231.604†	2335.2	2052.4	107.36 µg/L	107.36 ppb	11:37:23
2	P 214.914†	370.9	347.4	623.14 µg/L	623.14 ppb	11:37:23
2	Pb 220.353†	291.1	206.7	51.118 µg/L	51.118 ppb	11:37:23



2	S 181.975 Axial†	81.1	64.4	267.68 µg/L	267.68 ppb	11:37:23
2	Sb 206.836†	38.1	14.8	10.519 µg/L	10.519 ppb	11:37:23
2	Se 196.026†	-40.2	-58.9	204.91 µg/L	204.91 ppb	11:37:23
2	SiO2†	202157.2	202569.6	41374 µg/L	41374 ppb	11:36:56
2	Si 251.611†	244359.3	246123.1	19235 µg/L	19235 ppb	11:36:56
2	Sn 189.927†	-9.5	-9.9	-15.055 µg/L	-15.055 ppb	11:37:23
2	Ti 334.940†	773762.7	780186.8	1801.1 µg/L	1801.1 ppb	11:36:56
2	Tl 190.801†	-48.0	-24.7	14.350 µg/L	14.350 ppb	11:37:23
2	U 409.014†	-1992.1	-1919.8	-180.20 µg/L	-180.20 ppb	11:36:56
2	V 292.402†	6361.8	6461.1	78.670 µg/L	78.670 ppb	11:37:02
2	Zn 213.857†	11932.5	11569.0	266.43 µg/L	266.43 ppb	11:37:02
3	Sc RADIAL	56302.6	56302.6	98.3 %		11:35:50
3	Al 396.153Radial†	87146.2	88675.0	61770 µg/L	61770 ppb	11:35:50
3	Ca 317.933Radial†	18872.8	19011.8	16503 µg/L	16503 ppb	11:35:50
3	Fe 238.204 Radial†	13831.1	14056.2	111040 µg/L	111040 ppb	11:35:50
3	K 766.490 Radial†	11254.3	11282.1	7765.6 µg/L	7765.6 ppb	11:35:50
3	Mg 279.077 IEC†	1097.4	1105.5	9671.0 µg/L	9671.0 ppb	11:36:10
3	Na 589.592 Radial†	6405.6	6002.4	1867.7 µg/L	1867.7 ppb	11:35:50
3	Sr 421.552†	12859.7	13056.3	128.84 µg/L	128.84 ppb	11:35:50
3	Sc 361.383	1989595.6	1989595.6	100.22 %		11:37:31
3	Y 371.029	1443302.2	1443302.2	105.78 %		11:37:31
3	Ag 328.068†	-1831.8	-1266.8	-2.2158 µg/L	-2.2158 ppb	11:37:36
3	As 188.979†	10.3	8.5	21.161 µg/L	21.161 ppb	11:37:57
3	B 249.677†	961.8	665.5	-30.253 µg/L	-30.253 ppb	11:37:36
3	Ba 233.527†	27849.5	27815.5	686.20 µg/L	686.20 ppb	11:37:36
3	Be 313.107†	12408.1	15981.7	9.2766 µg/L	9.2766 ppb	11:37:36
3	Cd 226.502†	182.5	328.3	-3.9251 µg/L	-3.9251 ppb	11:37:57
3	Co 228.616†	728.8	736.1	30.662 µg/L	30.662 ppb	11:37:57
3	Cr 267.716†	7692.9	7724.8	160.79 µg/L	160.79 ppb	11:37:36
3	Cu 324.752†	5660.7	3204.3	36.598 µg/L	36.598 ppb	11:37:36
3	Mn 257.610†	895015.3	893350.0	2919.1 µg/L	2919.1 ppb	11:37:31
3	Mo 202.031†	115.9	120.5	16.377 µg/L	16.377 ppb	11:37:57
3	Ni 231.604†	2198.1	1890.9	99.033 µg/L	99.033 ppb	11:37:57
3	P 214.914†	351.7	324.3	576.76 µg/L	576.76 ppb	11:37:57
3	Pb 220.353†	294.8	207.3	51.285 µg/L	51.285 ppb	11:37:57
3	S 181.975 Axial†	78.3	60.7	252.48 µg/L	252.48 ppb	11:37:57
3	Sb 206.836†	32.5	8.8	5.0466 µg/L	5.0466 ppb	11:37:57
3	Se 196.026†	-38.2	-56.5	209.12 µg/L	209.12 ppb	11:37:57
3	SiO2†	196424.8	194710.3	39769 µg/L	39769 ppb	11:37:31
3	Si 251.611†	237193.7	236387.1	18474 µg/L	18474 ppb	11:37:31
3	Sn 189.927†	-14.3	-14.6	-17.090 µg/L	-17.090 ppb	11:37:57
3	Ti 334.940†	745480.2	743777.3	1717.0 µg/L	1717.0 ppb	11:37:31
3	Tl 190.801†	-51.2	-27.3	9.6852 µg/L	9.6852 ppb	11:37:57
3	U 409.014†	-2047.4	-1953.8	-183.15 µg/L	-183.15 ppb	11:37:31
3	V 292.402†	6002.8	6035.5	74.367 µg/L	74.367 ppb	11:37:36
3	Zn 213.857†	11463.4	10974.6	252.43 µg/L	252.43 ppb	11:37:36

Mean Data: 245688003|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1972744.1	99.367 %	0.7678			0.77%
Sc RADIAL	56551.1	98.7 %	0.43			0.43%
Y 371.029	1434344.8	105.13 %	0.615			0.59%
Ag 328.068†	-1335.1	-2.7276 µg/L	0.44909	-2.7276 ppb	0.44909	16.46%
Al 396.153Radial†	88228.7	61459 µg/L	290.3	61459 ppb	290.3	0.47%
As 188.979†	6.7	17.810 µg/L	7.2427	17.810 ppb	7.2427	40.67%
B 249.677†	708.6	-28.373 µg/L	1.7040	-28.373 ppb	1.7040	6.01%
Ba 233.527†	28891.3	712.74 µg/L	23.107	712.74 ppb	23.107	3.24%
Be 313.107†	16721.2	9.7159 µg/L	0.38047	9.7159 ppb	0.38047	3.92%
Ca 317.933Radial†	18999.1	16492 µg/L	52.1	16492 ppb	52.1	0.32%
Cd 226.502†	346.2	-3.4344 µg/L	0.42925	-3.4344 ppb	0.42925	12.50%
Co 228.616†	772.3	32.237 µg/L	1.3642	32.237 ppb	1.3642	4.23%
Cr 267.716†	8095.3	168.50 µg/L	6.723	168.50 ppb	6.723	3.99%
Cu 324.752†	3371.4	37.678 µg/L	0.9405	37.678 ppb	0.9405	2.50%
Fe 238.204 Radial†	14034.4	110870 µg/L	163.3	110870 ppb	163.3	0.15%
K 766.490 Radial†	11209.8	7715.9 µg/L	50.53	7715.9 ppb	50.53	0.65%
Mg 279.077 IEC†	1094.0	9569.7 µg/L	94.11	9569.7 ppb	94.11	0.98%
Mn 257.610†	918386.5	3000.5 µg/L	70.74	3000.5 ppb	70.74	2.36%
Mo 202.031†	126.7	16.996 µg/L	0.5892	16.996 ppb	0.5892	3.47%
Na 589.592 Radial†	5980.5	1860.9 µg/L	12.03	1860.9 ppb	12.03	0.65%

Ni 231.604†	1999.7	104.65 µg/L	4.864	104.65 ppb	4.864	4.65%
P 214.914†	340.2	608.63 µg/L	27.634	608.63 ppb	27.634	4.54%
Pb 220.353†	210.3	52.040 µg/L	1.4548	52.040 ppb	1.4548	2.80%
S 181.975 Axial†	61.4	255.38 µg/L	11.146	255.38 ppb	11.146	4.36%
Sb 206.836†	12.0	7.9580 µg/L	2.75315	7.9580 ppb	2.75315	34.60%
Se 196.026†	-57.2	207.76 µg/L	2.468	207.76 ppb	2.468	1.19%
SiO2†	199573.3	40762 µg/L	867.9	40762 ppb	867.9	2.13%
Si 251.611†	242495.8	18951 µg/L	415.9	18951 ppb	415.9	2.19%
Sn 189.927†	-9.2	-14.773 µg/L	2.4693	-14.773 ppb	2.4693	16.71%
Sr 421.552†	13008.9	128.37 µg/L	0.601	128.37 ppb	0.601	0.47%
Ti 334.940†	766783.6	1770.1 µg/L	46.22	1770.1 ppb	46.22	2.61%
Tl 190.801†	-27.8	9.7149 µg/L	4.62051	9.7149 ppb	4.62051	47.56%
U 409.014†	-1975.4	-184.96 µg/L	5.891	-184.96 ppb	5.891	3.19%
V 292.402†	6302.5	77.066 µg/L	2.3513	77.066 ppb	2.3513	3.05%
Zn 213.857†	11356.8	261.42 µg/L	7.808	261.42 ppb	7.808	2.99%

Sequence No.: 30  
 Sample ID: 245688004|948032|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 410  
 Date Collected: 2/12/2010 11:38:06  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: 245688004|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57318.7	57318.7	100 %		11:38:39
1	Al 396.153Radial†	114653.7	114589.8	79822 µg/L	79822 ppb	11:38:39
1	Ca 317.933Radial†	15380.3	15181.6	13179 µg/L	13179 ppb	11:38:39
1	Fe 238.204 Radial†	11749.5	11726.8	92642 µg/L	92642 ppb	11:39:00
1	K 766.490 Radial†	14452.9	14275.3	9826.0 µg/L	9826.0 ppb	11:38:39
1	Mg 279.077 IEC†	1357.1	1345.2	11813 µg/L	11813 ppb	11:39:00
1	Na 589.592 Radial†	2557.7	2041.9	635.38 µg/L	635.38 ppb	11:38:39
1	Sr 421.552†	13788.8	13752.8	135.71 µg/L	135.71 ppb	11:38:39
1	Sc 361.383	1981366.3	1981366.3	99.802 %		11:40:04
1	Y 371.029	1391423.5	1391423.5	101.98 %		11:40:04
1	Ag 328.068†	-1815.1	-1257.7	-2.8896 µg/L	-2.8896 ppb	11:40:10
1	As 188.979†	8.9	7.1	17.801 µg/L	17.801 ppb	11:40:30
1	B 249.677†	1053.3	761.1	-16.698 µg/L	-16.698 ppb	11:40:10
1	Ba 233.527†	35653.3	35750.2	882.03 µg/L	882.03 ppb	11:40:10
1	Be 313.107†	10498.7	14119.9	7.8835 µg/L	7.8835 ppb	11:40:10
1	Cd 226.502†	169.4	315.9	-2.1676 µg/L	-2.1676 ppb	11:40:30
1	Co 228.616†	711.1	721.4	28.673 µg/L	28.673 ppb	11:40:30
1	Cr 267.716†	7939.4	8003.8	166.64 µg/L	166.64 ppb	11:40:10
1	Cu 324.752†	8755.2	6328.4	54.673 µg/L	54.673 ppb	11:40:10
1	Mn 257.610†	814869.3	816753.9	2667.6 µg/L	2667.6 ppb	11:40:04
1	Mo 202.031†	6.6	11.4	4.6748 µg/L	4.6748 ppb	11:40:30
1	Ni 231.604†	2178.2	1880.0	98.232 µg/L	98.232 ppb	11:40:30
1	P 214.914†	257.7	231.6	408.57 µg/L	408.57 ppb	11:40:30
1	Pb 220.353†	413.3	327.2	82.869 µg/L	82.869 ppb	11:40:30
1	S 181.975 Axial†	99.2	82.0	340.84 µg/L	340.84 ppb	11:40:30
1	Sb 206.836†	37.4	13.8	9.7183 µg/L	9.7183 ppb	11:40:30
1	Se 196.026†	-23.4	-41.8	178.95 µg/L	178.95 ppb	11:40:30
1	SiO2†	228195.1	227357.8	46437 µg/L	46437 ppb	11:40:04
1	Si 251.611†	275843.7	276097.0	21577 µg/L	21577 ppb	11:40:04
1	Sn 189.927†	-9.4	-9.7	-12.764 µg/L	-12.764 ppb	11:40:30
1	Ti 334.940†	1010354.9	1012268.1	2336.7 µg/L	2336.7 ppb	11:40:04
1	Tl 190.801†	-57.1	-33.5	5.2613 µg/L	5.2613 ppb	11:40:30
1	U 409.014†	-1055.1	-968.1	-96.282 µg/L	-96.282 ppb	11:40:04
1	V 292.402†	12209.1	12279.0	135.32 µg/L	135.32 ppb	11:40:10
1	Zn 213.857†	9889.5	9445.1	217.09 µg/L	217.09 ppb	11:40:10
2	Sc RADIAL	57351.6	57351.6	100 %		11:39:05
2	Al 396.153Radial†	115264.0	115133.6	80201 µg/L	80201 ppb	11:39:05
2	Ca 317.933Radial†	15412.8	15205.3	13199 µg/L	13199 ppb	11:39:05
2	Fe 238.204 Radial†	11719.2	11689.8	92349 µg/L	92349 ppb	11:39:26
2	K 766.490 Radial†	14550.0	14364.0	9887.0 µg/L	9887.0 ppb	11:39:05
2	Mg 279.077 IEC†	1357.2	1344.5	11808 µg/L	11808 ppb	11:39:26
2	Na 589.592 Radial†	2539.8	2022.6	629.36 µg/L	629.36 ppb	11:39:05
2	Sr 421.552†	13850.0	13806.0	136.24 µg/L	136.24 ppb	11:39:05
2	Sc 361.383	1974473.0	1974473.0	99.454 %		11:40:38
2	Y 371.029	1387408.4	1387408.4	101.69 %		11:40:38
2	Ag 328.068†	-1678.5	-1126.7	-1.9189 µg/L	-1.9189 ppb	11:40:44
2	As 188.979†	16.3	14.5	31.374 µg/L	31.374 ppb	11:41:04
2	B 249.677†	1052.3	763.8	-16.433 µg/L	-16.433 ppb	11:40:44
2	Ba 233.527†	35255.0	35474.5	875.22 µg/L	875.22 ppb	11:40:44
2	Be 313.107†	10450.2	14107.9	7.8741 µg/L	7.8741 ppb	11:40:44
2	Cd 226.502†	167.9	315.0	-2.1565 µg/L	-2.1565 ppb	11:41:04
2	Co 228.616†	708.5	721.2	28.658 µg/L	28.658 ppb	11:41:04
2	Cr 267.716†	7900.4	7992.3	166.40 µg/L	166.40 ppb	11:40:44
2	Cu 324.752†	8685.4	6288.8	54.371 µg/L	54.371 ppb	11:40:44
2	Mn 257.610†	815196.9	819933.8	2677.9 µg/L	2677.9 ppb	11:40:38
2	Mo 202.031†	17.0	22.0	5.7254 µg/L	5.7254 ppb	11:41:04
2	Ni 231.604†	2189.7	1899.2	99.220 µg/L	99.220 ppb	11:41:04
2	P 214.914†	266.6	241.4	428.69 µg/L	428.69 ppb	11:41:04
2	Pb 220.353†	400.7	316.0	80.085 µg/L	80.085 ppb	11:41:04

2	S 181.975 Axial†	104.0	87.1	362.27 µg/L	362.27 ppb	11:41:04
2	Sb 206.836†	33.8	10.3	6.5229 µg/L	6.5229 ppb	11:41:04
2	Se 196.026†	-23.5	-41.9	177.94 µg/L	177.94 ppb	11:41:04
2	SiO2†	227638.2	227596.1	46486 µg/L	46486 ppb	11:40:38
2	Si 251.611†	275197.3	276412.0	21602 µg/L	21602 ppb	11:40:38
2	Sn 189.927†	-9.0	-9.4	-12.562 µg/L	-12.562 ppb	11:41:04
2	Ti 334.940†	1008974.3	1014414.4	2341.7 µg/L	2341.7 ppb	11:40:38
2	Tl 190.801†	-46.7	-23.2	18.877 µg/L	18.877 ppb	11:41:04
2	U 409.014†	-1000.2	-916.6	-91.846 µg/L	-91.846 ppb	11:40:38
2	V 292.402†	12096.4	12208.4	134.59 µg/L	134.59 ppb	11:40:44
2	Zn 213.857†	9825.0	9414.9	216.39 µg/L	216.39 ppb	11:40:44
3	Sc RADIAL	57415.0	57415.0	100 %		11:39:31
3	Al 396.153Radial†	115269.7	115012.2	80117 µg/L	80117 ppb	11:39:31
3	Ca 317.933Radial†	15408.6	15184.1	13181 µg/L	13181 ppb	11:39:31
3	Fe 238.204 Radial†	11692.8	11650.5	92039 µg/L	92039 ppb	11:39:51
3	K 766.490 Radial†	14583.6	14381.5	9899.0 µg/L	9899.0 ppb	11:39:31
3	Mg 279.077 IEC†	1360.0	1345.9	11820 µg/L	11820 ppb	11:39:51
3	Na 589.592 Radial†	2532.9	2012.9	626.35 µg/L	626.35 ppb	11:39:31
3	Sr 421.552†	13831.1	13771.8	135.90 µg/L	135.90 ppb	11:39:31
3	Sc 361.383	1964688.3	1964688.3	98.962 %		11:41:12
3	Y 371.029	1379381.9	1379381.9	101.10 %		11:41:12
3	Ag 328.068†	-1734.1	-1191.3	-2.4557 µg/L	-2.4557 ppb	11:41:18
3	As 188.979†	6.4	4.7	13.263 µg/L	13.263 ppb	11:41:38
3	B 249.677†	1034.7	751.4	-16.794 µg/L	-16.794 ppb	11:41:18
3	Ba 233.527†	34291.6	34677.4	855.56 µg/L	855.56 ppb	11:41:18
3	Be 313.107†	10010.2	13715.7	7.6429 µg/L	7.6429 ppb	11:41:18
3	Cd 226.502†	153.9	301.6	-2.4734 µg/L	-2.4734 ppb	11:41:38
3	Co 228.616†	666.7	682.6	26.926 µg/L	26.926 ppb	11:41:38
3	Cr 267.716†	7613.4	7741.8	161.18 µg/L	161.18 ppb	11:41:18
3	Cu 324.752†	8521.7	6167.0	53.523 µg/L	53.523 ppb	11:41:18
3	Mn 257.610†	801261.7	809934.6	2645.3 µg/L	2645.3 ppb	11:41:12
3	Mo 202.031†	5.2	10.1	4.5201 µg/L	4.5201 ppb	11:41:38
3	Ni 231.604†	2085.1	1804.5	94.326 µg/L	94.326 ppb	11:41:38
3	P 214.914†	253.0	229.0	403.96 µg/L	403.96 ppb	11:41:38
3	Pb 220.353†	395.0	312.2	79.156 µg/L	79.156 ppb	11:41:38
3	S 181.975 Axial†	98.7	82.3	342.11 µg/L	342.11 ppb	11:41:38
3	Sb 206.836†	34.7	11.4	7.6202 µg/L	7.6202 ppb	11:41:38
3	Se 196.026†	-28.7	-47.4	169.26 µg/L	169.26 ppb	11:41:38
3	SiO2†	224697.7	225764.7	46112 µg/L	46112 ppb	11:41:12
3	Si 251.611†	271663.5	274219.2	21430 µg/L	21430 ppb	11:41:12
3	Sn 189.927†	-15.5	-15.9	-15.371 µg/L	-15.371 ppb	11:41:38
3	Ti 334.940†	989869.8	1000161.9	2308.8 µg/L	2308.8 ppb	11:41:12
3	Tl 190.801†	-49.6	-26.4	14.281 µg/L	14.281 ppb	11:41:38
3	U 409.014†	-1029.0	-950.7	-94.711 µg/L	-94.711 ppb	11:41:12
3	V 292.402†	11632.0	11799.8	130.40 µg/L	130.40 ppb	11:41:18
3	Zn 213.857†	9593.9	9230.6	212.08 µg/L	212.08 ppb	11:41:18

Mean Data: 245688004|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1973509.2	99.406 %	0.4221			0.42%
Sc RADIAL	57361.8	100 %	0.1			0.09%
Y 371.029	1386071.2	101.59 %	0.449			0.44%
Ag 328.068†	-1191.9	-2.4214 µg/L	0.48626	-2.4214 ppb	0.48626	20.08%
Al 396.153Radial†	114911.9	80047 µg/L	198.8	80047 ppb	198.8	0.25%
As 188.979†	8.8	20.813 µg/L	9.4235	20.813 ppb	9.4235	45.28%
B 249.677†	758.8	-16.641 µg/L	0.1872	-16.641 ppb	0.1872	1.12%
Ba 233.527†	35300.7	870.94 µg/L	13.746	870.94 ppb	13.746	1.58%
Be 313.107†	13981.2	7.8002 µg/L	0.13627	7.8002 ppb	0.13627	1.75%
Ca 317.933Radial†	15190.3	13186 µg/L	11.3	13186 ppb	11.3	0.09%
Cd 226.502†	310.8	-2.2658 µg/L	0.17984	-2.2658 ppb	0.17984	7.94%
Co 228.616†	708.4	28.086 µg/L	1.0043	28.086 ppb	1.0043	3.58%
Cr 267.716†	7912.6	164.74 µg/L	3.082	164.74 ppb	3.082	1.87%
Cu 324.752†	6261.4	54.189 µg/L	0.5963	54.189 ppb	0.5963	1.10%
Fe 238.204 Radial†	11689.0	92343 µg/L	301.6	92343 ppb	301.6	0.33%
K 766.490 Radial†	14340.3	9870.7 µg/L	39.17	9870.7 ppb	39.17	0.40%
Mg 279.077 IEC†	1345.2	11814 µg/L	6.1	11814 ppb	6.1	0.05%
Mn 257.610†	815540.8	2663.6 µg/L	16.64	2663.6 ppb	16.64	0.62%
Mo 202.031†	14.5	4.9735 µg/L	0.65580	4.9735 ppb	0.65580	13.19%
Na 589.592 Radial†	2025.8	630.37 µg/L	4.596	630.37 ppb	4.596	0.73%

Ni 231.604†	1861.2	97.260 µg/L	2.5879	97.260 ppb	2.5879	2.66%
P 214.914†	234.0	413.74 µg/L	13.147	413.74 ppb	13.147	3.18%
Pb 220.353†	318.5	80.704 µg/L	1.9323	80.704 ppb	1.9323	2.39%
S 181.975 Axial†	83.8	348.41 µg/L	12.021	348.41 ppb	12.021	3.45%
Sb 206.836†	11.8	7.9538 µg/L	1.62361	7.9538 ppb	1.62361	20.41%
Se 196.026†	-43.7	175.38 µg/L	5.323	175.38 ppb	5.323	3.04%
SiO2†	226906.2	46345 µg/L	203.4	46345 ppb	203.4	0.44%
Si 251.611†	275576.1	21536 µg/L	92.7	21536 ppb	92.7	0.43%
Sn 189.927†	-11.7	-13.566 µg/L	1.5667	-13.566 ppb	1.5667	11.55%
Sr 421.552†	13776.9	135.95 µg/L	0.266	135.95 ppb	0.266	0.20%
Ti 334.940†	1008948.1	2329.1 µg/L	17.74	2329.1 ppb	17.74	0.76%
Tl 190.801†	-27.7	12.806 µg/L	6.9266	12.806 ppb	6.9266	54.09%
U 409.014†	-945.1	-94.280 µg/L	2.2494	-94.280 ppb	2.2494	2.39%
V 292.402†	12095.8	133.44 µg/L	2.658	133.44 ppb	2.658	1.99%
Zn 213.857†	9363.5	215.19 µg/L	2.713	215.19 ppb	2.713	1.26%

Sequence No.: 31

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/12/2010 11:41:47

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56482.4	56482.4	98.6 %		11:42:27
1	Al 396.153Radial†	7026.4	7149.2	4969.7 µg/L	4969.7 ppb	11:42:27
1	Ca 317.933Radial†	5677.5	5570.2	4835.3 µg/L	4835.3 ppb	11:42:47
1	Fe 238.204 Radial†	633.7	628.9	4979.0 µg/L	4979.0 ppb	11:42:47
1	K 766.490 Radial†	7387.0	7324.1	5041.3 µg/L	5041.3 ppb	11:42:27
1	Mg 279.077 IEC†	582.9	580.3	5141.7 µg/L	5141.7 ppb	11:42:47
1	Na 589.592 Radial†	31700.8	31631.7	9842.7 µg/L	9842.7 ppb	11:42:27
1	Sr 421.552†	49347.7	50014.5	493.55 µg/L	493.55 ppb	11:42:27
1	Sc 361.383	1990397.4	1990397.4	100.26 %		11:43:51
1	Y 371.029	1359100.2	1359100.2	99.612 %		11:43:51
1	Ag 328.068†	64402.4	64798.6	495.39 µg/L	495.39 ppb	11:43:56
1	As 188.979†	277.6	275.1	504.67 µg/L	504.67 ppb	11:44:17
1	B 249.677†	12285.3	11959.6	491.23 µg/L	491.23 ppb	11:43:56
1	Ba 233.527†	20320.1	20294.1	501.47 µg/L	501.47 ppb	11:43:56
1	Be 313.107†	794485.6	796053.4	494.48 µg/L	494.48 ppb	11:43:51
1	Cd 226.502†	19084.9	19182.3	498.11 µg/L	498.11 ppb	11:43:56
1	Co 228.616†	10832.7	10813.9	502.37 µg/L	502.37 ppb	11:43:56
1	Cr 267.716†	24185.8	24172.5	503.35 µg/L	503.35 ppb	11:43:56
1	Cu 324.752†	77684.0	75041.1	496.30 µg/L	496.30 ppb	11:43:56
1	Mn 257.610†	152951.7	152825.0	497.37 µg/L	497.37 ppb	11:43:51
1	Mo 202.031†	5018.4	5010.4	505.89 µg/L	505.89 ppb	11:44:17
1	Ni 231.604†	10062.0	9733.8	502.04 µg/L	502.04 ppb	11:43:56
1	P 214.914†	1281.8	1251.9	2467.4 µg/L	2467.4 ppb	11:44:17
1	Pb 220.353†	2108.3	2016.0	505.27 µg/L	505.27 ppb	11:44:17
1	S 181.975 Axial†	259.6	241.5	1004.3 µg/L	1004.3 ppb	11:44:17
1	Sb 206.836†	564.3	539.1	501.34 µg/L	501.34 ppb	11:44:17
1	Se 196.026†	369.0	349.7	509.94 µg/L	509.94 ppb	11:44:17
1	SiO2†	27588.6	26227.0	5356.8 µg/L	5356.8 ppb	11:43:56
1	Si 251.611†	32517.8	32139.5	2511.7 µg/L	2511.7 ppb	11:43:56
1	Sn 189.927†	1171.9	1168.6	505.84 µg/L	505.84 ppb	11:44:17
1	Ti 334.940†	214259.1	213615.6	492.94 µg/L	492.94 ppb	11:43:51
1	Tl 190.801†	352.5	375.3	501.52 µg/L	501.52 ppb	11:44:17
1	U 409.014†	5862.3	5936.4	505.52 µg/L	505.52 ppb	11:43:56
1	V 292.402†	49432.5	49351.7	505.01 µg/L	505.01 ppb	11:43:56
1	Zn 213.857†	21775.4	21255.6	497.55 µg/L	497.55 ppb	11:43:56
2	Sc RADIAL	56824.7	56824.7	99.2 %		11:42:53
2	Al 396.153Radial†	7011.5	7091.3	4929.3 µg/L	4929.3 ppb	11:42:53
2	Ca 317.933Radial†	5673.7	5531.8	4801.9 µg/L	4801.9 ppb	11:43:13
2	Fe 238.204 Radial†	634.1	625.4	4951.4 µg/L	4951.4 ppb	11:43:13
2	K 766.490 Radial†	7434.9	7327.3	5043.5 µg/L	5043.5 ppb	11:42:53
2	Mg 279.077 IEC†	580.5	574.2	5088.4 µg/L	5088.4 ppb	11:43:13
2	Na 589.592 Radial†	31813.2	31551.3	9817.6 µg/L	9817.6 ppb	11:42:53
2	Sr 421.552†	49680.4	50048.4	493.88 µg/L	493.88 ppb	11:42:53
2	Sc 361.383	1973693.8	1973693.8	99.415 %		11:44:24
2	Y 371.029	1347479.6	1347479.6	98.760 %		11:44:24
2	Ag 328.068†	63831.8	64768.4	495.15 µg/L	495.15 ppb	11:44:30
2	As 188.979†	277.0	276.8	507.77 µg/L	507.77 ppb	11:44:50
2	B 249.677†	12190.8	11968.3	491.60 µg/L	491.60 ppb	11:44:30
2	Ba 233.527†	20072.0	20216.1	499.54 µg/L	499.54 ppb	11:44:30
2	Be 313.107†	788368.9	796607.3	494.82 µg/L	494.82 ppb	11:44:24
2	Cd 226.502†	18849.0	19106.1	496.14 µg/L	496.14 ppb	11:44:30
2	Co 228.616†	10723.6	10795.6	501.52 µg/L	501.52 ppb	11:44:30
2	Cr 267.716†	23834.6	24023.4	500.24 µg/L	500.24 ppb	11:44:30
2	Cu 324.752†	77020.2	75029.1	496.22 µg/L	496.22 ppb	11:44:30
2	Mn 257.610†	151977.5	153136.3	498.38 µg/L	498.38 ppb	11:44:24
2	Mo 202.031†	4989.5	5023.7	507.22 µg/L	507.22 ppb	11:44:50
2	Ni 231.604†	9958.1	9714.2	501.03 µg/L	501.03 ppb	11:44:30
2	P 214.914†	1271.1	1251.9	2467.6 µg/L	2467.6 ppb	11:44:50
2	Pb 220.353†	2089.8	2015.2	505.08 µg/L	505.08 ppb	11:44:50

2	S 181.975 Axial†	253.0	237.1	986.05 µg/L	986.05 ppb	11:44:50
2	Sb 206.836†	559.6	539.2	501.46 µg/L	501.46 ppb	11:44:50
2	Se 196.026†	368.9	352.7	514.23 µg/L	514.23 ppb	11:44:50
2	SiO2†	27384.5	26254.7	5362.4 µg/L	5362.4 ppb	11:44:30
2	Si 251.611†	32290.5	32185.4	2515.3 µg/L	2515.3 ppb	11:44:30
2	Sn 189.927†	1162.3	1168.8	505.92 µg/L	505.92 ppb	11:44:50
2	Ti 334.940†	212674.9	213830.7	493.44 µg/L	493.44 ppb	11:44:24
2	Tl 190.801†	361.1	387.0	516.87 µg/L	516.87 ppb	11:44:50
2	U 409.014†	5756.8	5879.8	500.70 µg/L	500.70 ppb	11:44:30
2	V 292.402†	48874.5	49207.7	503.55 µg/L	503.55 ppb	11:44:30
2	Zn 213.857†	21526.2	21188.8	495.98 µg/L	495.98 ppb	11:44:30
3	Sc RADIAL	57023.2	57023.2	99.6 %		11:43:18
3	Al 396.153Radial†	7026.6	7081.8	4924.3 µg/L	4924.3 ppb	11:43:18
3	Ca 317.933Radial†	5629.1	5467.1	4745.8 µg/L	4745.8 ppb	11:43:39
3	Fe 238.204 Radial†	623.3	612.3	4847.3 µg/L	4847.3 ppb	11:43:39
3	K 766.490 Radial†	7474.6	7341.1	5053.0 µg/L	5053.0 ppb	11:43:18
3	Mg 279.077 IEC†	582.8	574.5	5089.8 µg/L	5089.8 ppb	11:43:39
3	Na 589.592 Radial†	31902.4	31529.3	9810.8 µg/L	9810.8 ppb	11:43:18
3	Sr 421.552†	49722.3	49916.1	492.58 µg/L	492.58 ppb	11:43:18
3	Sc 361.383	1975155.8	1975155.8	99.489 %		11:44:57
3	Y 371.029	1349647.7	1349647.7	98.919 %		11:44:57
3	Ag 328.068†	61012.5	61887.1	473.03 µg/L	473.03 ppb	11:45:03
3	As 188.979†	243.1	242.5	444.90 µg/L	444.90 ppb	11:45:23
3	B 249.677†	11616.6	11382.0	467.41 µg/L	467.41 ppb	11:45:03
3	Ba 233.527†	18780.3	18902.9	467.08 µg/L	467.08 ppb	11:45:03
3	Be 313.107†	756360.8	763847.8	474.47 µg/L	474.47 ppb	11:44:57
3	Cd 226.502†	17547.4	17783.7	461.77 µg/L	461.77 ppb	11:45:03
3	Co 228.616†	9913.9	9973.7	463.28 µg/L	463.28 ppb	11:45:03
3	Cr 267.716†	21638.7	21798.4	453.92 µg/L	453.92 ppb	11:45:03
3	Cu 324.752†	71843.9	69768.9	461.46 µg/L	461.46 ppb	11:45:03
3	Mn 257.610†	146092.2	147107.5	478.77 µg/L	478.77 ppb	11:44:57
3	Mo 202.031†	4262.5	4289.2	433.09 µg/L	433.09 ppb	11:45:23
3	Ni 231.604†	9268.2	9013.4	464.89 µg/L	464.89 ppb	11:45:03
3	P 214.914†	1118.7	1097.9	2160.7 µg/L	2160.7 ppb	11:45:23
3	Pb 220.353†	1880.2	1802.9	451.79 µg/L	451.79 ppb	11:45:23
3	S 181.975 Axial†	230.2	213.9	889.70 µg/L	889.70 ppb	11:45:23
3	Sb 206.836†	493.4	472.3	438.83 µg/L	438.83 ppb	11:45:23
3	Se 196.026†	328.1	311.4	454.60 µg/L	454.60 ppb	11:45:23
3	SiO2†	25968.5	24811.0	5067.6 µg/L	5067.6 ppb	11:45:03
3	Si 251.611†	30558.5	30420.5	2377.4 µg/L	2377.4 ppb	11:45:03
3	Sn 189.927†	980.0	984.8	426.27 µg/L	426.27 ppb	11:45:23
3	Ti 334.940†	203178.1	204126.8	471.03 µg/L	471.03 ppb	11:44:57
3	Tl 190.801†	321.3	346.7	463.49 µg/L	463.49 ppb	11:45:23
3	U 409.014†	5254.8	5371.0	457.30 µg/L	457.30 ppb	11:45:03
3	V 292.402†	45177.5	45455.3	464.88 µg/L	464.88 ppb	11:45:03
3	Zn 213.857†	20047.9	19686.9	460.79 µg/L	460.79 ppb	11:45:03

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1979749.0	99.720 %	0.4660			0.47%
Sc RADIAL	56776.8	99.1 %	0.48			0.48%
Y 371.029	1352075.8	99.097 %	0.4529			0.46%
Ag 328.068†	63818.0	487.86 µg/L	12.843	487.86 ppb	12.843	2.63%
QC value within limits for Ag 328.068 Recovery = 97.57%						
Al 396.153Radial†	7107.4	4941.1 µg/L	24.90	4941.1 ppb	24.90	0.50%
QC value within limits for Al 396.153Radial Recovery = 98.82%						
As 188.979†	264.8	485.78 µg/L	35.436	485.78 ppb	35.436	7.29%
QC value within limits for As 188.979 Recovery = 97.16%						
B 249.677†	11770.0	483.42 µg/L	13.860	483.42 ppb	13.860	2.87%
QC value within limits for B 249.677 Recovery = 96.68%						
Ba 233.527†	19804.4	489.36 µg/L	19.322	489.36 ppb	19.322	3.95%
QC value within limits for Ba 233.527 Recovery = 97.87%						
Be 313.107†	785502.8	487.92 µg/L	11.650	487.92 ppb	11.650	2.39%
QC value within limits for Be 313.107 Recovery = 97.58%						
Ca 317.933Radial†	5523.0	4794.3 µg/L	45.25	4794.3 ppb	45.25	0.94%
QC value within limits for Ca 317.933Radial Recovery = 95.89%						
Cd 226.502†	18690.7	485.34 µg/L	20.436	485.34 ppb	20.436	4.21%
QC value within limits for Cd 226.502 Recovery = 97.07%						
Co 228.616†	10527.7	489.06 µg/L	22.331	489.06 ppb	22.331	4.57%

QC value within limits for Co 228.616 Recovery = 97.81%					
Cr 267.716†	23331.4	485.83 µg/L	27.686	485.83 ppb	5.70%
QC value within limits for Cr 267.716 Recovery = 97.17%					
Cu 324.752†	73279.7	484.66 µg/L	20.090	484.66 ppb	4.15%
QC value within limits for Cu 324.752 Recovery = 96.93%					
Fe 238.204 Radial†	622.2	4925.9 µg/L	69.45	4925.9 ppb	1.41%
QC value within limits for Fe 238.204 Radial Recovery = 98.52%					
K 766.490 Radial†	7330.8	5045.9 µg/L	6.21	5045.9 ppb	0.12%
QC value within limits for K 766.490 Radial Recovery = 100.92%					
Mg 279.077 IEC†	576.3	5106.7 µg/L	30.38	5106.7 ppb	0.59%
QC value within limits for Mg 279.077 IEC Recovery = 102.13%					
Mn 257.610†	151023.0	491.51 µg/L	11.045	491.51 ppb	2.25%
QC value within limits for Mn 257.610 Recovery = 98.30%					
Mo 202.031†	4774.4	482.07 µg/L	42.419	482.07 ppb	8.80%
QC value within limits for Mo 202.031 Recovery = 96.41%					
Na 589.592 Radial†	31570.7	9823.7 µg/L	16.78	9823.7 ppb	0.17%
QC value within limits for Na 589.592 Radial Recovery = 98.24%					
Ni 231.604†	9487.1	489.32 µg/L	21.163	489.32 ppb	4.33%
QC value within limits for Ni 231.604 Recovery = 97.86%					
P 214.914†	1200.6	2365.2 µg/L	177.15	2365.2 ppb	7.49%
QC value within limits for P 214.914 Recovery = 94.61%					
Pb 220.353†	1944.7	487.38 µg/L	30.825	487.38 ppb	6.32%
QC value within limits for Pb 220.353 Recovery = 97.48%					
S 181.975 Axial†	230.8	960.03 µg/L	61.586	960.03 ppb	6.42%
QC value within limits for S 181.975 Axial Recovery = 96.00%					
Sb 206.836†	516.9	480.54 µg/L	36.127	480.54 ppb	7.52%
QC value within limits for Sb 206.836 Recovery = 96.11%					
Se 196.026†	337.9	492.92 µg/L	33.256	492.92 ppb	6.75%
QC value within limits for Se 196.026 Recovery = 98.58%					
SiO2†	25764.2	5262.3 µg/L	168.64	5262.3 ppb	3.20%
QC value within limits for SiO2 Recovery = 98.41%					
Si 251.611†	31581.8	2468.1 µg/L	78.62	2468.1 ppb	3.19%
QC value within limits for Si 251.611 Recovery = 98.73%					
Sn 189.927†	1107.4	479.34 µg/L	45.963	479.34 ppb	9.59%
QC value within limits for Sn 189.927 Recovery = 95.87%					
Sr 421.552†	49993.0	493.34 µg/L	0.678	493.34 ppb	0.14%
QC value within limits for Sr 421.552 Recovery = 98.67%					
Ti 334.940†	210524.4	485.80 µg/L	12.796	485.80 ppb	2.63%
QC value within limits for Ti 334.940 Recovery = 97.16%					
Tl 190.801†	369.7	493.96 µg/L	27.478	493.96 ppb	5.56%
QC value within limits for Tl 190.801 Recovery = 98.79%					
U 409.014†	5729.0	487.84 µg/L	26.557	487.84 ppb	5.44%
QC value within limits for U 409.014 Recovery = 97.57%					
V 292.402†	48004.9	491.15 µg/L	22.756	491.15 ppb	4.63%
QC value within limits for V 292.402 Recovery = 98.23%					
Zn 213.857†	20710.4	484.77 µg/L	20.782	484.77 ppb	4.29%
QC value within limits for Zn 213.857 Recovery = 96.95%					

All analyte(s) passed QC.



Sequence No.: 32  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/12/2010 11:45:33  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56173.2	56173.2	98.1 %		11:46:05
1	Al 396.153Radial†	-4.0	20.1	14.004 µg/L	14.004 ppb	11:46:05
1	Ca 317.933Radial†	193.2	10.1	8.7979 µg/L	8.7979 ppb	11:46:26
1	Fe 238.204 Radial†	18.0	4.7	36.911 µg/L	36.911 ppb	11:46:26
1	K 766.490 Radial†	112.8	-51.5	-35.442 µg/L	-35.442 ppb	11:46:05
1	Mg 279.077 IEC†	13.5	2.9	25.841 µg/L	25.841 ppb	11:46:26
1	Na 589.592 Radial†	462.1	-42.6	-13.270 µg/L	-13.270 ppb	11:46:05
1	Sr 421.552†	18.4	-6.7	-0.0661 µg/L	-0.0661 ppb	11:46:05
1	Sc 361.383	1968199.8	1968199.8	99.138 %		11:47:28
1	Y 371.029	1347729.2	1347729.2	98.778 %		11:47:28
1	Ag 328.068†	-623.5	-67.8	-0.5108 µg/L	-0.5108 ppb	11:47:33
1	As 188.979†	1.7	-0.1	-0.1377 µg/L	-0.1377 ppb	11:47:54
1	B 249.677†	319.9	28.4	1.1546 µg/L	1.1546 ppb	11:47:54
1	Ba 233.527†	-25.1	0.7	0.0182 µg/L	0.0182 ppb	11:47:54
1	Be 313.107†	-3591.7	-22.6	-0.0142 µg/L	-0.0142 ppb	11:47:33
1	Cd 226.502†	-132.5	12.6	0.3219 µg/L	0.3219 ppb	11:47:54
1	Co 228.616†	-17.1	-8.4	-0.3913 µg/L	-0.3913 ppb	11:47:54
1	Cr 267.716†	-13.6	34.8	0.7244 µg/L	0.7244 ppb	11:47:54
1	Cu 324.752†	2532.4	110.2	0.7330 µg/L	0.7330 ppb	11:47:33
1	Mn 257.610†	-122.7	140.9	0.4620 µg/L	0.4620 ppb	11:47:54
1	Mo 202.031†	-2.7	2.2	0.2193 µg/L	0.2193 ppb	11:47:54
1	Ni 231.604†	299.6	-0.3	-0.0143 µg/L	-0.0143 ppb	11:47:54
1	P 214.914†	23.9	-2.5	-5.1943 µg/L	-5.1943 ppb	11:47:54
1	Pb 220.353†	89.2	3.0	0.7572 µg/L	0.7572 ppb	11:47:54
1	S 181.975 Axial†	17.5	0.2	0.8921 µg/L	0.8921 ppb	11:47:54
1	Sb 206.836†	22.4	-1.1	-0.9820 µg/L	-0.9820 ppb	11:47:54
1	Se 196.026†	15.7	-2.5	-3.4893 µg/L	-3.4893 ppb	11:47:54
1	SiO2†	1368.4	89.4	18.256 µg/L	18.256 ppb	11:47:33
1	Si 251.611†	423.6	132.2	10.333 µg/L	10.333 ppb	11:47:54
1	Sn 189.927†	-0.8	-1.1	-0.4878 µg/L	-0.4878 ppb	11:47:54
1	Ti 334.940†	262.2	169.2	0.3887 µg/L	0.3887 ppb	11:47:33
1	Tl 190.801†	-26.2	-2.7	-3.5496 µg/L	-3.5496 ppb	11:47:54
1	U 409.014†	-91.3	-3.0	-0.2621 µg/L	-0.2621 ppb	11:47:33
1	V 292.402†	-19.6	25.9	0.2690 µg/L	0.2690 ppb	11:47:33
1	Zn 213.857†	478.8	18.9	0.4415 µg/L	0.4415 ppb	11:47:54
2	Sc RADIAL	55821.5	55821.5	97.5 %		11:46:31
2	Al 396.153Radial†	-4.5	19.6	13.631 µg/L	13.631 ppb	11:46:31
2	Ca 317.933Radial†	186.8	4.8	4.1705 µg/L	4.1705 ppb	11:46:52
2	Fe 238.204 Radial†	16.6	3.3	26.104 µg/L	26.104 ppb	11:46:52
2	K 766.490 Radial†	168.1	6.0	4.1241 µg/L	4.1241 ppb	11:46:31
2	Mg 279.077 IEC†	14.1	3.6	31.758 µg/L	31.758 ppb	11:46:52
2	Na 589.592 Radial†	468.9	-32.7	-10.180 µg/L	-10.180 ppb	11:46:31
2	Sr 421.552†	41.8	17.5	0.1723 µg/L	0.1723 ppb	11:46:31
2	Sc 361.383	1978959.5	1978959.5	99.680 %		11:48:00
2	Y 371.029	1356560.2	1356560.2	99.426 %		11:48:00
2	Ag 328.068†	-575.2	-16.0	-0.1188 µg/L	-0.1188 ppb	11:48:05
2	As 188.979†	-0.8	-2.6	-4.7865 µg/L	-4.7865 ppb	11:48:26
2	B 249.677†	308.4	15.2	0.6125 µg/L	0.6125 ppb	11:48:26
2	Ba 233.527†	-28.6	-2.7	-0.0664 µg/L	-0.0664 ppb	11:48:26
2	Be 313.107†	-3610.1	-21.3	-0.0134 µg/L	-0.0134 ppb	11:48:05
2	Cd 226.502†	-129.7	16.0	0.4141 µg/L	0.4141 ppb	11:48:26
2	Co 228.616†	-11.8	-3.0	-0.1400 µg/L	-0.1400 ppb	11:48:26
2	Cr 267.716†	-17.1	31.4	0.6544 µg/L	0.6544 ppb	11:48:26
2	Cu 324.752†	2507.5	71.4	0.4752 µg/L	0.4752 ppb	11:48:05
2	Mn 257.610†	-131.4	132.9	0.4342 µg/L	0.4342 ppb	11:48:26
2	Mo 202.031†	-1.4	3.5	0.3528 µg/L	0.3528 ppb	11:48:26
2	Ni 231.604†	308.7	7.2	0.3705 µg/L	0.3705 ppb	11:48:26
2	P 214.914†	34.8	8.3	16.564 µg/L	16.564 ppb	11:48:26
2	Pb 220.353†	98.8	12.2	3.0571 µg/L	3.0571 ppb	11:48:26

2	S 181.975 Axial†	18.1	0.7	2.9497 µg/L	2.9497 ppb	11:48:26
2	Sb 206.836†	26.6	3.1	2.8285 µg/L	2.8285 ppb	11:48:26
2	Se 196.026†	11.3	-7.0	-9.9895 µg/L	-9.9895 ppb	11:48:26
2	SiO2†	1367.5	80.9	16.530 µg/L	16.530 ppb	11:48:05
2	Si 251.611†	436.2	142.5	11.137 µg/L	11.137 ppb	11:48:26
2	Sn 189.927†	0.7	0.4	0.1695 µg/L	0.1695 ppb	11:48:26
2	Ti 334.940†	245.5	150.9	0.3461 µg/L	0.3461 ppb	11:48:05
2	Tl 190.801†	-20.5	3.2	4.2670 µg/L	4.2670 ppb	11:48:26
2	U 409.014†	-57.5	31.5	2.6796 µg/L	2.6796 ppb	11:48:05
2	V 292.402†	-36.1	9.5	0.1058 µg/L	0.1058 ppb	11:48:05
2	Zn 213.857†	479.9	17.4	0.4045 µg/L	0.4045 ppb	11:48:26
3	Sc RADIAL	56204.5	56204.5	98.1 %		11:46:57
3	Al 396.153Radial†	-5.5	18.6	12.976 µg/L	12.976 ppb	11:46:57
3	Ca 317.933Radial†	199.8	16.8	14.557 µg/L	14.557 ppb	11:47:18
3	Fe 238.204 Radial†	17.6	4.2	33.534 µg/L	33.534 ppb	11:47:18
3	K 766.490 Radial†	178.9	15.8	10.855 µg/L	10.855 ppb	11:46:57
3	Mg 279.077 IEC†	15.9	5.3	47.195 µg/L	47.195 ppb	11:47:18
3	Na 589.592 Radial†	470.8	-34.0	-10.574 µg/L	-10.574 ppb	11:46:57
3	Sr 421.552†	14.6	-10.5	-0.1040 µg/L	-0.1040 ppb	11:46:57
3	Sc 361.383	1977832.6	1977832.6	99.624 %		11:48:32
3	Y 371.029	1354702.1	1354702.1	99.289 %		11:48:32
3	Ag 328.068†	-577.3	-18.4	-0.1371 µg/L	-0.1371 ppb	11:48:37
3	As 188.979†	1.4	-0.4	-0.8098 µg/L	-0.8098 ppb	11:48:58
3	B 249.677†	326.3	33.3	1.3547 µg/L	1.3547 ppb	11:48:58
3	Ba 233.527†	-17.0	8.9	0.2204 µg/L	0.2204 ppb	11:48:58
3	Be 313.107†	-3542.6	44.3	0.0274 µg/L	0.0274 ppb	11:48:37
3	Cd 226.502†	-144.4	1.2	0.0271 µg/L	0.0271 ppb	11:48:58
3	Co 228.616†	-11.6	-2.8	-0.1290 µg/L	-0.1290 ppb	11:48:58
3	Cr 267.716†	-21.0	27.4	0.5708 µg/L	0.5708 ppb	11:48:58
3	Cu 324.752†	2508.0	73.3	0.4887 µg/L	0.4887 ppb	11:48:37
3	Mn 257.610†	-118.3	145.9	0.4770 µg/L	0.4770 ppb	11:48:58
3	Mo 202.031†	-5.6	-0.8	-0.0819 µg/L	-0.0819 ppb	11:48:58
3	Ni 231.604†	305.5	4.1	0.2133 µg/L	0.2133 ppb	11:48:58
3	P 214.914†	38.7	12.2	24.483 µg/L	24.483 ppb	11:48:58
3	Pb 220.353†	91.4	4.9	1.2133 µg/L	1.2133 ppb	11:48:58
3	S 181.975 Axial†	17.4	0.0	0.1535 µg/L	0.1535 ppb	11:48:58
3	Sb 206.836†	20.6	-3.0	-2.7504 µg/L	-2.7504 ppb	11:48:58
3	Se 196.026†	8.2	-10.1	-14.529 µg/L	-14.529 ppb	11:48:58
3	SiO2†	1377.4	91.7	18.723 µg/L	18.723 ppb	11:48:37
3	Si 251.611†	455.6	162.2	12.678 µg/L	12.678 ppb	11:48:58
3	Sn 189.927†	-3.8	-4.1	-1.7786 µg/L	-1.7786 ppb	11:48:58
3	Ti 334.940†	237.2	142.7	0.3261 µg/L	0.3261 ppb	11:48:37
3	Tl 190.801†	-16.9	6.8	8.9381 µg/L	8.9381 ppb	11:48:58
3	U 409.014†	-6.2	82.9	7.0638 µg/L	7.0638 ppb	11:48:37
3	V 292.402†	-40.3	5.2	0.0646 µg/L	0.0646 ppb	11:48:37
3	Zn 213.857†	470.8	8.5	0.1948 µg/L	0.1948 ppb	11:48:58

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1974997.3	99.481 %	0.2979			0.30%
Sc RADIAL	56066.4	97.9 %	0.37			0.38%
Y 371.029	1352997.2	99.164 %	0.3412			0.34%
Ag 328.068†	-34.1	-0.2555 µg/L	0.22120	-0.2555 ppb	0.22120	86.56%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	19.4	13.537 µg/L	0.5206	13.537 ppb	0.5206	3.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.0	-1.9114 µg/L	2.51255	-1.9114 ppb	2.51255	131.45%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	25.6	1.0406 µg/L	0.38404	1.0406 ppb	0.38404	36.91%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	2.3	0.0574 µg/L	0.14736	0.0574 ppb	0.14736	256.66%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	0.1	0.0000 µg/L	0.02380	0.0000 ppb	0.02380	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	10.6	9.1751 µg/L	5.20349	9.1751 ppb	5.20349	56.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	9.9	0.2544 µg/L	0.20218	0.2544 ppb	0.20218	79.48%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-4.7	-0.2201 µg/L	0.14835	-0.2201 ppb	0.14835	67.41%

Cr	267.716†	31.2	0.6499 µg/L	0.07688	0.6499 ppb	0.07688	11.83%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	85.0	0.5656 µg/L	0.14510	0.5656 ppb	0.14510	25.65%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	4.1	32.183 µg/L	5.5288	32.183 ppb	5.5288	17.18%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-9.9	-6.8210 µg/L	25.01365	-6.8210 ppb	25.01365	366.71%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	3.9	34.931 µg/L	11.0250	34.931 ppb	11.0250	31.56%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	139.9	0.4578 µg/L	0.02174	0.4578 ppb	0.02174	4.75%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	1.6	0.1634 µg/L	0.22270	0.1634 ppb	0.22270	136.29%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-36.4	-11.341 µg/L	1.6817	-11.341 ppb	1.6817	14.83%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	3.7	0.1898 µg/L	0.19351	0.1898 ppb	0.19351	101.94%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	6.0	11.951 µg/L	15.3671	11.951 ppb	15.3671	128.59%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	6.7	1.6759 µg/L	1.21771	1.6759 ppb	1.21771	72.66%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	0.3	1.3318 µg/L	1.44900	1.3318 ppb	1.44900	108.80%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	-0.3	-0.3013 µg/L	2.85104	-0.3013 ppb	2.85104	946.24%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-6.5	-9.3360 µg/L	5.54885	-9.3360 ppb	5.54885	59.44%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		87.3	17.836 µg/L	1.1552	17.836 ppb	1.1552	6.48%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	145.7	11.383 µg/L	1.1916	11.383 ppb	1.1916	10.47%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-1.6	-0.6990 µg/L	0.99109	-0.6990 ppb	0.99109	141.80%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	0.1	0.0007 µg/L	0.14976	0.0007 ppb	0.14976	>999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	154.3	0.3536 µg/L	0.03199	0.3536 ppb	0.03199	9.05%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	2.4	3.2185 µg/L	6.30950	3.2185 ppb	6.30950	196.04%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	37.1	3.1604 µg/L	3.68652	3.1604 ppb	3.68652	116.65%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	13.5	0.1465 µg/L	0.10812	0.1465 ppb	0.10812	73.82%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	14.9	0.3469 µg/L	0.13304	0.3469 ppb	0.13304	38.35%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 33

Sample ID: 245688005|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 411

Date Collected: 2/12/2010 11:49:08

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688005|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56122.8	56122.8	98.0 %		11:49:47
1	Al 396.153Radial†	26081.3	26640.9	18558 µg/L	18558 ppb	11:49:47
1	Ca 317.933Radial†	4524.2	4430.1	3845.7 µg/L	3845.7 ppb	11:50:07
1	Fe 238.204 Radial†	9690.9	9876.1	78021 µg/L	78021 ppb	11:49:47
1	K 766.490 Radial†	4600.0	4527.9	3116.7 µg/L	3116.7 ppb	11:49:47
1	Mg 279.077 IEC†	395.9	393.2	3398.6 µg/L	3398.6 ppb	11:50:07
1	Na 589.592 Radial†	4361.9	3937.7	1225.3 µg/L	1225.3 ppb	11:49:47
1	Sr 421.552†	3966.1	4022.1	39.690 µg/L	39.690 ppb	11:49:47
1	Sc 361.383	1967212.8	1967212.8	99.089 %		11:51:12
1	Y 371.029	1467893.9	1467893.9	107.59 %		11:51:12
1	Ag 328.068†	-1708.8	-1163.5	-3.7328 µg/L	-3.7328 ppb	11:51:17
1	As 188.979†	6.2	4.4	12.386 µg/L	12.386 ppb	11:51:38
1	B 249.677†	663.7	375.6	-24.572 µg/L	-24.572 ppb	11:51:17
1	Ba 233.527†	13922.1	14076.2	347.25 µg/L	347.25 ppb	11:51:17
1	Be 313.107†	4688.9	8332.4	4.4944 µg/L	4.4944 ppb	11:51:17
1	Cd 226.502†	110.7	257.8	-1.9083 µg/L	-1.9083 ppb	11:51:17
1	Co 228.616†	344.1	356.2	12.832 µg/L	12.832 ppb	11:51:38
1	Cr 267.716†	19521.4	19749.5	411.00 µg/L	411.00 ppb	11:51:17
1	Cu 324.752†	4550.6	2148.3	25.033 µg/L	25.033 ppb	11:51:17
1	Mn 257.610†	665863.0	672251.6	2196.1 µg/L	2196.1 ppb	11:51:12
1	Mo 202.031†	89.6	95.3	12.580 µg/L	12.580 ppb	11:51:38
1	Ni 231.604†	4364.7	4102.4	212.81 µg/L	212.81 ppb	11:51:17
1	P 214.914†	301.8	278.0	498.93 µg/L	498.93 ppb	11:51:38
1	Pb 220.353†	210.2	125.2	29.614 µg/L	29.614 ppb	11:51:38
1	S 181.975 Axial†	28.9	11.8	48.944 µg/L	48.944 ppb	11:51:38
1	Sb 206.836†	30.8	7.5	2.0684 µg/L	2.0684 ppb	11:51:38
1	Se 196.026†	-37.0	-55.7	129.07 µg/L	129.07 ppb	11:51:38
1	SiO2†	117000.9	116786.0	23853 µg/L	23853 ppb	11:51:17
1	Si 251.611†	143644.9	144670.9	11306 µg/L	11306 ppb	11:51:12
1	Sn 189.927†	1.7	1.4	-7.3423 µg/L	-7.3423 ppb	11:51:38
1	Ti 334.940†	769716.8	776700.5	1793.3 µg/L	1793.3 ppb	11:51:12
1	Tl 190.801†	-45.0	-21.7	7.9095 µg/L	7.9095 ppb	11:51:38
1	U 409.014†	-2066.7	-1996.6	-181.43 µg/L	-181.43 ppb	11:51:12
1	V 292.402†	2662.5	2732.6	37.648 µg/L	37.648 ppb	11:51:17
1	Zn 213.857†	17846.4	17546.5	408.79 µg/L	408.79 ppb	11:51:17
2	Sc RADIAL	56165.0	56165.0	98.1 %		11:50:13
2	Al 396.153Radial†	26184.0	26725.6	18617 µg/L	18617 ppb	11:50:13
2	Ca 317.933Radial†	4535.2	4438.0	3852.4 µg/L	3852.4 ppb	11:50:33
2	Fe 238.204 Radial†	9651.9	9828.9	77648 µg/L	77648 ppb	11:50:13
2	K 766.490 Radial†	4558.8	4482.3	3085.3 µg/L	3085.3 ppb	11:50:13
2	Mg 279.077 IEC†	394.1	391.0	3379.8 µg/L	3379.8 ppb	11:50:33
2	Na 589.592 Radial†	4380.3	3953.0	1230.0 µg/L	1230.0 ppb	11:50:13
2	Sr 421.552†	3969.9	4022.9	39.699 µg/L	39.699 ppb	11:50:13
2	Sc 361.383	1962436.3	1962436.3	98.848 %		11:51:45
2	Y 371.029	1463521.9	1463521.9	107.27 %		11:51:45
2	Ag 328.068†	-1597.6	-1055.1	-2.9339 µg/L	-2.9339 ppb	11:51:51
2	As 188.979†	5.7	3.9	11.513 µg/L	11.513 ppb	11:52:12
2	B 249.677†	659.3	372.8	-24.501 µg/L	-24.501 ppb	11:51:51
2	Ba 233.527†	13788.0	13974.7	344.74 µg/L	344.74 ppb	11:51:51
2	Be 313.107†	4628.5	8282.8	4.4661 µg/L	4.4661 ppb	11:51:51
2	Cd 226.502†	121.4	269.0	-1.5782 µg/L	-1.5782 ppb	11:51:51
2	Co 228.616†	353.7	366.7	13.336 µg/L	13.336 ppb	11:52:12
2	Cr 267.716†	19255.9	19528.8	406.41 µg/L	406.41 ppb	11:51:51
2	Cu 324.752†	4489.9	2098.1	24.650 µg/L	24.650 ppb	11:51:51
2	Mn 257.610†	662615.0	670601.3	2190.7 µg/L	2190.7 ppb	11:51:45
2	Mo 202.031†	86.6	92.5	12.284 µg/L	12.284 ppb	11:52:12
2	Ni 231.604†	4341.9	4090.0	212.16 µg/L	212.16 ppb	11:51:51
2	P 214.914†	307.0	284.0	511.35 µg/L	511.35 ppb	11:52:12
2	Pb 220.353†	215.3	130.9	31.040 µg/L	31.040 ppb	11:52:12

2	S 181.975 Axial†	28.9	11.8	49.000 µg/L	49.000 ppb	11:52:12
2	Sb 206.836†	34.7	11.4	5.7541 µg/L	5.7541 ppb	11:52:12
2	Se 196.026†	-24.6	-43.2	146.06 µg/L	146.06 ppb	11:52:12
2	SiO2†	116048.8	116110.2	23715 µg/L	23715 ppb	11:51:51
2	Si 251.611†	142989.4	144360.6	11282 µg/L	11282 ppb	11:51:45
2	Sn 189.927†	3.7	3.5	-6.3964 µg/L	-6.3964 ppb	11:52:12
2	Ti 334.940†	764947.8	773766.6	1786.5 µg/L	1786.5 ppb	11:51:45
2	Tl 190.801†	-46.3	-23.1	5.8322 µg/L	5.8322 ppb	11:52:12
2	U 409.014†	-1996.9	-1931.1	-175.79 µg/L	-175.79 ppb	11:51:45
2	V 292.402†	2653.5	2730.1	37.571 µg/L	37.571 ppb	11:51:51
2	Zn 213.857†	17694.6	17436.7	406.22 µg/L	406.22 ppb	11:51:51
3	Sc RADIAL	56360.1	56360.1	98.4 %		11:50:39
3	Al 396.153Radial†	26470.0	26923.7	18755 µg/L	18755 ppb	11:50:39
3	Ca 317.933Radial†	4567.4	4454.7	3867.0 µg/L	3867.0 ppb	11:50:59
3	Fe 238.204 Radial†	9829.9	9975.7	78808 µg/L	78808 ppb	11:50:39
3	K 766.490 Radial†	4654.7	4563.7	3141.3 µg/L	3141.3 ppb	11:50:39
3	Mg 279.077 IEC†	410.0	405.8	3509.4 µg/L	3509.4 ppb	11:50:59
3	Na 589.592 Radial†	4373.4	3930.6	1223.1 µg/L	1223.1 ppb	11:50:39
3	Sr 421.552†	4030.1	4070.1	40.164 µg/L	40.164 ppb	11:50:39
3	Sc 361.383	1964757.5	1964757.5	98.965 %		11:52:19
3	Y 371.029	1462633.6	1462633.6	107.20 %		11:52:19
3	Ag 328.068†	-1550.7	-1005.9	-2.4936 µg/L	-2.4936 ppb	11:52:25
3	As 188.979†	5.3	3.6	10.925 µg/L	10.925 ppb	11:52:45
3	B 249.677†	636.8	349.2	-26.105 µg/L	-26.105 ppb	11:52:25
3	Ba 233.527†	13258.8	13423.5	331.15 µg/L	331.15 ppb	11:52:25
3	Be 313.107†	4304.8	7950.2	4.2766 µg/L	4.2766 ppb	11:52:25
3	Cd 226.502†	107.6	254.9	-2.0835 µg/L	-2.0835 ppb	11:52:25
3	Co 228.616†	328.4	340.7	12.217 µg/L	12.217 ppb	11:52:45
3	Cr 267.716†	18458.4	18700.0	389.16 µg/L	389.16 ppb	11:52:25
3	Cu 324.752†	4395.8	1997.6	24.147 µg/L	24.147 ppb	11:52:25
3	Mn 257.610†	648603.0	655650.8	2142.2 µg/L	2142.2 ppb	11:52:19
3	Mo 202.031†	85.8	91.6	12.235 µg/L	12.235 ppb	11:52:45
3	Ni 231.604†	4184.1	3925.4	203.68 µg/L	203.68 ppb	11:52:25
3	P 214.914†	286.5	262.8	468.08 µg/L	468.08 ppb	11:52:45
3	Pb 220.353†	202.5	117.7	27.709 µg/L	27.709 ppb	11:52:45
3	S 181.975 Axial†	24.4	7.2	30.056 µg/L	30.056 ppb	11:52:45
3	Sb 206.836†	32.8	9.5	4.1583 µg/L	4.1583 ppb	11:52:45
3	Se 196.026†	-30.3	-49.0	140.84 µg/L	140.84 ppb	11:52:45
3	SiO2†	112283.2	112166.5	22910 µg/L	22910 ppb	11:52:25
3	Si 251.611†	140712.4	141888.9	11089 µg/L	11089 ppb	11:52:19
3	Sn 189.927†	4.5	4.2	-6.1788 µg/L	-6.1788 ppb	11:52:45
3	Ti 334.940†	746552.3	754264.5	1741.5 µg/L	1741.5 ppb	11:52:19
3	Tl 190.801†	-49.2	-26.0	1.6415 µg/L	1.6415 ppb	11:52:45
3	U 409.014†	-1955.8	-1887.1	-172.20 µg/L	-172.20 ppb	11:52:19
3	V 292.402†	2558.9	2631.4	36.673 µg/L	36.673 ppb	11:52:25
3	Zn 213.857†	17162.5	16877.9	393.03 µg/L	393.03 ppb	11:52:25

## Mean Data: 245688005|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1964802.2	98.967 %	0.1203			0.12%
Sc RADIAL	56216.0	98.2 %	0.22			0.23%
Y 371.029	1464683.1	107.35 %	0.206			0.19%
Ag 328.068†	-1074.8	-3.0534 µg/L	0.62821	-3.0534 ppb	0.62821	20.57%
Al 396.153Radial†	26763.4	18643 µg/L	101.1	18643 ppb	101.1	0.54%
As 188.979†	4.0	11.608 µg/L	0.7354	11.608 ppb	0.7354	6.33%
B 249.677†	365.8	-25.059 µg/L	0.9065	-25.059 ppb	0.9065	3.62%
Ba 233.527†	13824.8	341.05 µg/L	8.664	341.05 ppb	8.664	2.54%
Be 313.107†	8188.4	4.4124 µg/L	0.11842	4.4124 ppb	0.11842	2.68%
Ca 317.933Radial†	4440.9	3855.0 µg/L	10.88	3855.0 ppb	10.88	0.28%
Cd 226.502†	260.6	-1.8567 µg/L	0.25654	-1.8567 ppb	0.25654	13.82%
Co 228.616†	354.5	12.795 µg/L	0.5605	12.795 ppb	0.5605	4.38%
Cr 267.716†	19326.1	402.19 µg/L	11.515	402.19 ppb	11.515	2.86%
Cu 324.752†	2081.3	24.610 µg/L	0.4442	24.610 ppb	0.4442	1.80%
Fe 238.204 Radial†	9893.6	78159 µg/L	592.0	78159 ppb	592.0	0.76%
K 766.490 Radial†	4524.7	3114.4 µg/L	28.07	3114.4 ppb	28.07	0.90%
Mg 279.077 IEC†	396.7	3429.3 µg/L	70.07	3429.3 ppb	70.07	2.04%
Mn 257.610†	666167.9	2176.3 µg/L	29.67	2176.3 ppb	29.67	1.36%
Mo 202.031†	93.1	12.367 µg/L	0.1866	12.367 ppb	0.1866	1.51%
Na 589.592 Radial†	3940.4	1226.1 µg/L	3.57	1226.1 ppb	3.57	0.29%

Ni 231.604†	4039.3	209.55 µg/L	5.095	209.55 ppb	5.095	2.43%
P 214.914†	274.9	492.79 µg/L	22.282	492.79 ppb	22.282	4.52%
Pb 220.353†	124.6	29.454 µg/L	1.6714	29.454 ppb	1.6714	5.67%
S 181.975 Axial†	10.3	42.667 µg/L	10.9215	42.667 ppb	10.9215	25.60%
Sb 206.836†	9.4	3.9936 µg/L	1.84834	3.9936 ppb	1.84834	46.28%
Se 196.026†	-49.3	138.66 µg/L	8.700	138.66 ppb	8.700	6.27%
SiO2†	115020.9	23493 µg/L	509.6	23493 ppb	509.6	2.17%
Si 251.611†	143640.2	11226 µg/L	119.1	11226 ppb	119.1	1.06%
Sn 189.927†	3.0	-6.6392 µg/L	0.61857	-6.6392 ppb	0.61857	9.32%
Sr 421.552†	4038.4	39.851 µg/L	0.2710	39.851 ppb	0.2710	0.68%
Ti 334.940†	768243.9	1773.8 µg/L	28.17	1773.8 ppb	28.17	1.59%
Tl 190.801†	-23.6	5.1277 µg/L	3.19286	5.1277 ppb	3.19286	62.27%
U 409.014†	-1938.3	-176.48 µg/L	4.654	-176.48 ppb	4.654	2.64%
V 292.402†	2698.0	37.297 µg/L	0.5419	37.297 ppb	0.5419	1.45%
Zn 213.857†	17287.0	402.68 µg/L	8.458	402.68 ppb	8.458	2.10%

Sequence No.: 34

Sample ID: 245688006|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 412

Date Collected: 2/12/2010 11:52:55

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688006|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55509.6	55509.6	96.9 %			11:53:27
1	Al 396.153Radial†	44170.4	45599.1	31764 µg/L	31764 ppb	31764 ppb	11:53:27
1	Ca 317.933Radial†	6585.4	6607.9	5736.1 µg/L	5736.1 ppb	5736.1 ppb	11:53:48
1	Fe 238.204 Radial†	6904.4	7110.2	56171 µg/L	56171 ppb	56171 ppb	11:53:48
1	K 766.490 Radial†	8785.7	8898.6	6125.1 µg/L	6125.1 ppb	6125.1 ppb	11:53:27
1	Mg 279.077 IEC†	654.3	664.2	5821.9 µg/L	5821.9 ppb	5821.9 ppb	11:53:48
1	Na 589.592 Radial†	1250.2	776.2	241.51 µg/L	241.51 ppb	241.51 ppb	11:53:27
1	Sr 421.552†	7453.1	7664.7	75.636 µg/L	75.636 ppb	75.636 ppb	11:53:27
1	Sc 361.383	1968696.3	1968696.3	99.163 %			11:54:52
1	Y 371.029	1355536.8	1355536.8	99.351 %			11:54:52
1	Ag 328.068†	-1292.7	-742.6	-1.3437 µg/L	-1.3437 ppb	-1.3437 ppb	11:54:57
1	As 188.979†	5.3	3.6	9.5175 µg/L	9.5175 ppb	9.5175 ppb	11:55:18
1	B 249.677†	822.4	535.1	-7.1718 µg/L	-7.1718 ppb	-7.1718 ppb	11:54:57
1	Ba 233.527†	14429.9	14577.7	359.77 µg/L	359.77 ppb	359.77 ppb	11:54:57
1	Be 313.107†	4130.3	7765.6	3.7750 µg/L	3.7750 ppb	3.7750 ppb	11:54:57
1	Cd 226.502†	55.1	201.8	-1.0787 µg/L	-1.0787 ppb	-1.0787 ppb	11:55:18
1	Co 228.616†	650.6	665.0	25.173 µg/L	25.173 ppb	25.173 ppb	11:55:18
1	Cr 267.716†	2304.0	2372.0	49.434 µg/L	49.434 ppb	49.434 ppb	11:55:18
1	Cu 324.752†	6242.7	3851.2	33.243 µg/L	33.243 ppb	33.243 ppb	11:54:57
1	Mn 257.610†	480875.6	485197.2	1584.9 µg/L	1584.9 ppb	1584.9 ppb	11:54:52
1	Mo 202.031†	-2.2	2.7	2.4046 µg/L	2.4046 ppb	2.4046 ppb	11:55:18
1	Ni 231.604†	846.9	551.6	29.171 µg/L	29.171 ppb	29.171 ppb	11:55:18
1	P 214.914†	259.5	235.1	432.88 µg/L	432.88 ppb	432.88 ppb	11:55:18
1	Pb 220.353†	331.5	247.4	61.554 µg/L	61.554 ppb	61.554 ppb	11:55:18
1	S 181.975 Axial†	97.4	80.8	336.03 µg/L	336.03 ppb	336.03 ppb	11:55:18
1	Sb 206.836†	26.1	2.6	1.3516 µg/L	1.3516 ppb	1.3516 ppb	11:55:18
1	Se 196.026†	-5.2	-23.6	112.89 µg/L	112.89 ppb	112.89 ppb	11:55:18
1	SiO2†	153461.2	153464.9	31345 µg/L	31345 ppb	31345 ppb	11:54:57
1	Si 251.611†	188604.3	189900.3	14841 µg/L	14841 ppb	14841 ppb	11:54:52
1	Sn 189.927†	-28.6	-29.2	-17.944 µg/L	-17.944 ppb	-17.944 ppb	11:55:18
1	Ti 334.940†	1184087.1	1193981.3	2756.7 µg/L	2756.7 ppb	2756.7 ppb	11:54:52
1	Tl 190.801†	-49.8	-26.5	5.3438 µg/L	5.3438 ppb	5.3438 ppb	11:55:18
1	U 409.014†	-138.1	-50.2	-12.438 µg/L	-12.438 ppb	-12.438 ppb	11:54:57
1	V 292.402†	11153.3	11293.1	120.87 µg/L	120.87 ppb	120.87 ppb	11:54:57
1	Zn 213.857†	5629.9	5213.3	119.73 µg/L	119.73 ppb	119.73 ppb	11:55:18
2	Sc RADIAL	56113.3	56113.3	98.0 %			11:53:53
2	Al 396.153Radial†	44908.8	45862.5	31947 µg/L	31947 ppb	31947 ppb	11:53:53
2	Ca 317.933Radial†	6622.8	6573.0	5705.8 µg/L	5705.8 ppb	5705.8 ppb	11:54:14
2	Fe 238.204 Radial†	6930.4	7060.2	55776 µg/L	55776 ppb	55776 ppb	11:54:14
2	K 766.490 Radial†	8944.3	8963.0	6169.4 µg/L	6169.4 ppb	6169.4 ppb	11:53:53
2	Mg 279.077 IEC†	661.9	664.7	5826.8 µg/L	5826.8 ppb	5826.8 ppb	11:54:14
2	Na 589.592 Radial†	1207.5	718.7	223.62 µg/L	223.62 ppb	223.62 ppb	11:53:53
2	Sr 421.552†	7591.4	7723.1	76.212 µg/L	76.212 ppb	76.212 ppb	11:53:53
2	Sc 361.383	1977289.3	1977289.3	99.596 %			11:55:25
2	Y 371.029	1361019.9	1361019.9	99.752 %			11:55:25
2	Ag 328.068†	-1315.6	-759.9	-1.5146 µg/L	-1.5146 ppb	-1.5146 ppb	11:55:30
2	As 188.979†	0.6	-1.3	0.6030 µg/L	0.6030 ppb	0.6030 ppb	11:55:51
2	B 249.677†	791.9	500.9	-8.3788 µg/L	-8.3788 ppb	-8.3788 ppb	11:55:30
2	Ba 233.527†	14190.4	14274.0	352.28 µg/L	352.28 ppb	352.28 ppb	11:55:30
2	Be 313.107†	3948.4	7564.8	3.6477 µg/L	3.6477 ppb	3.6477 ppb	11:55:30
2	Cd 226.502†	57.2	203.6	-0.9886 µg/L	-0.9886 ppb	-0.9886 ppb	11:55:51
2	Co 228.616†	637.0	648.4	24.390 µg/L	24.390 ppb	24.390 ppb	11:55:51
2	Cr 267.716†	2250.1	2307.8	48.096 µg/L	48.096 ppb	48.096 ppb	11:55:51
2	Cu 324.752†	6228.1	3809.1	32.910 µg/L	32.910 ppb	32.910 ppb	11:55:30
2	Mn 257.610†	483699.5	485925.1	1587.2 µg/L	1587.2 ppb	1587.2 ppb	11:55:25
2	Mo 202.031†	-7.3	-2.5	1.8646 µg/L	1.8646 ppb	1.8646 ppb	11:55:51
2	Ni 231.604†	827.3	528.1	27.958 µg/L	27.958 ppb	27.958 ppb	11:55:51
2	P 214.914†	251.9	226.3	415.61 µg/L	415.61 ppb	415.61 ppb	11:55:51
2	Pb 220.353†	333.4	247.8	61.684 µg/L	61.684 ppb	61.684 ppb	11:55:51

2	S 181.975 Axial†	93.3	76.2	316.99 µg/L	316.99 ppb	11:55:51
2	Sb 206.836†	31.7	8.1	6.4957 µg/L	6.4957 ppb	11:55:51
2	Se 196.026†	-16.5	-34.9	95.497 µg/L	95.497 ppb	11:55:51
2	SiO2†	151189.0	150510.9	30741 µg/L	30741 ppb	11:55:30
2	Si 251.611†	189869.6	190344.2	14875 µg/L	14875 ppb	11:55:25
2	Sn 189.927†	-27.0	-27.4	-17.156 µg/L	-17.156 ppb	11:55:51
2	Ti 334.940†	1192178.7	1196916.4	2763.5 µg/L	2763.5 ppb	11:55:25
2	Tl 190.801†	-49.9	-26.4	5.5211 µg/L	5.5211 ppb	11:55:51
2	U 409.014†	-140.7	-52.1	-12.548 µg/L	-12.548 ppb	11:55:30
2	V 292.402†	10983.0	11073.2	118.59 µg/L	118.59 ppb	11:55:30
2	Zn 213.857†	5551.8	5110.2	117.33 µg/L	117.33 ppb	11:55:51
3	Sc RADIAL	56322.0	56322.0	98.3 %		11:54:19
3	Al 396.153Radial†	44376.1	45150.9	31452 µg/L	31452 ppb	11:54:19
3	Ca 317.933Radial†	6579.3	6503.7	5645.7 µg/L	5645.7 ppb	11:54:39
3	Fe 238.204 Radial†	6890.7	6993.6	55249 µg/L	55249 ppb	11:54:39
3	K 766.490 Radial†	8872.3	8855.9	6095.6 µg/L	6095.6 ppb	11:54:19
3	Mg 279.077 IEC†	647.4	647.5	5674.8 µg/L	5674.8 ppb	11:54:39
3	Na 589.592 Radial†	1249.7	757.0	235.55 µg/L	235.55 ppb	11:54:19
3	Sr 421.552†	7475.4	7576.4	74.765 µg/L	74.765 ppb	11:54:19
3	Sc 361.383	1978077.8	1978077.8	99.636 %		11:55:58
3	Y 371.029	1360286.8	1360286.8	99.699 %		11:55:58
3	Ag 328.068†	-1269.8	-713.4	-1.2045 µg/L	-1.2045 ppb	11:56:03
3	As 188.979†	3.6	1.7	6.1064 µg/L	6.1064 ppb	11:56:24
3	B 249.677†	762.2	470.7	-9.3507 µg/L	-9.3507 ppb	11:56:03
3	Ba 233.527†	14087.4	14164.9	349.59 µg/L	349.59 ppb	11:56:03
3	Be 313.107†	3738.6	7352.6	3.5447 µg/L	3.5447 ppb	11:56:03
3	Cd 226.502†	42.2	188.6	-1.3204 µg/L	-1.3204 ppb	11:56:24
3	Co 228.616†	600.4	611.5	22.830 µg/L	22.830 ppb	11:56:24
3	Cr 267.716†	2139.8	2196.2	45.772 µg/L	45.772 ppb	11:56:24
3	Cu 324.752†	6210.8	3789.3	32.706 µg/L	32.706 ppb	11:56:03
3	Mn 257.610†	471275.1	473261.7	1545.9 µg/L	1545.9 ppb	11:55:58
3	Mo 202.031†	-4.3	0.5	2.1539 µg/L	2.1539 ppb	11:56:24
3	Ni 231.604†	794.9	495.3	26.256 µg/L	26.256 ppb	11:56:24
3	P 214.914†	244.2	218.4	400.26 µg/L	400.26 ppb	11:56:24
3	Pb 220.353†	328.5	242.8	60.429 µg/L	60.429 ppb	11:56:24
3	S 181.975 Axial†	88.7	71.6	297.88 µg/L	297.88 ppb	11:56:24
3	Sb 206.836†	34.2	10.6	8.8520 µg/L	8.8520 ppb	11:56:24
3	Se 196.026†	-6.5	-24.9	108.59 µg/L	108.59 ppb	11:56:24
3	SiO2†	150660.3	149919.9	30621 µg/L	30621 ppb	11:56:03
3	Si 251.611†	185990.3	186374.8	14565 µg/L	14565 ppb	11:55:58
3	Sn 189.927†	-19.3	-19.7	-13.772 µg/L	-13.772 ppb	11:56:24
3	Ti 334.940†	1159967.1	1164110.0	2687.7 µg/L	2687.7 ppb	11:55:58
3	Tl 190.801†	-42.8	-19.2	14.088 µg/L	14.088 ppb	11:56:24
3	U 409.014†	-236.9	-148.7	-20.709 µg/L	-20.709 ppb	11:56:03
3	V 292.402†	10848.1	10933.4	117.11 µg/L	117.11 ppb	11:56:03
3	Zn 213.857†	5342.6	4898.1	112.37 µg/L	112.37 ppb	11:56:24

## Mean Data: 245688006|948032|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1974687.8	99.465 %		0.2621				0.26%
Sc RADIAL	55981.6	97.7 %		0.74				0.75%
Y 371.029	1358947.8	99.601 %		0.2182				0.22%
Ag 328.068†	-738.6	-1.3542 µg/L		0.15530	-1.3542 ppb		0.15530	11.47%
Al 396.153Radial†	45537.5	31721 µg/L		250.6	31721 ppb		250.6	0.79%
As 188.979†	1.3	5.4090 µg/L		4.49800	5.4090 ppb		4.49800	83.16%
B 249.677†	502.2	-8.3004 µg/L		1.09154	-8.3004 ppb		1.09154	13.15%
Ba 233.527†	14338.9	353.88 µg/L		5.279	353.88 ppb		5.279	1.49%
Be 313.107†	7561.0	3.6558 µg/L		0.11537	3.6558 ppb		0.11537	3.16%
Ca 317.933Radial†	6561.5	5695.8 µg/L		46.03	5695.8 ppb		46.03	0.81%
Cd 226.502†	198.0	-1.1292 µg/L		0.17158	-1.1292 ppb		0.17158	15.19%
Co 228.616†	641.6	24.131 µg/L		1.1927	24.131 ppb		1.1927	4.94%
Cr 267.716†	2292.0	47.767 µg/L		1.8530	47.767 ppb		1.8530	3.88%
Cu 324.752†	3816.6	32.953 µg/L		0.2710	32.953 ppb		0.2710	0.82%
Fe 238.204 Radial†	7054.7	55732 µg/L		462.4	55732 ppb		462.4	0.83%
K 766.490 Radial†	8905.8	6130.0 µg/L		37.10	6130.0 ppb		37.10	0.61%
Mg 279.077 IEC†	658.8	5774.5 µg/L		86.34	5774.5 ppb		86.34	1.50%
Mn 257.610†	481461.3	1572.7 µg/L		23.17	1572.7 ppb		23.17	1.47%
Mo 202.031†	0.2	2.1410 µg/L		0.27026	2.1410 ppb		0.27026	12.62%
Na 589.592 Radial†	750.6	233.56 µg/L		9.110	233.56 ppb		9.110	3.90%



Ni 231.604†	525.0	27.795 µg/L	1.4643	27.795 ppb	1.4643	5.27%
P 214.914†	226.6	416.25 µg/L	16.321	416.25 ppb	16.321	3.92%
Pb 220.353†	246.0	61.222 µg/L	0.6904	61.222 ppb	0.6904	1.13%
S 181.975 Axial†	76.2	316.97 µg/L	19.075	316.97 ppb	19.075	6.02%
Sb 206.836†	7.1	5.5664 µg/L	3.83560	5.5664 ppb	3.83560	68.91%
Se 196.026†	-27.8	105.66 µg/L	9.059	105.66 ppb	9.059	8.57%
SiO2†	151298.6	30902 µg/L	387.9	30902 ppb	387.9	1.26%
Si 251.611†	188873.1	14761 µg/L	170.0	14761 ppb	170.0	1.15%
Sn 189.927†	-25.4	-16.291 µg/L	2.2168	-16.291 ppb	2.2168	13.61%
Sr 421.552†	7654.7	75.537 µg/L	0.7286	75.537 ppb	0.7286	0.96%
Ti 334.940†	1185002.6	2736.0 µg/L	41.91	2736.0 ppb	41.91	1.53%
Tl 190.801†	-24.0	8.3175 µg/L	4.99794	8.3175 ppb	4.99794	60.09%
U 409.014†	-83.7	-15.232 µg/L	4.7437	-15.232 ppb	4.7437	31.14%
V 292.402†	11099.9	118.86 µg/L	1.895	118.86 ppb	1.895	1.59%
Zn 213.857†	5073.9	116.48 µg/L	3.756	116.48 ppb	3.756	3.22%

Sequence No.: 35  
 Sample ID: 245688007|948032|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 413  
 Date Collected: 2/12/2010 11:56:33  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: 245688007|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57146.1	57146.1	99.8 %		11:57:06
1	Al 396.153Radial†	75923.6	76118.7	53024 µg/L	53024 ppb	11:57:06
1	Ca 317.933Radial†	9921.6	9757.1	8469.8 µg/L	8469.8 ppb	11:57:26
1	Fe 238.204 Radial†	8514.8	8520.2	67310 µg/L	67310 ppb	11:57:26
1	K 766.490 Radial†	13638.1	13502.3	9293.9 µg/L	9293.9 ppb	11:57:06
1	Mg 279.077 IEC†	1134.5	1126.2	9901.2 µg/L	9901.2 ppb	11:57:26
1	Na 589.592 Radial†	2711.0	2203.3	685.59 µg/L	685.59 ppb	11:57:06
1	Sr 421.552†	14080.0	14086.2	139.00 µg/L	139.00 ppb	11:57:06
1	Sc 361.383	1966667.9	1966667.9	99.061 %		11:58:30
1	Y 371.029	1382856.1	1382856.1	101.35 %		11:58:30
1	Ag 328.068†	-1488.7	-941.7	-2.0567 µg/L	-2.0567 ppb	11:58:36
1	As 188.979†	8.4	6.6	15.671 µg/L	15.671 ppb	11:58:56
1	B 249.677†	926.7	641.2	-8.4120 µg/L	-8.4120 ppb	11:58:36
1	Ba 233.527†	26954.0	27235.5	672.01 µg/L	672.01 ppb	11:58:36
1	Be 313.107†	8674.4	12357.0	6.5086 µg/L	6.5086 ppb	11:58:36
1	Cd 226.502†	107.4	254.6	-0.8976 µg/L	-0.8976 ppb	11:58:56
1	Co 228.616†	1147.3	1167.1	47.871 µg/L	47.871 ppb	11:58:56
1	Cr 267.716†	8147.0	8272.7	172.24 µg/L	172.24 ppb	11:58:36
1	Cu 324.752†	15668.8	13373.1	97.678 µg/L	97.678 ppb	11:58:36
1	Mn 257.610†	732345.2	739550.0	2413.2 µg/L	2413.2 ppb	11:58:30
1	Mo 202.031†	2.6	7.5	3.3125 µg/L	3.3125 ppb	11:58:56
1	Ni 231.604†	2136.8	1854.5	96.562 µg/L	96.562 ppb	11:58:56
1	P 214.914†	279.8	255.8	465.03 µg/L	465.03 ppb	11:58:56
1	Pb 220.353†	499.5	417.4	104.82 µg/L	104.82 ppb	11:58:56
1	S 181.975 Axial†	131.8	115.6	480.66 µg/L	480.66 ppb	11:58:56
1	Sb 206.836†	31.2	7.8	4.5547 µg/L	4.5547 ppb	11:58:56
1	Se 196.026†	-21.6	-40.1	115.14 µg/L	115.14 ppb	11:58:56
1	SiO2†	183977.9	184430.5	37669 µg/L	37669 ppb	11:58:36
1	Si 251.611†	226156.3	228004.4	17819 µg/L	17819 ppb	11:58:30
1	Sn 189.927†	-29.2	-29.8	-18.944 µg/L	-18.944 ppb	11:58:56
1	Ti 334.940†	1317489.8	1329879.8	3070.2 µg/L	3070.2 ppb	11:58:30
1	Tl 190.801†	-51.7	-28.5	11.866 µg/L	11.866 ppb	11:58:56
1	U 409.014†	-563.0	-479.2	-50.758 µg/L	-50.758 ppb	11:58:30
1	V 292.402†	12582.4	12747.4	137.13 µg/L	137.13 ppb	11:58:36
1	Zn 213.857†	6808.8	6409.3	146.77 µg/L	146.77 ppb	11:58:36
2	Sc RADIAL	56470.1	56470.1	98.6 %		11:57:32
2	Al 396.153Radial†	75727.4	76830.5	53520 µg/L	53520 ppb	11:57:32
2	Ca 317.933Radial†	9923.9	9878.4	8575.1 µg/L	8575.1 ppb	11:57:52
2	Fe 238.204 Radial†	8532.9	8640.8	68263 µg/L	68263 ppb	11:57:52
2	K 766.490 Radial†	13638.5	13666.3	9406.8 µg/L	9406.8 ppb	11:57:32
2	Mg 279.077 IEC†	1134.8	1140.1	10023 µg/L	10023 ppb	11:57:52
2	Na 589.592 Radial†	2718.6	2243.6	698.11 µg/L	698.11 ppb	11:57:32
2	Sr 421.552†	13988.1	14162.0	139.75 µg/L	139.75 ppb	11:57:32
2	Sc 361.383	1954642.8	1954642.8	98.456 %		11:59:04
2	Y 371.029	1372677.0	1372677.0	100.61 %		11:59:04
2	Ag 328.068†	-1545.2	-1008.4	-2.4928 µg/L	-2.4928 ppb	11:59:09
2	As 188.979†	12.9	11.3	24.223 µg/L	24.223 ppb	11:59:30
2	B 249.677†	873.5	592.9	-10.898 µg/L	-10.898 ppb	11:59:09
2	Ba 233.527†	27121.9	27573.4	680.35 µg/L	680.35 ppb	11:59:09
2	Be 313.107†	8645.2	12381.2	6.5284 µg/L	6.5284 ppb	11:59:09
2	Cd 226.502†	97.0	244.7	-1.2643 µg/L	-1.2643 ppb	11:59:30
2	Co 228.616†	1140.7	1167.4	47.914 µg/L	47.914 ppb	11:59:30
2	Cr 267.716†	8200.8	8378.0	174.43 µg/L	174.43 ppb	11:59:09
2	Cu 324.752†	15635.2	13436.3	98.228 µg/L	98.228 ppb	11:59:09
2	Mn 257.610†	722879.0	734483.4	2396.9 µg/L	2396.9 ppb	11:59:04
2	Mo 202.031†	0.7	5.6	3.1546 µg/L	3.1546 ppb	11:59:30
2	Ni 231.604†	2121.2	1852.0	96.444 µg/L	96.444 ppb	11:59:30
2	P 214.914†	273.6	251.2	455.19 µg/L	455.19 ppb	11:59:30
2	Pb 220.353†	490.0	410.8	103.16 µg/L	103.16 ppb	11:59:30

2	S 181.975 Axial†	126.4	110.9	461.24 µg/L	461.24 ppb	11:59:30
2	Sb 206.836†	35.6	12.5	8.8697 µg/L	8.8697 ppb	11:59:30
2	Se 196.026†	-17.9	-36.5	122.75 µg/L	122.75 ppb	11:59:30
2	SiO2†	184890.1	186499.5	38092 µg/L	38092 ppb	11:59:09
2	Si 251.611†	224033.0	227252.3	17760 µg/L	17760 ppb	11:59:04
2	Sn 189.927†	-24.2	-24.9	-16.899 µg/L	-16.899 ppb	11:59:30
2	Ti 334.940†	1304048.6	1324409.8	3057.6 µg/L	3057.6 ppb	11:59:04
2	Tl 190.801†	-54.5	-31.6	7.7328 µg/L	7.7328 ppb	11:59:30
2	U 409.014†	-473.9	-392.2	-43.474 µg/L	-43.474 ppb	11:59:04
2	V 292.402†	12652.1	12896.3	138.76 µg/L	138.76 ppb	11:59:09
2	Zn 213.857†	6820.1	6463.0	147.98 µg/L	147.98 ppb	11:59:09
3	Sc RADIAL	56527.8	56527.8	98.7 %		11:57:57
3	Al 396.153Radial†	75867.9	76894.5	53564 µg/L	53564 ppb	11:57:57
3	Ca 317.933Radial†	9844.4	9787.6	8496.3 µg/L	8496.3 ppb	11:58:18
3	Fe 238.204 Radial†	8479.7	8578.0	67767 µg/L	67767 ppb	11:58:18
3	K 766.490 Radial†	13672.7	13686.9	9420.9 µg/L	9420.9 ppb	11:57:57
3	Mg 279.077 IEC†	1131.4	1135.5	9982.7 µg/L	9982.7 ppb	11:58:18
3	Na 589.592 Radial†	2725.0	2247.2	699.24 µg/L	699.24 ppb	11:57:57
3	Sr 421.552†	14038.1	14198.2	140.11 µg/L	140.11 ppb	11:57:57
3	Sc 361.383	1961331.3	1961331.3	98.792 %		11:59:37
3	Y 371.029	1377631.0	1377631.0	100.97 %		11:59:37
3	Ag 328.068†	-1482.6	-939.7	-2.0430 µg/L	-2.0430 ppb	11:59:43
3	As 188.979†	9.6	7.9	18.071 µg/L	18.071 ppb	12:00:03
3	B 249.677†	871.7	588.1	-10.853 µg/L	-10.853 ppb	11:59:43
3	Ba 233.527†	26062.8	26407.4	651.58 µg/L	651.58 ppb	11:59:43
3	Be 313.107†	8126.3	11826.0	6.2058 µg/L	6.2058 ppb	11:59:43
3	Cd 226.502†	83.1	230.3	-1.5865 µg/L	-1.5865 ppb	12:00:03
3	Co 228.616†	1067.9	1089.8	44.426 µg/L	44.426 ppb	12:00:03
3	Cr 267.716†	7809.7	7953.7	165.60 µg/L	165.60 ppb	11:59:43
3	Cu 324.752†	15091.0	12831.2	94.163 µg/L	94.163 ppb	11:59:43
3	Mn 257.610†	713108.6	722089.8	2356.5 µg/L	2356.5 ppb	11:59:37
3	Mo 202.031†	0.9	5.7	3.1528 µg/L	3.1528 ppb	12:00:03
3	Ni 231.604†	2024.6	1746.9	91.016 µg/L	91.016 ppb	12:00:03
3	P 214.914†	254.8	231.3	415.93 µg/L	415.93 ppb	12:00:03
3	Pb 220.353†	483.0	402.0	101.00 µg/L	101.00 ppb	12:00:03
3	S 181.975 Axial†	119.1	103.1	428.86 µg/L	428.86 ppb	12:00:03
3	Sb 206.836†	34.7	11.5	8.0371 µg/L	8.0371 ppb	12:00:03
3	Se 196.026†	-16.9	-35.4	123.06 µg/L	123.06 ppb	12:00:03
3	SiO2†	178039.6	178924.9	36545 µg/L	36545 ppb	11:59:43
3	Si 251.611†	221658.6	224072.9	17511 µg/L	17511 ppb	11:59:37
3	Sn 189.927†	-22.4	-23.0	-16.049 µg/L	-16.049 ppb	12:00:03
3	Ti 334.940†	1283346.9	1298938.3	2998.8 µg/L	2998.8 ppb	11:59:37
3	Tl 190.801†	-48.7	-25.6	14.944 µg/L	14.944 ppb	12:00:03
3	U 409.014†	-578.7	-496.6	-52.309 µg/L	-52.309 ppb	11:59:37
3	V 292.402†	12096.5	12290.1	132.54 µg/L	132.54 ppb	11:59:43
3	Zn 213.857†	6623.3	6240.2	142.79 µg/L	142.79 ppb	11:59:43

Mean Data: 245688007|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1960880.7	98.770 %	0.3035			0.31%
Sc RADIAL	56714.7	99.0 %	0.65			0.66%
Y 371.029	1377721.4	100.98 %	0.373			0.37%
Ag 328.068†	-963.3	-2.1975 µg/L	0.25587	-2.1975 ppb	0.25587	11.64%
Al 396.153Radial†	76614.6	53369 µg/L	300.0	53369 ppb	300.0	0.56%
As 188.979†	8.6	19.322 µg/L	4.4109	19.322 ppb	4.4109	22.83%
B 249.677†	607.4	-10.054 µg/L	1.4225	-10.054 ppb	1.4225	14.15%
Ba 233.527†	27072.1	667.98 µg/L	14.803	667.98 ppb	14.803	2.22%
Be 313.107†	12188.1	6.4143 µg/L	0.18078	6.4143 ppb	0.18078	2.82%
Ca 317.933Radial†	9807.7	8513.7 µg/L	54.78	8513.7 ppb	54.78	0.64%
Cd 226.502†	243.2	-1.2495 µg/L	0.34471	-1.2495 ppb	0.34471	27.59%
Co 228.616†	1141.4	46.737 µg/L	2.0015	46.737 ppb	2.0015	4.28%
Cr 267.716†	8201.5	170.75 µg/L	4.600	170.75 ppb	4.600	2.69%
Cu 324.752†	13213.5	96.690 µg/L	2.2053	96.690 ppb	2.2053	2.28%
Fe 238.204 Radial†	8579.7	67780 µg/L	476.5	67780 ppb	476.5	0.70%
K 766.490 Radial†	13618.5	9373.8 µg/L	69.63	9373.8 ppb	69.63	0.74%
Mg 279.077 IEC†	1133.9	9969.1 µg/L	62.24	9969.1 ppb	62.24	0.62%
Mn 257.610†	732041.1	2388.9 µg/L	29.19	2388.9 ppb	29.19	1.22%
Mo 202.031†	6.3	3.2066 µg/L	0.09170	3.2066 ppb	0.09170	2.86%
Na 589.592 Radial†	2231.3	694.32 µg/L	7.579	694.32 ppb	7.579	1.09%

Ni 231.604†	1817.8	94.674 µg/L	3.1688	94.674 ppb	3.1688	3.35%
P 214.914†	246.1	445.39 µg/L	25.976	445.39 ppb	25.976	5.83%
Pb 220.353†	410.1	102.99 µg/L	1.917	102.99 ppb	1.917	1.86%
S 181.975 Axial†	109.9	456.92 µg/L	26.170	456.92 ppb	26.170	5.73%
Sb 206.836†	10.6	7.1538 µg/L	2.28907	7.1538 ppb	2.28907	32.00%
Se 196.026†	-37.4	120.31 µg/L	4.484	120.31 ppb	4.484	3.73%
SiO2†	183285.0	37435 µg/L	799.6	37435 ppb	799.6	2.14%
Si 251.611†	226443.2	17697 µg/L	163.1	17697 ppb	163.1	0.92%
Sn 189.927†	-25.9	-17.297 µg/L	1.4881	-17.297 ppb	1.4881	8.60%
Sr 421.552†	14148.8	139.62 µg/L	0.564	139.62 ppb	0.564	0.40%
Ti 334.940†	1317742.6	3042.2 µg/L	38.13	3042.2 ppb	38.13	1.25%
Tl 190.801†	-28.5	11.514 µg/L	3.6184	11.514 ppb	3.6184	31.43%
U 409.014†	-456.0	-48.847 µg/L	4.7176	-48.847 ppb	4.7176	9.66%
V 292.402†	12644.6	136.14 µg/L	3.223	136.14 ppb	3.223	2.37%
Zn 213.857†	6370.8	145.85 µg/L	2.718	145.85 ppb	2.718	1.86%

Sequence No.: 36

Sample ID: 245688008|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 414

Date Collected: 2/12/2010 12:00:13

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688008|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55736.2	55736.2	97.3 %		12:00:46
1	Al 396.153Radial†	18302.1	18831.5	13118 µg/L	13118 ppb	12:00:46
1	Ca 317.933Radial†	8584.4	8634.5	7495.3 µg/L	7495.3 ppb	12:00:46
1	Fe 238.204 Radial†	9158.9	9398.0	74244 µg/L	74244 ppb	12:00:46
1	K 766.490 Radial†	5061.9	5035.1	3465.8 µg/L	3465.8 ppb	12:00:46
1	Mg 279.077 IEC†	364.8	364.0	3143.8 µg/L	3143.8 ppb	12:01:06
1	Na 589.592 Radial†	4604.5	4217.8	1312.4 µg/L	1312.4 ppb	12:00:46
1	Sr 421.552†	3941.5	4024.9	39.718 µg/L	39.718 ppb	12:00:46
1	Sc 361.383	1964956.4	1964956.4	98.975 %		12:02:10
1	Y 371.029	1455759.7	1455759.7	106.70 %		12:02:10
1	Ag 328.068†	-1509.6	-964.1	-2.4776 µg/L	-2.4776 ppb	12:02:16
1	As 188.979†	4.7	3.0	9.3666 µg/L	9.3666 ppb	12:02:36
1	B 249.677†	599.7	311.7	-25.675 µg/L	-25.675 ppb	12:02:16
1	Ba 233.527†	10126.5	10257.4	253.05 µg/L	253.05 ppb	12:02:16
1	Be 313.107†	5465.4	9122.4	4.9410 µg/L	4.9410 ppb	12:02:16
1	Cd 226.502†	97.3	244.5	-1.9479 µg/L	-1.9479 ppb	12:02:16
1	Co 228.616†	272.1	283.8	9.2183 µg/L	9.2183 ppb	12:02:36
1	Cr 267.716†	6422.5	6537.6	136.06 µg/L	136.06 ppb	12:02:16
1	Cu 324.752†	7074.8	4703.9	41.387 µg/L	41.387 ppb	12:02:16
1	Mn 257.610†	683901.5	691248.6	2257.4 µg/L	2257.4 ppb	12:02:10
1	Mo 202.031†	60.0	65.4	9.4253 µg/L	9.4253 ppb	12:02:36
1	Ni 231.604†	2062.4	1781.2	92.917 µg/L	92.917 ppb	12:02:16
1	P 214.914†	549.7	528.7	1002.4 µg/L	1002.4 ppb	12:02:36
1	Pb 220.353†	325.1	241.5	58.576 µg/L	58.576 ppb	12:02:36
1	S 181.975 Axial†	21.2	4.0	16.514 µg/L	16.514 ppb	12:02:36
1	Sb 206.836†	26.6	3.2	0.9196 µg/L	0.9196 ppb	12:02:36
1	Se 196.026†	-29.3	-48.0	129.09 µg/L	129.09 ppb	12:02:36
1	SiO2†	96741.1	96452.0	19700 µg/L	19700 ppb	12:02:16
1	Si 251.611†	116976.5	117892.8	9213.4 µg/L	9213.4 ppb	12:02:16
1	Sn 189.927†	-2.9	-3.2	-8.9596 µg/L	-8.9596 ppb	12:02:36
1	Ti 334.940†	818619.6	827001.8	1909.5 µg/L	1909.5 ppb	12:02:10
1	Tl 190.801†	-47.0	-23.7	5.0892 µg/L	5.0892 ppb	12:02:36
1	U 409.014†	-2209.7	-2143.4	-193.66 µg/L	-193.66 ppb	12:02:10
1	V 292.402†	2365.4	2435.5	33.531 µg/L	33.531 ppb	12:02:16
1	Zn 213.857†	19512.5	19250.5	449.66 µg/L	449.66 ppb	12:02:16
2	Sc RADIAL	55787.8	55787.8	97.4 %		12:01:12
2	Al 396.153Radial†	18529.1	19047.2	13268 µg/L	13268 ppb	12:01:12
2	Ca 317.933Radial†	8669.2	8713.3	7563.7 µg/L	7563.7 ppb	12:01:12
2	Fe 238.204 Radial†	9225.5	9457.6	74715 µg/L	74715 ppb	12:01:12
2	K 766.490 Radial†	5065.8	5034.3	3465.2 µg/L	3465.2 ppb	12:01:12
2	Mg 279.077 IEC†	361.2	360.0	3107.7 µg/L	3107.7 ppb	12:01:32
2	Na 589.592 Radial†	4666.0	4276.5	1330.7 µg/L	1330.7 ppb	12:01:12
2	Sr 421.552†	4010.0	4091.4	40.374 µg/L	40.374 ppb	12:01:12
2	Sc 361.383	1942279.0	1942279.0	97.833 %		12:02:44
2	Y 371.029	1438600.9	1438600.9	105.44 %		12:02:44
2	Ag 328.068†	-1562.0	-1035.6	-2.9843 µg/L	-2.9843 ppb	12:02:49
2	As 188.979†	6.5	4.8	12.824 µg/L	12.824 ppb	12:03:10
2	B 249.677†	621.2	340.7	-24.720 µg/L	-24.720 ppb	12:02:49
2	Ba 233.527†	10162.9	10414.0	256.91 µg/L	256.91 ppb	12:02:49
2	Be 313.107†	5393.1	9113.0	4.9313 µg/L	4.9313 ppb	12:02:49
2	Cd 226.502†	109.9	258.6	-1.6338 µg/L	-1.6338 ppb	12:02:49
2	Co 228.616†	272.3	287.2	9.3575 µg/L	9.3575 ppb	12:03:10
2	Cr 267.716†	6445.6	6636.9	138.13 µg/L	138.13 ppb	12:02:49
2	Cu 324.752†	7219.6	4935.4	42.981 µg/L	42.981 ppb	12:02:49
2	Mn 257.610†	678595.9	693893.1	2266.0 µg/L	2266.0 ppb	12:02:44
2	Mo 202.031†	58.5	64.7	9.3648 µg/L	9.3648 ppb	12:03:10
2	Ni 231.604†	2083.0	1826.6	95.266 µg/L	95.266 ppb	12:02:49
2	P 214.914†	535.6	520.9	986.01 µg/L	986.01 ppb	12:03:10
2	Pb 220.353†	321.0	241.2	58.485 µg/L	58.485 ppb	12:03:10

2	S 181.975 Axial†	20.4	3.4	14.157 µg/L	14.157 ppb	12:03:10
2	Sb 206.836†	33.1	10.2	7.2874 µg/L	7.2874 ppb	12:03:10
2	Se 196.026†	-34.2	-53.3	122.70 µg/L	122.70 ppb	12:03:10
2	SiO2†	97001.2	97859.0	19987 µg/L	19987 ppb	12:02:49
2	Si 251.611†	117358.7	119663.4	9351.7 µg/L	9351.7 ppb	12:02:49
2	Sn 189.927†	-5.2	-5.7	-10.081 µg/L	-10.081 ppb	12:03:10
2	Ti 334.940†	813481.2	831406.4	1919.7 µg/L	1919.7 ppb	12:02:44
2	Tl 190.801†	-40.7	-17.8	13.033 µg/L	13.033 ppb	12:03:10
2	U 409.014†	-2249.1	-2209.8	-199.39 µg/L	-199.39 ppb	12:02:44
2	V 292.402†	2421.7	2521.1	34.449 µg/L	34.449 ppb	12:02:49
2	Zn 213.857†	19627.4	19598.2	457.82 µg/L	457.82 ppb	12:02:49
3	Sc RADIAL	56009.3	56009.3	97.8 %		12:01:37
3	Al 396.153Radial†	18355.0	18793.9	13092 µg/L	13092 ppb	12:01:37
3	Ca 317.933Radial†	8558.2	8564.7	7434.7 µg/L	7434.7 ppb	12:01:37
3	Fe 238.204 Radial†	9145.9	9338.9	73777 µg/L	73777 ppb	12:01:37
3	K 766.490 Radial†	5068.7	5016.7	3453.1 µg/L	3453.1 ppb	12:01:37
3	Mg 279.077 IEC†	359.4	356.7	3079.7 µg/L	3079.7 ppb	12:01:58
3	Na 589.592 Radial†	4625.7	4216.4	1312.0 µg/L	1312.0 ppb	12:01:37
3	Sr 421.552†	3952.5	4016.4	39.634 µg/L	39.634 ppb	12:01:37
3	Sc 361.383	1934599.3	1934599.3	97.446 %		12:03:17
3	Y 371.029	1433659.3	1433659.3	105.08 %		12:03:17
3	Ag 328.068†	-1457.5	-934.6	-2.2880 µg/L	-2.2880 ppb	12:03:23
3	As 188.979†	4.7	3.0	9.3106 µg/L	9.3106 ppb	12:03:43
3	B 249.677†	596.7	318.1	-25.173 µg/L	-25.173 ppb	12:03:23
3	Ba 233.527†	9778.3	10060.6	248.20 µg/L	248.20 ppb	12:03:23
3	Be 313.107†	5085.2	8818.9	4.7596 µg/L	4.7596 ppb	12:03:23
3	Cd 226.502†	98.3	247.1	-1.8295 µg/L	-1.8295 ppb	12:03:23
3	Co 228.616†	257.3	272.9	8.7545 µg/L	8.7545 ppb	12:03:43
3	Cr 267.716†	6133.2	6342.5	132.00 µg/L	132.00 ppb	12:03:23
3	Cu 324.752†	6979.5	4718.3	41.417 µg/L	41.417 ppb	12:03:23
3	Mn 257.610†	668471.2	686256.5	2241.1 µg/L	2241.1 ppb	12:03:17
3	Mo 202.031†	64.3	70.8	9.9496 µg/L	9.9496 ppb	12:03:43
3	Ni 231.604†	1994.4	1744.2	91.001 µg/L	91.001 ppb	12:03:23
3	P 214.914†	513.8	500.6	946.29 µg/L	946.29 ppb	12:03:43
3	Pb 220.353†	311.5	232.8	56.405 µg/L	56.405 ppb	12:03:43
3	S 181.975 Axial†	24.5	7.7	32.005 µg/L	32.005 ppb	12:03:43
3	Sb 206.836†	20.7	-2.4	-4.2839 µg/L	-4.2839 ppb	12:03:43
3	Se 196.026†	-22.6	-41.5	137.19 µg/L	137.19 ppb	12:03:43
3	SiO2†	93741.8	94907.9	19385 µg/L	19385 ppb	12:03:23
3	Si 251.611†	113380.1	116056.7	9069.9 µg/L	9069.9 ppb	12:03:23
3	Sn 189.927†	-4.6	-5.1	-9.7311 µg/L	-9.7311 ppb	12:03:43
3	Ti 334.940†	798017.3	818838.0	1890.7 µg/L	1890.7 ppb	12:03:17
3	Tl 190.801†	-47.3	-24.8	3.3093 µg/L	3.3093 ppb	12:03:43
3	U 409.014†	-2253.7	-2223.6	-200.43 µg/L	-200.43 ppb	12:03:17
3	V 292.402†	2256.5	2361.3	32.713 µg/L	32.713 ppb	12:03:23
3	Zn 213.857†	18942.4	18974.8	443.19 µg/L	443.19 ppb	12:03:23

Mean Data: 245688008|948032|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1947278.2	98.085 %		0.7950				0.81%
Sc RADIAL	55844.4	97.5 %		0.25				0.26%
Y 371.029	1442673.3	105.74 %		0.850				0.80%
Ag 328.068†	-978.1	-2.5833 µg/L		0.36001	-2.5833 ppb		0.36001	13.94%
Al 396.153Radial†	18890.9	13159 µg/L		95.2	13159 ppb		95.2	0.72%
As 188.979†	3.6	10.500 µg/L		2.0123	10.500 ppb		2.0123	19.16%
B 249.677†	323.5	-25.189 µg/L		0.4778	-25.189 ppb		0.4778	1.90%
Ba 233.527†	10244.0	252.72 µg/L		4.369	252.72 ppb		4.369	1.73%
Be 313.107†	9018.1	4.8773 µg/L		0.10206	4.8773 ppb		0.10206	2.09%
Ca 317.933Radial†	8637.5	7497.9 µg/L		64.55	7497.9 ppb		64.55	0.86%
Cd 226.502†	250.1	-1.8038 µg/L		0.15863	-1.8038 ppb		0.15863	8.79%
Co 228.616†	281.3	9.1101 µg/L		0.31574	9.1101 ppb		0.31574	3.47%
Cr 267.716†	6505.7	135.40 µg/L		3.117	135.40 ppb		3.117	2.30%
Cu 324.752†	4785.9	41.928 µg/L		0.9118	41.928 ppb		0.9118	2.17%
Fe 238.204 Radial†	9398.2	74245 µg/L		469.2	74245 ppb		469.2	0.63%
K 766.490 Radial†	5028.7	3461.3 µg/L		7.19	3461.3 ppb		7.19	0.21%
Mg 279.077 IEC†	360.2	3110.4 µg/L		32.13	3110.4 ppb		32.13	1.03%
Mn 257.610†	690466.1	2254.8 µg/L		12.67	2254.8 ppb		12.67	0.56%
Mo 202.031†	67.0	9.5799 µg/L		0.32156	9.5799 ppb		0.32156	3.36%
Na 589.592 Radial†	4236.9	1318.4 µg/L		10.68	1318.4 ppb		10.68	0.81%

Ni 231.604†	1784.0	93.062 µg/L	2.1364	93.062 ppb	2.1364	2.30%
P 214.914†	516.7	978.23 µg/L	28.842	978.23 ppb	28.842	2.95%
Pb 220.353†	238.5	57.822 µg/L	1.2277	57.822 ppb	1.2277	2.12%
S 181.975 Axial†	5.0	20.892 µg/L	9.6957	20.892 ppb	9.6957	46.41%
Sb 206.836†	3.7	1.3077 µg/L	5.79542	1.3077 ppb	5.79542	443.17%
Se 196.026†	-47.6	129.66 µg/L	7.264	129.66 ppb	7.264	5.60%
SiO2†	96406.3	19691 µg/L	301.5	19691 ppb	301.5	1.53%
Si 251.611†	117871.0	9211.7 µg/L	140.94	9211.7 ppb	140.94	1.53%
Sn 189.927†	-4.6	-9.5905 µg/L	0.57364	-9.5905 ppb	0.57364	5.98%
Sr 421.552†	4044.2	39.909 µg/L	0.4055	39.909 ppb	0.4055	1.02%
Ti 334.940†	825748.7	1906.6 µg/L	14.73	1906.6 ppb	14.73	0.77%
Tl 190.801†	-22.1	7.1439 µg/L	5.17725	7.1439 ppb	5.17725	72.47%
U 409.014†	-2192.3	-197.83 µg/L	3.646	-197.83 ppb	3.646	1.84%
V 292.402†	2439.3	33.564 µg/L	0.8683	33.564 ppb	0.8683	2.59%
Zn 213.857†	19274.5	450.22 µg/L	7.331	450.22 ppb	7.331	1.63%

Sequence No.: 37

Sample ID: 245688009|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 415

Date Collected: 2/12/2010 12:03:52

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688009|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55785.9	55785.9	97.4 %		12:04:25
1	Al 396.153Radial†	127147.1	130564.5	90950 µg/L	90950 ppb	12:04:25
1	Ca 317.933Radial†	19957.4	20303.1	17624 µg/L	17624 ppb	12:04:45
1	Fe 238.204 Radial†	13398.6	13742.4	108570 µg/L	108570 ppb	12:04:45
1	K 766.490 Radial†	16932.1	17217.4	11851 µg/L	11851 ppb	12:04:25
1	Mg 279.077 IEC†	1633.8	1666.5	14642 µg/L	14642 ppb	12:04:45
1	Na 589.592 Radial†	2757.1	2316.9	720.94 µg/L	720.94 ppb	12:04:45
1	Sr 421.552†	15832.2	16229.3	160.15 µg/L	160.15 ppb	12:04:25
1	Sc 361.383	1934468.2	1934468.2	97.439 %		12:05:50
1	Y 371.029	1347583.9	1347583.9	98.768 %		12:05:50
1	Ag 328.068†	129.4	693.9	13.287 µg/L	13.287 ppb	12:05:56
1	As 188.979†	14.6	13.2	29.594 µg/L	29.594 ppb	12:06:17
1	B 249.677†	1450.5	1194.4	-7.0843 µg/L	-7.0843 ppb	12:05:56
1	Ba 233.527†	31950.2	32815.9	809.75 µg/L	809.75 ppb	12:05:56
1	Be 313.107†	45465.8	50261.0	30.185 µg/L	30.185 ppb	12:05:56
1	Cd 226.502†	248.3	401.0	-1.7344 µg/L	-1.7344 ppb	12:06:17
1	Co 228.616†	935.6	969.1	39.337 µg/L	39.337 ppb	12:06:17
1	Cr 267.716†	9529.4	9828.4	204.64 µg/L	204.64 ppb	12:05:56
1	Cu 324.752†	253642.8	257864.3	1718.2 µg/L	1718.2 ppb	12:05:50
1	Mn 257.610†	534373.0	548680.8	1797.9 µg/L	1797.9 ppb	12:05:50
1	Mo 202.031†	16.4	21.7	6.3116 µg/L	6.3116 ppb	12:06:17
1	Ni 231.604†	2548.7	2313.2	120.79 µg/L	120.79 ppb	12:06:17
1	P 214.914†	389.3	372.9	507.50 µg/L	507.50 ppb	12:06:17
1	Pb 220.353†	3908.4	3924.2	980.04 µg/L	980.04 ppb	12:06:17
1	S 181.975 Axial†	95.1	80.1	333.22 µg/L	333.22 ppb	12:06:17
1	Sb 206.836†	44.7	22.2	16.737 µg/L	16.737 ppb	12:06:17
1	Se 196.026†	-39.0	-58.4	194.88 µg/L	194.88 ppb	12:06:17
1	SiO2†	249913.8	255190.5	52122 µg/L	52122 ppb	12:05:50
1	Si 251.611†	302413.9	310066.1	24232 µg/L	24232 ppb	12:05:50
1	Sn 189.927†	15.8	15.9	-3.0366 µg/L	-3.0366 ppb	12:06:17
1	Ti 334.940†	1160134.3	1190526.8	2748.2 µg/L	2748.2 ppb	12:05:50
1	Tl 190.801†	-53.3	-31.0	12.711 µg/L	12.711 ppb	12:06:17
1	U 409.014†	12523.0	12941.2	1088.0 µg/L	1088.0 ppb	12:05:50
1	V 292.402†	17211.0	17709.0	193.41 µg/L	193.41 ppb	12:05:56
1	Zn 213.857†	18412.0	18431.8	425.26 µg/L	425.26 ppb	12:05:56
2	Sc RADIAL	56756.7	56756.7	99.1 %		12:04:51
2	Al 396.153Radial†	128100.7	129293.9	90065 µg/L	90065 ppb	12:04:51
2	Ca 317.933Radial†	20015.8	20011.6	17371 µg/L	17371 ppb	12:05:12
2	Fe 238.204 Radial†	13420.1	13528.8	106880 µg/L	106880 ppb	12:05:12
2	K 766.490 Radial†	16930.2	16918.2	11645 µg/L	11645 ppb	12:04:51
2	Mg 279.077 IEC†	1630.7	1634.8	14363 µg/L	14363 ppb	12:05:12
2	Na 589.592 Radial†	2760.1	2271.5	706.81 µg/L	706.81 ppb	12:05:12
2	Sr 421.552†	15945.5	16065.6	158.54 µg/L	158.54 ppb	12:04:51
2	Sc 361.383	1929864.1	1929864.1	97.207 %		12:06:25
2	Y 371.029	1344641.9	1344641.9	98.552 %		12:06:25
2	Ag 328.068†	93.1	656.8	12.876 µg/L	12.876 ppb	12:06:30
2	As 188.979†	17.9	16.6	35.826 µg/L	35.826 ppb	12:06:51
2	B 249.677†	1432.7	1179.7	-6.8176 µg/L	-6.8176 ppb	12:06:30
2	Ba 233.527†	31449.2	32378.7	798.96 µg/L	798.96 ppb	12:06:30
2	Be 313.107†	44748.1	49634.0	29.800 µg/L	29.800 ppb	12:06:30
2	Cd 226.502†	254.1	407.6	-1.3723 µg/L	-1.3723 ppb	12:06:51
2	Co 228.616†	926.3	961.8	39.023 µg/L	39.023 ppb	12:06:51
2	Cr 267.716†	9323.9	9640.4	200.73 µg/L	200.73 ppb	12:06:30
2	Cu 324.752†	251830.6	256621.0	1709.7 µg/L	1709.7 ppb	12:06:25
2	Mn 257.610†	529940.8	545429.6	1787.1 µg/L	1787.1 ppb	12:06:25
2	Mo 202.031†	9.8	14.9	5.5680 µg/L	5.5680 ppb	12:06:51
2	Ni 231.604†	2535.7	2306.1	120.40 µg/L	120.40 ppb	12:06:51
2	P 214.914†	394.5	379.2	522.04 µg/L	522.04 ppb	12:06:51
2	Pb 220.353†	3926.9	3952.8	987.24 µg/L	987.24 ppb	12:06:51



2	S 181.975 Axial†	98.5	83.9	348.85 µg/L	348.85 ppb	12:06:51
2	Sb 206.836†	51.6	29.5	23.510 µg/L	23.510 ppb	12:06:51
2	Se 196.026†	-36.8	-56.2	193.70 µg/L	193.70 ppb	12:06:51
2	SiO2†	248331.7	254174.9	51914 µg/L	51914 ppb	12:06:25
2	Si 251.611†	300253.5	308584.1	24116 µg/L	24116 ppb	12:06:25
2	Sn 189.927†	11.9	12.0	-4.6051 µg/L	-4.6051 ppb	12:06:51
2	Ti 334.940†	1151784.2	1184777.3	2734.9 µg/L	2734.9 ppb	12:06:25
2	Tl 190.801†	-55.6	-33.5	8.9098 µg/L	8.9098 ppb	12:06:51
2	U 409.014†	12405.4	12850.9	1080.5 µg/L	1080.5 ppb	12:06:25
2	V 292.402†	16840.5	17369.9	189.76 µg/L	189.76 ppb	12:06:30
2	Zn 213.857†	18151.1	18208.5	420.10 µg/L	420.10 ppb	12:06:30
3	Sc RADIAL	56361.9	56361.9	98.4 %		12:05:17
3	Al 396.153Radial†	126973.8	129054.2	89898 µg/L	89898 ppb	12:05:17
3	Ca 317.933Radial†	20078.7	20217.0	17550 µg/L	17550 ppb	12:05:38
3	Fe 238.204 Radial†	13469.3	13673.7	108020 µg/L	108020 ppb	12:05:38
3	K 766.490 Radial†	16819.9	16925.8	11650 µg/L	11650 ppb	12:05:17
3	Mg 279.077 IEC†	1638.5	1654.2	14533 µg/L	14533 ppb	12:05:38
3	Na 589.592 Radial†	2772.3	2303.4	716.75 µg/L	716.75 ppb	12:05:38
3	Sr 421.552†	15735.3	15964.7	157.54 µg/L	157.54 ppb	12:05:17
3	Sc 361.383	1942177.4	1942177.4	97.828 %		12:06:59
3	Y 371.029	1353249.9	1353249.9	99.183 %		12:06:59
3	Ag 328.068†	187.6	752.8	13.631 µg/L	13.631 ppb	12:07:04
3	As 188.979†	14.0	12.5	28.260 µg/L	28.260 ppb	12:07:25
3	B 249.677†	1385.3	1121.8	-9.8142 µg/L	-9.8142 ppb	12:07:04
3	Ba 233.527†	30645.3	31351.9	773.62 µg/L	773.62 ppb	12:07:04
3	Be 313.107†	43268.5	47829.7	28.700 µg/L	28.700 ppb	12:07:04
3	Cd 226.502†	235.8	387.2	-2.0391 µg/L	-2.0391 ppb	12:07:25
3	Co 228.616†	876.2	904.5	36.476 µg/L	36.476 ppb	12:07:25
3	Cr 267.716†	8997.1	9245.4	192.50 µg/L	192.50 ppb	12:07:04
3	Cu 324.752†	249221.4	252311.4	1681.4 µg/L	1681.4 ppb	12:06:59
3	Mn 257.610†	525575.7	537511.3	1761.5 µg/L	1761.5 ppb	12:06:59
3	Mo 202.031†	11.2	16.3	5.7459 µg/L	5.7459 ppb	12:07:25
3	Ni 231.604†	2408.1	2159.1	112.83 µg/L	112.83 ppb	12:07:25
3	P 214.914†	368.4	350.0	465.40 µg/L	465.40 ppb	12:07:25
3	Pb 220.353†	3761.4	3758.0	938.47 µg/L	938.47 ppb	12:07:25
3	S 181.975 Axial†	99.0	83.7	348.32 µg/L	348.32 ppb	12:07:25
3	Sb 206.836†	47.6	25.0	19.455 µg/L	19.455 ppb	12:07:25
3	Se 196.026†	-37.4	-56.6	196.09 µg/L	196.09 ppb	12:07:25
3	SiO2†	245823.1	249990.9	51060 µg/L	51060 ppb	12:06:59
3	Si 251.611†	297483.3	303794.1	23742 µg/L	23742 ppb	12:06:59
3	Sn 189.927†	7.5	7.4	-6.6825 µg/L	-6.6825 ppb	12:07:25
3	Ti 334.940†	1135384.0	1160500.9	2678.9 µg/L	2678.9 ppb	12:06:59
3	Tl 190.801†	-48.4	-25.7	18.731 µg/L	18.731 ppb	12:07:25
3	U 409.014†	12191.7	12551.5	1054.8 µg/L	1054.8 ppb	12:06:59
3	V 292.402†	16265.7	16672.6	182.81 µg/L	182.81 ppb	12:07:04
3	Zn 213.857†	17760.9	17691.3	407.93 µg/L	407.93 ppb	12:07:04

## Mean Data: 245688009|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1935503.2	97.491 %	0.3134			0.32%
Sc RADIAL	56301.5	98.3 %	0.85			0.87%
Y 371.029	1348491.9	98.834 %	0.3207			0.32%
Ag 328.068†	701.2	13.265 µg/L	0.3777	13.265 ppb	0.3777	2.85%
Al 396.153Radial†	129637.5	90304 µg/L	565.4	90304 ppb	565.4	0.63%
As 188.979†	14.1	31.227 µg/L	4.0385	31.227 ppb	4.0385	12.93%
B 249.677†	1165.3	-7.9054 µg/L	1.65848	-7.9054 ppb	1.65848	20.98%
Ba 233.527†	32182.2	794.11 µg/L	18.546	794.11 ppb	18.546	2.34%
Be 313.107†	49241.6	29.562 µg/L	0.7704	29.562 ppb	0.7704	2.61%
Ca 317.933Radial†	20177.2	17515 µg/L	130.0	17515 ppb	130.0	0.74%
Cd 226.502†	398.6	-1.7153 µg/L	0.33379	-1.7153 ppb	0.33379	19.46%
Co 228.616†	945.1	38.278 µg/L	1.5690	38.278 ppb	1.5690	4.10%
Cr 267.716†	9571.4	199.29 µg/L	6.196	199.29 ppb	6.196	3.11%
Cu 324.752†	255598.9	1703.1 µg/L	19.25	1703.1 ppb	19.25	1.13%
Fe 238.204 Radial†	13648.3	107820 µg/L	861.3	107820 ppb	861.3	0.80%
K 766.490 Radial†	17020.5	11715 µg/L	117.4	11715 ppb	117.4	1.00%
Mg 279.077 IEC†	1651.8	14513 µg/L	140.8	14513 ppb	140.8	0.97%
Mn 257.610†	543873.9	1782.2 µg/L	18.69	1782.2 ppb	18.69	1.05%
Mo 202.031†	17.6	5.8752 µg/L	0.38827	5.8752 ppb	0.38827	6.61%
Na 589.592 Radial†	2297.3	714.83 µg/L	7.255	714.83 ppb	7.255	1.01%

Ni 231.604†	2259.5	118.01 µg/L	4.489	118.01 ppb	4.489	3.80%
P 214.914†	367.4	498.31 µg/L	29.414	498.31 ppb	29.414	5.90%
Pb 220.353†	3878.3	968.59 µg/L	26.325	968.59 ppb	26.325	2.72%
S 181.975 Axial†	82.6	343.46 µg/L	8.875	343.46 ppb	8.875	2.58%
Sb 206.836†	25.5	19.901 µg/L	3.4085	19.901 ppb	3.4085	17.13%
Se 196.026†	-57.1	194.89 µg/L	1.197	194.89 ppb	1.197	0.61%
SiO2†	253118.8	51699 µg/L	562.9	51699 ppb	562.9	1.09%
Si 251.611†	307481.4	24030 µg/L	256.2	24030 ppb	256.2	1.07%
Sn 189.927†	11.8	-4.7747 µg/L	1.82889	-4.7747 ppb	1.82889	38.30%
Sr 421.552†	16086.5	158.74 µg/L	1.318	158.74 ppb	1.318	0.83%
Ti 334.940†	1178601.7	2720.7 µg/L	36.80	2720.7 ppb	36.80	1.35%
Tl 190.801†	-30.1	13.451 µg/L	4.9523	13.451 ppb	4.9523	36.82%
U 409.014†	12781.2	1074.5 µg/L	17.40	1074.5 ppb	17.40	1.62%
V 292.402†	17250.5	188.66 µg/L	5.388	188.66 ppb	5.388	2.86%
Zn 213.857†	18110.5	417.76 µg/L	8.899	417.76 ppb	8.899	2.13%

Sequence No.: 38

Sample ID: 245688010|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 416

Date Collected: 2/12/2010 12:07:34

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688010|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57224.2	57224.2	99.9 %		12:08:07
1	Al 396.153Radial†	117915.1	118043.3	82228 µg/L	82228 ppb	12:08:07
1	Ca 317.933Radial†	28280.9	28119.0	24409 µg/L	24409 ppb	12:08:27
1	Fe 238.204 Radial†	15288.3	15288.1	120780 µg/L	120780 ppb	12:08:27
1	K 766.490 Radial†	16638.8	16487.0	11348 µg/L	11348 ppb	12:08:07
1	Mg 279.077 IEC†	1841.2	1832.0	16094 µg/L	16094 ppb	12:08:27
1	Na 589.592 Radial†	10204.8	9700.0	3018.3 µg/L	3018.3 ppb	12:08:07
1	Sr 421.552†	21795.0	21788.8	215.01 µg/L	215.01 ppb	12:08:07
1	Sc 361.383	1956224.7	1956224.7	98.535 %		12:09:32
1	Y 371.029	1410831.7	1410831.7	103.40 %		12:09:32
1	Ag 328.068†	-2224.7	-1696.7	-4.3995 µg/L	-4.3995 ppb	12:09:38
1	As 188.979†	19.0	17.5	37.867 µg/L	37.867 ppb	12:09:58
1	B 249.677†	1221.0	944.9	-23.636 µg/L	-23.636 ppb	12:09:38
1	Ba 233.527†	46669.0	47388.8	1169.1 µg/L	1169.1 ppb	12:09:38
1	Be 313.107†	12913.7	16706.1	9.3021 µg/L	9.3021 ppb	12:09:38
1	Cd 226.502†	250.2	400.1	-3.1098 µg/L	-3.1098 ppb	12:09:58
1	Co 228.616†	1012.3	1036.2	42.288 µg/L	42.288 ppb	12:09:58
1	Cr 267.716†	12697.0	12934.3	269.25 µg/L	269.25 ppb	12:09:38
1	Cu 324.752†	7470.2	5137.1	50.716 µg/L	50.716 ppb	12:09:38
1	Mn 257.610†	819836.8	832288.9	2721.6 µg/L	2721.6 ppb	12:09:32
1	Mo 202.031†	47.1	52.6	9.9012 µg/L	9.9012 ppb	12:09:58
1	Ni 231.604†	3107.0	2850.7	148.70 µg/L	148.70 ppb	12:09:58
1	P 214.914†	319.1	297.3	519.04 µg/L	519.04 ppb	12:09:58
1	Pb 220.353†	415.9	335.2	84.027 µg/L	84.027 ppb	12:09:58
1	S 181.975 Axial†	142.2	126.9	527.73 µg/L	527.73 ppb	12:09:58
1	Sb 206.836†	42.6	19.5	12.993 µg/L	12.993 ppb	12:09:58
1	Se 196.026†	-51.7	-70.8	207.23 µg/L	207.23 ppb	12:09:58
1	SiO2†	233896.0	236082.1	48219 µg/L	48219 ppb	12:09:32
1	Si 251.611†	282728.4	286636.2	22401 µg/L	22401 ppb	12:09:32
1	Sn 189.927†	-22.3	-23.0	-21.034 µg/L	-21.034 ppb	12:09:58
1	Ti 334.940†	1208565.4	1226436.1	2831.1 µg/L	2831.1 ppb	12:09:32
1	Tl 190.801†	-56.6	-33.7	12.427 µg/L	12.427 ppb	12:09:58
1	U 409.014†	-1923.6	-1863.1	-177.24 µg/L	-177.24 ppb	12:09:32
1	V 292.402†	12790.1	13026.0	146.37 µg/L	146.37 ppb	12:09:38
1	Zn 213.857†	12030.7	11745.5	269.53 µg/L	269.53 ppb	12:09:38
2	Sc RADIAL	56975.4	56975.4	99.5 %		12:08:33
2	Al 396.153Radial†	118440.7	119087.0	82955 µg/L	82955 ppb	12:08:33
2	Ca 317.933Radial†	28195.9	28157.1	24442 µg/L	24442 ppb	12:08:53
2	Fe 238.204 Radial†	15289.4	15356.0	121310 µg/L	121310 ppb	12:08:53
2	K 766.490 Radial†	16856.7	16778.7	11549 µg/L	11549 ppb	12:08:33
2	Mg 279.077 IEC†	1842.2	1841.1	16174 µg/L	16174 ppb	12:08:53
2	Na 589.592 Radial†	10254.9	9795.0	3047.8 µg/L	3047.8 ppb	12:08:33
2	Sr 421.552†	21858.2	21947.6	216.58 µg/L	216.58 ppb	12:08:33
2	Sc 361.383	1966552.1	1966552.1	99.055 %		12:10:06
2	Y 371.029	1418287.0	1418287.0	103.95 %		12:10:06
2	Ag 328.068†	-2159.5	-1619.0	-3.7927 µg/L	-3.7927 ppb	12:10:12
2	As 188.979†	15.6	14.0	31.417 µg/L	31.417 ppb	12:10:32
2	B 249.677†	1184.2	901.2	-25.722 µg/L	-25.722 ppb	12:10:12
2	Ba 233.527†	46509.5	46979.0	1159.0 µg/L	1159.0 ppb	12:10:12
2	Be 313.107†	12968.2	16692.3	9.2896 µg/L	9.2896 ppb	12:10:12
2	Cd 226.502†	243.7	392.2	-3.3771 µg/L	-3.3771 ppb	12:10:32
2	Co 228.616†	1034.1	1052.8	43.038 µg/L	43.038 ppb	12:10:32
2	Cr 267.716†	12649.9	12819.1	266.85 µg/L	266.85 ppb	12:10:12
2	Cu 324.752†	7536.3	5164.0	50.968 µg/L	50.968 ppb	12:10:12
2	Mn 257.610†	829072.5	837243.3	2737.8 µg/L	2737.8 ppb	12:10:06
2	Mo 202.031†	43.9	49.1	9.5670 µg/L	9.5670 ppb	12:10:32
2	Ni 231.604†	3092.7	2819.7	147.10 µg/L	147.10 ppb	12:10:32
2	P 214.914†	309.0	285.4	494.97 µg/L	494.97 ppb	12:10:32
2	Pb 220.353†	404.8	321.7	80.675 µg/L	80.675 ppb	12:10:32

2	S 181.975 Axial†	151.5	135.5	563.48 µg/L	563.48 ppb	12:10:32
2	Sb 206.836†	41.8	18.5	12.091 µg/L	12.091 ppb	12:10:32
2	Se 196.026†	-43.5	-62.3	220.88 µg/L	220.88 ppb	12:10:32
2	SiO2†	235586.1	236541.7	48313 µg/L	48313 ppb	12:10:06
2	Si 251.611†	285091.9	287515.4	22469 µg/L	22469 ppb	12:10:06
2	Sn 189.927†	-18.4	-18.8	-19.297 µg/L	-19.297 ppb	12:10:32
2	Ti 334.940†	1219315.7	1230847.8	2841.3 µg/L	2841.3 ppb	12:10:06
2	Tl 190.801†	-52.2	-29.0	18.922 µg/L	18.922 ppb	12:10:32
2	U 409.014†	-1855.4	-1783.9	-170.56 µg/L	-170.56 ppb	12:10:06
2	V 292.402†	12614.5	12780.5	143.96 µg/L	143.96 ppb	12:10:12
2	Zn 213.857†	11962.4	11612.5	266.37 µg/L	266.37 ppb	12:10:12
3	Sc RADIAL	57066.3	57066.3	99.6 %		12:08:59
3	Al 396.153Radial†	117539.5	117992.8	82193 µg/L	82193 ppb	12:08:59
3	Ca 317.933Radial†	28283.7	28200.1	24480 µg/L	24480 ppb	12:09:19
3	Fe 238.204 Radial†	15328.8	15371.1	121430 µg/L	121430 ppb	12:09:19
3	K 766.490 Radial†	16594.1	16488.2	11349 µg/L	11349 ppb	12:08:59
3	Mg 279.077 IEC†	1854.6	1850.5	16258 µg/L	16258 ppb	12:09:19
3	Na 589.592 Radial†	10164.1	9687.4	3014.4 µg/L	3014.4 ppb	12:08:59
3	Sr 421.552†	21678.3	21732.0	214.45 µg/L	214.45 ppb	12:08:59
3	Sc 361.383	1983563.0	1983563.0	99.912 %		12:10:40
3	Y 371.029	1428761.2	1428761.2	104.72 %		12:10:40
3	Ag 328.068†	-2058.5	-1499.3	-2.9079 µg/L	-2.9079 ppb	12:10:46
3	As 188.979†	5.3	3.5	12.196 µg/L	12.196 ppb	12:11:06
3	B 249.677†	1172.0	878.8	-26.726 µg/L	-26.726 ppb	12:10:46
3	Ba 233.527†	45450.6	45516.5	1122.9 µg/L	1122.9 ppb	12:10:46
3	Be 313.107†	12415.9	16027.2	8.9092 µg/L	8.9092 ppb	12:10:46
3	Cd 226.502†	222.5	368.9	-4.0071 µg/L	-4.0071 ppb	12:11:06
3	Co 228.616†	937.3	947.0	38.296 µg/L	38.296 ppb	12:11:06
3	Cr 267.716†	12205.4	12264.7	255.31 µg/L	255.31 ppb	12:10:46
3	Cu 324.752†	7593.0	5155.5	50.928 µg/L	50.928 ppb	12:10:46
3	Mn 257.610†	813794.3	814773.8	2664.8 µg/L	2664.8 ppb	12:10:40
3	Mo 202.031†	46.7	51.6	9.8213 µg/L	9.8213 ppb	12:11:06
3	Ni 231.604†	2909.4	2609.4	136.26 µg/L	136.26 ppb	12:11:06
3	P 214.914†	288.6	262.2	448.08 µg/L	448.08 ppb	12:11:06
3	Pb 220.353†	402.4	315.8	79.143 µg/L	79.143 ppb	12:11:06
3	S 181.975 Axial†	134.2	116.9	486.21 µg/L	486.21 ppb	12:11:06
3	Sb 206.836†	28.9	5.2	-0.0851 µg/L	-0.0851 ppb	12:11:06
3	Se 196.026†	-36.5	-54.9	231.72 µg/L	231.72 ppb	12:11:06
3	SiO2†	232244.3	231157.3	47213 µg/L	47213 ppb	12:10:40
3	Si 251.611†	280913.8	280865.4	21950 µg/L	21950 ppb	12:10:40
3	Sn 189.927†	-27.9	-28.2	-23.369 µg/L	-23.369 ppb	12:11:06
3	Ti 334.940†	1192528.7	1193480.8	2755.0 µg/L	2755.0 ppb	12:10:40
3	Tl 190.801†	-54.2	-30.5	15.854 µg/L	15.854 ppb	12:11:06
3	U 409.014†	-1820.2	-1732.7	-166.21 µg/L	-166.21 ppb	12:10:40
3	V 292.402†	12246.1	12302.5	139.12 µg/L	139.12 ppb	12:10:46
3	Zn 213.857†	11709.3	11255.6	258.00 µg/L	258.00 ppb	12:10:46

## Mean Data: 245688010|948032|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1968779.9	99.168	%	0.6953				0.70%
Sc RADIAL	57088.7	99.7	%	0.22				0.22%
Y 371.029	1419293.3	104.02	%	0.660				0.63%
Ag 328.068†	-1605.0	-3.7001	µg/L	0.75010	-3.7001	ppb	0.75010	20.27%
Al 396.153Radial†	118374.3	82459	µg/L	430.3	82459	ppb	430.3	0.52%
As 188.979†	11.6	27.160	µg/L	13.3542	27.160	ppb	13.3542	49.17%
B 249.677†	908.3	-25.362	µg/L	1.5762	-25.362	ppb	1.5762	6.21%
Ba 233.527†	46628.1	1150.3	µg/L	24.28	1150.3	ppb	24.28	2.11%
Be 313.107†	16475.2	9.1670	µg/L	0.22332	9.1670	ppb	0.22332	2.44%
Ca 317.933Radial†	28158.7	24444	µg/L	35.2	24444	ppb	35.2	0.14%
Cd 226.502†	387.1	-3.4980	µg/L	0.46066	-3.4980	ppb	0.46066	13.17%
Co 228.616†	1012.0	41.207	µg/L	2.5492	41.207	ppb	2.5492	6.19%
Cr 267.716†	12672.7	263.80	µg/L	7.452	263.80	ppb	7.452	2.82%
Cu 324.752†	5152.2	50.871	µg/L	0.1356	50.871	ppb	0.1356	0.27%
Fe 238.204 Radial†	15338.4	121170	µg/L	349.3	121170	ppb	349.3	0.29%
K 766.490 Radial†	16584.6	11415	µg/L	115.7	11415	ppb	115.7	1.01%
Mg 279.077 IEC†	1841.2	16175	µg/L	81.6	16175	ppb	81.6	0.50%
Mn 257.610†	828102.0	2708.1	µg/L	38.37	2708.1	ppb	38.37	1.42%
Mo 202.031†	51.1	9.7632	µg/L	0.17452	9.7632	ppb	0.17452	1.79%
Na 589.592 Radial†	9727.5	3026.8	µg/L	18.29	3026.8	ppb	18.29	0.60%

Ni 231.604†	2759.9	144.02 µg/L	6.771	144.02 ppb	6.771	4.70%
P 214.914†	281.6	487.36 µg/L	36.086	487.36 ppb	36.086	7.40%
Pb 220.353†	324.2	81.281 µg/L	2.4981	81.281 ppb	2.4981	3.07%
S 181.975 Axial†	126.4	525.81 µg/L	38.674	525.81 ppb	38.674	7.36%
Sb 206.836†	14.4	8.3330 µg/L	7.30423	8.3330 ppb	7.30423	87.65%
Se 196.026†	-62.6	219.94 µg/L	12.272	219.94 ppb	12.272	5.58%
SiO2†	234593.7	47915 µg/L	609.7	47915 ppb	609.7	1.27%
Si 251.611†	285005.7	22273 µg/L	282.3	22273 ppb	282.3	1.27%
Sn 189.927†	-23.3	-21.233 µg/L	2.0434	-21.233 ppb	2.0434	9.62%
Sr 421.552†	21822.8	215.35 µg/L	1.103	215.35 ppb	1.103	0.51%
Ti 334.940†	1216921.6	2809.1 µg/L	47.16	2809.1 ppb	47.16	1.68%
Tl 190.801†	-31.0	15.734 µg/L	3.2495	15.734 ppb	3.2495	20.65%
U 409.014†	-1793.2	-171.34 µg/L	5.557	-171.34 ppb	5.557	3.24%
V 292.402†	12703.0	143.15 µg/L	3.695	143.15 ppb	3.695	2.58%
Zn 213.857†	11537.8	264.63 µg/L	5.961	264.63 ppb	5.961	2.25%

Sequence No.: 39

Sample ID: 245688011|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 417

Date Collected: 2/12/2010 12:11:15

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688011|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56524.3	56524.3	98.7 %		12:11:48
1	Al 396.153Radial†	55143.7	55899.9	38939 µg/L	38939 ppb	12:11:48
1	Ca 317.933Radial†	34603.9	34876.4	30275 µg/L	30275 ppb	12:11:48
1	Fe 238.204 Radial†	9268.7	9378.0	74086 µg/L	74086 ppb	12:12:08
1	K 766.490 Radial†	6842.5	6766.8	4657.7 µg/L	4657.7 ppb	12:11:48
1	Mg 279.077 IEC†	942.4	944.0	8280.9 µg/L	8280.9 ppb	12:12:08
1	Na 589.592 Radial†	9720.7	9335.9	2905.0 µg/L	2905.0 ppb	12:11:48
1	Sr 421.552†	14185.0	14347.9	141.59 µg/L	141.59 ppb	12:11:48
1	Sc 361.383	1955784.7	1955784.7	98.513 %		12:13:12
1	Y 371.029	1409497.4	1409497.4	103.31 %		12:13:12
1	Ag 328.068†	-1693.5	-1158.0	-3.7448 µg/L	-3.7448 ppb	12:13:18
1	As 188.979†	7.2	5.4	12.706 µg/L	12.706 ppb	12:13:38
1	B 249.677†	695.8	412.1	-21.222 µg/L	-21.222 ppb	12:13:18
1	Ba 233.527†	22193.2	22554.2	556.42 µg/L	556.42 ppb	12:13:18
1	Be 313.107†	9876.8	13626.3	7.8490 µg/L	7.8490 ppb	12:13:18
1	Cd 226.502†	89.1	236.7	-2.0653 µg/L	-2.0653 ppb	12:13:38
1	Co 228.616†	300.7	314.1	11.232 µg/L	11.232 ppb	12:13:38
1	Cr 267.716†	13196.9	13444.7	279.82 µg/L	279.82 ppb	12:13:18
1	Cu 324.752†	5663.4	3304.7	32.124 µg/L	32.124 ppb	12:13:18
1	Mn 257.610†	760457.1	772200.1	2520.4 µg/L	2520.4 ppb	12:13:12
1	Mo 202.031†	92.3	98.5	12.759 µg/L	12.759 ppb	12:13:38
1	Ni 231.604†	3356.4	3104.6	161.24 µg/L	161.24 ppb	12:13:38
1	P 214.914†	178.2	154.3	258.69 µg/L	258.69 ppb	12:13:38
1	Pb 220.353†	287.4	204.8	50.791 µg/L	50.791 ppb	12:13:38
1	S 181.975 Axial†	165.0	150.0	624.00 µg/L	624.00 ppb	12:13:38
1	Sb 206.836†	35.8	12.7	6.1186 µg/L	6.1186 ppb	12:13:38
1	Se 196.026†	-32.0	-50.8	113.64 µg/L	113.64 ppb	12:13:38
1	SiO2†	185245.8	186751.0	38143 µg/L	38143 ppb	12:13:18
1	Si 251.611†	227163.1	230296.8	17998 µg/L	17998 ppb	12:13:12
1	Sn 189.927†	-5.7	-6.1	-9.7241 µg/L	-9.7241 ppb	12:13:38
1	Ti 334.940†	692456.2	702812.7	1622.7 µg/L	1622.7 ppb	12:13:12
1	Tl 190.801†	-40.2	-17.1	12.268 µg/L	12.268 ppb	12:13:38
1	U 409.014†	-1879.1	-1818.4	-167.29 µg/L	-167.29 ppb	12:13:12
1	V 292.402†	5518.1	5647.1	66.359 µg/L	66.359 ppb	12:13:18
1	Zn 213.857†	10127.9	9816.7	226.69 µg/L	226.69 ppb	12:13:18
2	Sc RADIAL	56945.0	56945.0	99.4 %		12:12:14
2	Al 396.153Radial†	55563.9	55909.8	38946 µg/L	38946 ppb	12:12:14
2	Ca 317.933Radial†	34747.1	34761.4	30175 µg/L	30175 ppb	12:12:14
2	Fe 238.204 Radial†	9288.9	9329.0	73699 µg/L	73699 ppb	12:12:34
2	K 766.490 Radial†	6929.0	6802.6	4682.3 µg/L	4682.3 ppb	12:12:14
2	Mg 279.077 IEC†	944.3	938.9	8236.0 µg/L	8236.0 ppb	12:12:34
2	Na 589.592 Radial†	9747.8	9290.4	2890.9 µg/L	2890.9 ppb	12:12:14
2	Sr 421.552†	14298.8	14356.2	141.67 µg/L	141.67 ppb	12:12:14
2	Sc 361.383	1950748.9	1950748.9	98.259 %		12:13:46
2	Y 371.029	1404254.7	1404254.7	102.92 %		12:13:46
2	Ag 328.068†	-1624.4	-1092.1	-3.2712 µg/L	-3.2712 ppb	12:13:52
2	As 188.979†	12.1	10.4	21.892 µg/L	21.892 ppb	12:14:12
2	B 249.677†	673.2	390.9	-21.894 µg/L	-21.894 ppb	12:13:52
2	Ba 233.527†	22033.7	22450.1	553.85 µg/L	553.85 ppb	12:13:52
2	Be 313.107†	9813.3	13587.5	7.8277 µg/L	7.8277 ppb	12:13:52
2	Cd 226.502†	84.8	232.4	-2.1306 µg/L	-2.1306 ppb	12:14:12
2	Co 228.616†	311.2	325.6	11.780 µg/L	11.780 ppb	12:14:12
2	Cr 267.716†	13170.1	13451.9	279.97 µg/L	279.97 ppb	12:13:52
2	Cu 324.752†	5646.4	3302.2	32.054 µg/L	32.054 ppb	12:13:52
2	Mn 257.610†	755203.5	768846.1	2509.4 µg/L	2509.4 ppb	12:13:46
2	Mo 202.031†	97.2	103.8	13.274 µg/L	13.274 ppb	12:14:12
2	Ni 231.604†	3367.3	3124.5	162.26 µg/L	162.26 ppb	12:14:12
2	P 214.914†	168.6	145.0	240.32 µg/L	240.32 ppb	12:14:12
2	Pb 220.353†	272.5	190.5	47.219 µg/L	47.219 ppb	12:14:12

2	S 181.975 Axial†	172.2	157.8	656.15 µg/L	656.15 ppb	12:14:12
2	Sb 206.836†	36.9	13.8	7.1923 µg/L	7.1923 ppb	12:14:12
2	Se 196.026†	-18.6	-37.3	132.11 µg/L	132.11 ppb	12:14:12
2	SiO2†	184320.9	186295.1	38050 µg/L	38050 ppb	12:13:52
2	Si 251.611†	225427.7	229126.0	17906 µg/L	17906 ppb	12:13:46
2	Sn 189.927†	-6.6	-7.0	-10.082 µg/L	-10.082 ppb	12:14:12
2	Ti 334.940†	687526.6	699610.3	1615.3 µg/L	1615.3 ppb	12:13:46
2	Tl 190.801†	-41.6	-18.6	10.169 µg/L	10.169 ppb	12:14:12
2	U 409.014†	-1939.5	-1884.7	-172.89 µg/L	-172.89 ppb	12:13:46
2	V 292.402†	5473.4	5616.0	65.999 µg/L	65.999 ppb	12:13:52
2	Zn 213.857†	10006.1	9719.3	224.41 µg/L	224.41 ppb	12:13:52
3	Sc RADIAL	56996.4	56996.4	99.5 %		12:12:39
3	Al 396.153Radial†	55589.9	55885.6	38929 µg/L	38929 ppb	12:12:39
3	Ca 317.933Radial†	34808.4	34791.5	30201 µg/L	30201 ppb	12:12:39
3	Fe 238.204 Radial†	9236.8	9268.2	73218 µg/L	73218 ppb	12:13:00
3	K 766.490 Radial†	6936.1	6803.4	4682.9 µg/L	4682.9 ppb	12:12:39
3	Mg 279.077 IEC†	950.0	943.8	8279.7 µg/L	8279.7 ppb	12:13:00
3	Na 589.592 Radial†	9793.4	9327.4	2902.4 µg/L	2902.4 ppb	12:12:39
3	Sr 421.552†	14291.3	14335.7	141.47 µg/L	141.47 ppb	12:12:39
3	Sc 361.383	1976555.4	1976555.4	99.559 %		12:14:20
3	Y 371.029	1423314.8	1423314.8	104.32 %		12:14:20
3	Ag 328.068†	-1625.5	-1071.6	-3.1640 µg/L	-3.1640 ppb	12:14:25
3	As 188.979†	10.6	8.8	18.905 µg/L	18.905 ppb	12:14:46
3	B 249.677†	682.4	391.2	-21.652 µg/L	-21.652 ppb	12:14:25
3	Ba 233.527†	21551.0	21672.4	534.66 µg/L	534.66 ppb	12:14:25
3	Be 313.107†	9473.8	13116.1	7.5438 µg/L	7.5438 ppb	12:14:25
3	Cd 226.502†	69.3	215.8	-2.5194 µg/L	-2.5194 ppb	12:14:46
3	Co 228.616†	285.9	296.1	10.457 µg/L	10.457 ppb	12:14:46
3	Cr 267.716†	12697.4	12802.2	266.45 µg/L	266.45 ppb	12:14:25
3	Cu 324.752†	5570.5	3151.0	30.988 µg/L	30.988 ppb	12:14:25
3	Mn 257.610†	756908.7	760524.1	2482.3 µg/L	2482.3 ppb	12:14:20
3	Mo 202.031†	93.1	98.4	12.712 µg/L	12.712 ppb	12:14:46
3	Ni 231.604†	3200.3	2912.0	151.29 µg/L	151.29 ppb	12:14:46
3	P 214.914†	163.7	137.8	226.41 µg/L	226.41 ppb	12:14:46
3	Pb 220.353†	275.9	190.2	47.157 µg/L	47.157 ppb	12:14:46
3	S 181.975 Axial†	160.5	143.8	598.02 µg/L	598.02 ppb	12:14:46
3	Sb 206.836†	44.9	21.4	14.314 µg/L	14.314 ppb	12:14:46
3	Se 196.026†	-20.2	-38.6	128.85 µg/L	128.85 ppb	12:14:46
3	SiO2†	180582.4	180090.9	36783 µg/L	36783 ppb	12:14:25
3	Si 251.611†	226813.4	227522.4	17781 µg/L	17781 ppb	12:14:20
3	Sn 189.927†	-6.6	-6.9	-9.9824 µg/L	-9.9824 ppb	12:14:46
3	Ti 334.940†	686421.5	689364.8	1591.7 µg/L	1591.7 ppb	12:14:20
3	Tl 190.801†	-43.9	-20.3	7.4550 µg/L	7.4550 ppb	12:14:46
3	U 409.014†	-1809.5	-1728.4	-159.49 µg/L	-159.49 ppb	12:14:20
3	V 292.402†	5271.4	5340.5	63.135 µg/L	63.135 ppb	12:14:25
3	Zn 213.857†	9878.4	9458.0	218.32 µg/L	218.32 ppb	12:14:25

Mean Data: 245688011|948032|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1961029.7	98.777 %		0.6890			0.70%
Sc RADIAL	56821.9	99.2 %		0.45			0.46%
Y 371.029	1412355.6	103.51 %		0.722			0.70%
Ag 328.068†	-1107.3	-3.3933 µg/L		0.30903	-3.3933 ppb	0.30903	9.11%
Al 396.153Radial†	55898.4	38938 µg/L		8.5	38938 ppb	8.5	0.02%
As 188.979†	8.2	17.835 µg/L		4.6859	17.835 ppb	4.6859	26.27%
B 249.677†	398.1	-21.589 µg/L		0.3403	-21.589 ppb	0.3403	1.58%
Ba 233.527†	22225.6	548.31 µg/L		11.888	548.31 ppb	11.888	2.17%
Be 313.107†	13443.3	7.7402 µg/L		0.17038	7.7402 ppb	0.17038	2.20%
Ca 317.933Radial†	34809.7	30217 µg/L		51.8	30217 ppb	51.8	0.17%
Cd 226.502†	228.3	-2.2384 µg/L		0.24549	-2.2384 ppb	0.24549	10.97%
Co 228.616†	311.9	11.156 µg/L		0.6646	11.156 ppb	0.6646	5.96%
Cr 267.716†	13232.9	275.41 µg/L		7.765	275.41 ppb	7.765	2.82%
Cu 324.752†	3252.7	31.722 µg/L		0.6364	31.722 ppb	0.6364	2.01%
Fe 238.204 Radial†	9325.1	73668 µg/L		434.6	73668 ppb	434.6	0.59%
K 766.490 Radial†	6791.0	4674.3 µg/L		14.37	4674.3 ppb	14.37	0.31%
Mg 279.077 IEC†	942.3	8265.5 µg/L		25.60	8265.5 ppb	25.60	0.31%
Mn 257.610†	767190.1	2504.0 µg/L		19.60	2504.0 ppb	19.60	0.78%
Mo 202.031†	100.2	12.915 µg/L		0.3121	12.915 ppb	0.3121	2.42%
Na 589.592 Radial†	9317.9	2899.4 µg/L		7.52	2899.4 ppb	7.52	0.26%

Ni 231.604†	3047.0	158.26 µg/L	6.062	158.26 ppb	6.062	3.83%
P 214.914†	145.7	241.80 µg/L	16.189	241.80 ppb	16.189	6.70%
Pb 220.353†	195.1	48.389 µg/L	2.0803	48.389 ppb	2.0803	4.30%
S 181.975 Axial†	150.5	626.06 µg/L	29.119	626.06 ppb	29.119	4.65%
Sb 206.836†	16.0	9.2084 µg/L	4.45434	9.2084 ppb	4.45434	48.37%
Se 196.026†	-42.2	124.87 µg/L	9.856	124.87 ppb	9.856	7.89%
SiO2†	184379.0	37659 µg/L	759.9	37659 ppb	759.9	2.02%
Si 251.611†	228981.7	17895 µg/L	108.8	17895 ppb	108.8	0.61%
Sn 189.927†	-6.7	-9.9294 µg/L	0.18468	-9.9294 ppb	0.18468	1.86%
Sr 421.552†	14346.6	141.57 µg/L	0.102	141.57 ppb	0.102	0.07%
Ti 334.940†	697262.6	1609.9 µg/L	16.22	1609.9 ppb	16.22	1.01%
Tl 190.801†	-18.7	9.9638 µg/L	2.41284	9.9638 ppb	2.41284	24.22%
U 409.014†	-1810.5	-166.56 µg/L	6.732	-166.56 ppb	6.732	4.04%
V 292.402†	5534.5	65.164 µg/L	1.7665	65.164 ppb	1.7665	2.71%
Zn 213.857†	9664.7	223.14 µg/L	4.326	223.14 ppb	4.326	1.94%



Sequence No.: 40

Sample ID: 245688012|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 418

Date Collected: 2/12/2010 12:14:56

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688012|948032|1

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58669.1	58669.1	102 %		12:15:28
1	Al 396.153Radial†	104641.1	102178.2	71176 µg/L	71176 ppb	12:15:28
1	Ca 317.933Radial†	25349.4	24560.0	21320 µg/L	21320 ppb	12:15:49
1	Fe 238.204 Radial†	12230.3	11925.9	94216 µg/L	94216 ppb	12:15:49
1	K 766.490 Radial†	19510.0	18879.8	12995 µg/L	12995 ppb	12:15:28
1	Mg 279.077 IEC†	1806.1	1752.3	15417 µg/L	15417 ppb	12:15:49
1	Na 589.592 Radial†	2276.5	1708.6	531.65 µg/L	531.65 ppb	12:15:49
1	Sr 421.552†	26719.6	26059.1	257.15 µg/L	257.15 ppb	12:15:28
1	Sc 361.383	1956375.5	1956375.5	98.543 %		12:16:53
1	Y 371.029	1400313.9	1400313.9	102.63 %		12:16:53
1	Ag 328.068†	-1893.9	-1360.8	-3.1589 µg/L	-3.1589 ppb	12:16:59
1	As 188.979†	8.4	6.7	16.736 µg/L	16.736 ppb	12:17:19
1	B 249.677†	1214.6	938.3	-10.273 µg/L	-10.273 ppb	12:16:59
1	Ba 233.527†	57210.4	58082.5	1433.0 µg/L	1433.0 ppb	12:16:59
1	Be 313.107†	17354.0	21211.0	11.720 µg/L	11.720 ppb	12:16:59
1	Cd 226.502†	288.9	439.3	0.8622 µg/L	0.8622 ppb	12:17:19
1	Co 228.616†	1715.0	1749.2	73.365 µg/L	73.365 ppb	12:17:19
1	Cr 267.716†	6080.3	6218.7	129.53 µg/L	129.53 ppb	12:16:59
1	Cu 324.752†	72922.9	71557.0	485.69 µg/L	485.69 ppb	12:16:59
1	Mn 257.610†	1727298.5	1753105.5	5712.2 µg/L	5712.2 ppb	12:16:53
1	Mo 202.031†	75.1	81.0	11.759 µg/L	11.759 ppb	12:17:19
1	Ni 231.604†	2182.1	1911.8	99.840 µg/L	99.840 ppb	12:17:19
1	P 214.914†	624.9	607.5	1114.2 µg/L	1114.2 ppb	12:17:19
1	Pb 220.353†	1022.2	950.4	237.49 µg/L	237.49 ppb	12:17:19
1	S 181.975 Axial†	330.8	318.3	1323.8 µg/L	1323.8 ppb	12:17:19
1	Sb 206.836†	37.4	14.3	10.080 µg/L	10.080 ppb	12:17:19
1	Se 196.026†	-20.8	-39.5	181.12 µg/L	181.12 ppb	12:17:19
1	SiO2†	214304.1	216182.1	44155 µg/L	44155 ppb	12:16:53
1	Si 251.611†	259482.9	263024.9	20556 µg/L	20556 ppb	12:16:53
1	Sn 189.927†	-42.0	-42.9	-26.899 µg/L	-26.899 ppb	12:17:19
1	Ti 334.940†	1635576.9	1659667.5	3831.5 µg/L	3831.5 ppb	12:16:53
1	Tl 190.801†	-59.1	-36.2	25.964 µg/L	25.964 ppb	12:17:19
1	U 409.014†	1909.4	2026.8	158.53 µg/L	158.53 ppb	12:16:53
1	V 292.402†	18180.7	18495.3	198.58 µg/L	198.58 ppb	12:16:59
1	Zn 213.857†	12278.5	11996.1	276.25 µg/L	276.25 ppb	12:16:59
2	Sc RADIAL	55890.6	55890.6	97.6 %		12:15:54
2	Al 396.153Radial†	105362.0	107995.3	75229 µg/L	75229 ppb	12:15:54
2	Ca 317.933Radial†	25224.6	25662.4	22277 µg/L	22277 ppb	12:16:15
2	Fe 238.204 Radial†	12216.6	12505.4	98793 µg/L	98793 ppb	12:16:15
2	K 766.490 Radial†	19539.3	19856.7	13668 µg/L	13668 ppb	12:15:54
2	Mg 279.077 IEC†	1811.6	1845.6	16239 µg/L	16239 ppb	12:16:15
2	Na 589.592 Radial†	2261.9	1804.2	561.39 µg/L	561.39 ppb	12:16:15
2	Sr 421.552†	26779.0	27416.8	270.55 µg/L	270.55 ppb	12:15:54
2	Sc 361.383	1962505.9	1962505.9	98.852 %		12:17:27
2	Y 371.029	1404904.8	1404904.8	102.97 %		12:17:27
2	Ag 328.068†	-1905.1	-1366.2	-2.9138 µg/L	-2.9138 ppb	12:17:33
2	As 188.979†	14.7	13.0	28.463 µg/L	28.463 ppb	12:17:53
2	B 249.677†	1187.3	906.8	-13.961 µg/L	-13.961 ppb	12:17:33
2	Ba 233.527†	57392.5	58085.3	1433.0 µg/L	1433.0 ppb	12:17:33
2	Be 313.107†	17508.4	21312.2	11.799 µg/L	11.799 ppb	12:17:33
2	Cd 226.502†	298.8	448.4	0.5810 µg/L	0.5810 ppb	12:17:53
2	Co 228.616†	1717.6	1746.4	73.323 µg/L	73.323 ppb	12:17:53
2	Cr 267.716†	6092.4	6211.7	129.38 µg/L	129.38 ppb	12:17:33
2	Cu 324.752†	72928.0	71331.1	484.84 µg/L	484.84 ppb	12:17:33
2	Mn 257.610†	1713005.8	1733171.2	5648.0 µg/L	5648.0 ppb	12:17:27
2	Mo 202.031†	71.9	77.6	11.588 µg/L	11.588 ppb	12:17:53
2	Ni 231.604†	2187.1	1910.0	99.804 µg/L	99.804 ppb	12:17:53
2	P 214.914†	628.8	609.5	1115.9 µg/L	1115.9 ppb	12:17:53
2	Pb 220.353†	1019.3	944.2	236.00 µg/L	236.00 ppb	12:17:53

2	S 181.975 Axial†	332.0	318.5	1324.5 µg/L	1324.5 ppb	12:17:53
2	Sb 206.836†	33.3	10.0	5.9727 µg/L	5.9727 ppb	12:17:53
2	Se 196.026†	-23.8	-42.4	188.39 µg/L	188.39 ppb	12:17:53
2	SiO2†	212839.8	214021.5	43713 µg/L	43713 ppb	12:17:27
2	Si 251.611†	257392.7	260087.9	20326 µg/L	20326 ppb	12:17:27
2	Sn 189.927†	-38.6	-39.4	-25.774 µg/L	-25.774 ppb	12:17:53
2	Ti 334.940†	1622574.1	1641329.0	3789.1 µg/L	3789.1 ppb	12:17:27
2	Tl 190.801†	-64.3	-41.3	19.573 µg/L	19.573 ppb	12:17:53
2	U 409.014†	1814.9	1925.1	149.16 µg/L	149.16 ppb	12:17:27
2	V 292.402†	18197.8	18454.9	198.69 µg/L	198.69 ppb	12:17:33
2	Zn 213.857†	12280.6	11959.3	275.12 µg/L	275.12 ppb	12:17:33
3	Sc RADIAL	56412.5	56412.5	98.5 %		12:16:20
3	Al 396.153Radial†	108225.2	109903.6	76558 µg/L	76558 ppb	12:16:20
3	Ca 317.933Radial†	25328.6	25528.9	22161 µg/L	22161 ppb	12:16:41
3	Fe 238.204 Radial†	12251.5	12425.1	98159 µg/L	98159 ppb	12:16:41
3	K 766.490 Radial†	20014.1	20153.5	13872 µg/L	13872 ppb	12:16:20
3	Mg 279.077 IEC†	1810.7	1827.6	16079 µg/L	16079 ppb	12:16:41
3	Na 589.592 Radial†	2265.6	1786.5	555.88 µg/L	555.88 ppb	12:16:41
3	Sr 421.552†	27591.8	27988.1	276.19 µg/L	276.19 ppb	12:16:20
3	Sc 361.383	1945514.8	1945514.8	97.996 %		12:18:01
3	Y 371.029	1391675.5	1391675.5	102.00 %		12:18:01
3	Ag 328.068†	-1795.9	-1271.6	-2.2751 µg/L	-2.2751 ppb	12:18:06
3	As 188.979†	17.0	15.5	33.033 µg/L	33.033 ppb	12:18:27
3	B 249.677†	1170.6	900.3	-13.902 µg/L	-13.902 ppb	12:18:06
3	Ba 233.527†	55452.8	56613.0	1396.7 µg/L	1396.7 ppb	12:18:06
3	Be 313.107†	16624.4	20564.8	11.357 µg/L	11.357 ppb	12:18:06
3	Cd 226.502†	275.9	427.8	0.1110 µg/L	0.1110 ppb	12:18:27
3	Co 228.616†	1609.6	1651.4	69.022 µg/L	69.022 ppb	12:18:27
3	Cr 267.716†	5859.4	6027.8	125.55 µg/L	125.55 ppb	12:18:06
3	Cu 324.752†	70732.2	69734.7	474.21 µg/L	474.21 ppb	12:18:06
3	Mn 257.610†	1680742.1	1715381.9	5590.0 µg/L	5590.0 ppb	12:18:01
3	Mo 202.031†	66.5	72.7	11.072 µg/L	11.072 ppb	12:18:27
3	Ni 231.604†	2075.1	1815.0	94.897 µg/L	94.897 ppb	12:18:27
3	P 214.914†	583.2	568.5	1035.5 µg/L	1035.5 ppb	12:18:27
3	Pb 220.353†	969.3	902.2	225.61 µg/L	225.61 ppb	12:18:27
3	S 181.975 Axial†	322.4	311.6	1295.8 µg/L	1295.8 ppb	12:18:27
3	Sb 206.836†	36.0	13.1	8.8763 µg/L	8.8763 ppb	12:18:27
3	Se 196.026†	-29.7	-48.6	177.91 µg/L	177.91 ppb	12:18:27
3	SiO2†	208748.1	211726.6	43244 µg/L	43244 ppb	12:18:01
3	Si 251.611†	252339.0	257204.9	20101 µg/L	20101 ppb	12:18:01
3	Sn 189.927†	-33.9	-34.9	-23.787 µg/L	-23.787 ppb	12:18:27
3	Ti 334.940†	1583833.6	1616131.5	3730.9 µg/L	3730.9 ppb	12:18:01
3	Tl 190.801†	-62.7	-40.3	20.175 µg/L	20.175 ppb	12:18:27
3	U 409.014†	1699.7	1823.6	140.60 µg/L	140.60 ppb	12:18:01
3	V 292.402†	17464.6	17867.5	192.66 µg/L	192.66 ppb	12:18:06
3	Zn 213.857†	11976.7	11757.6	270.44 µg/L	270.44 ppb	12:18:06

Mean Data: 245688012|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1954798.7	98.463 %	0.4334			0.44%
Sc RADIAL	56990.7	99.5 %	2.58			2.59%
Y 371.029	1398964.7	102.53 %	0.492			0.48%
Ag 328.068†	-1332.8	-2.7826 µg/L	0.45626	-2.7826 ppb	0.45626	16.40%
Al 396.153Radial†	106692.4	74321 µg/L	2803.2	74321 ppb	2803.2	3.77%
As 188.979†	11.8	26.078 µg/L	8.4063	26.078 ppb	8.4063	32.24%
B 249.677†	915.1	-12.712 µg/L	2.1126	-12.712 ppb	2.1126	16.62%
Ba 233.527†	57593.6	1420.9 µg/L	20.95	1420.9 ppb	20.95	1.47%
Be 313.107†	21029.3	11.626 µg/L	0.2359	11.626 ppb	0.2359	2.03%
Ca 317.933Radial†	25250.4	21919 µg/L	522.2	21919 ppb	522.2	2.38%
Cd 226.502†	438.5	0.5181 µg/L	0.37953	0.5181 ppb	0.37953	73.25%
Co 228.616†	1715.7	71.903 µg/L	2.4953	71.903 ppb	2.4953	3.47%
Cr 267.716†	6152.7	128.16 µg/L	2.255	128.16 ppb	2.255	1.76%
Cu 324.752†	70874.3	481.58 µg/L	6.400	481.58 ppb	6.400	1.33%
Fe 238.204 Radial†	12285.5	97056 µg/L	2480.2	97056 ppb	2480.2	2.56%
K 766.490 Radial†	19630.0	13512 µg/L	458.7	13512 ppb	458.7	3.39%
Mg 279.077 IEC†	1808.5	15912 µg/L	435.7	15912 ppb	435.7	2.74%
Mn 257.610†	1733886.2	5650.1 µg/L	61.11	5650.1 ppb	61.11	1.08%
Mo 202.031†	77.1	11.473 µg/L	0.3577	11.473 ppb	0.3577	3.12%
Na 589.592 Radial†	1766.4	549.64 µg/L	15.819	549.64 ppb	15.819	2.88%

Ni 231.604†	1879.0	98.180 µg/L	2.8433	98.180 ppb	2.8433	2.90%
P 214.914†	595.2	1088.6 µg/L	45.93	1088.6 ppb	45.93	4.22%
Pb 220.353†	932.3	233.03 µg/L	6.470	233.03 ppb	6.470	2.78%
S 181.975 Axial†	316.1	1314.7 µg/L	16.37	1314.7 ppb	16.37	1.25%
Sb 206.836†	12.5	8.3095 µg/L	2.11126	8.3095 ppb	2.11126	25.41%
Se 196.026†	-43.5	182.47 µg/L	5.368	182.47 ppb	5.368	2.94%
SiO2†	213976.7	43704 µg/L	455.1	43704 ppb	455.1	1.04%
Si 251.611†	260105.9	20327 µg/L	227.4	20327 ppb	227.4	1.12%
Sn 189.927†	-39.1	-25.487 µg/L	1.5757	-25.487 ppb	1.5757	6.18%
Sr 421.552†	27154.6	267.96 µg/L	9.778	267.96 ppb	9.778	3.65%
Ti 334.940†	1639042.7	3783.9 µg/L	50.49	3783.9 ppb	50.49	1.33%
Tl 190.801†	-39.3	21.904 µg/L	3.5285	21.904 ppb	3.5285	16.11%
U 409.014†	1925.2	149.43 µg/L	8.972	149.43 ppb	8.972	6.00%
V 292.402†	18272.6	196.64 µg/L	3.450	196.64 ppb	3.450	1.75%
Zn 213.857†	11904.3	273.94 µg/L	3.077	273.94 ppb	3.077	1.12%

Sequence No.: 41

Sample ID: 245688013|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 419

Date Collected: 2/12/2010 12:18:36

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688013|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55387.1	55387.1	96.7 %		12:19:09
1	Al 396.153Radial†	30670.6	31740.1	22110 µg/L	22110 ppb	12:19:09
1	Ca 317.933Radial†	11347.8	11547.7	10024 µg/L	10024 ppb	12:19:09
1	Fe 238.204 Radial†	10715.8	11067.3	87431 µg/L	87431 ppb	12:19:09
1	K 766.490 Radial†	6390.0	6441.3	4433.7 µg/L	4433.7 ppb	12:19:09
1	Mg 279.077 IEC†	506.1	512.5	4445.4 µg/L	4445.4 ppb	12:19:29
1	Na 589.592 Radial†	4757.7	4406.0	1371.0 µg/L	1371.0 ppb	12:19:09
1	Sr 421.552†	5838.6	6012.2	59.329 µg/L	59.329 ppb	12:19:09
1	Sc 361.383	1954030.4	1954030.4	98.425 %		12:20:34
1	Y 371.029	1437535.0	1437535.0	105.36 %		12:20:34
1	Ag 328.068†	-1650.9	-1116.3	-2.7313 µg/L	-2.7313 ppb	12:20:39
1	As 188.979†	9.3	7.6	18.474 µg/L	18.474 ppb	12:21:00
1	B 249.677†	722.6	439.9	-27.232 µg/L	-27.232 ppb	12:20:39
1	Ba 233.527†	12883.4	13115.6	323.57 µg/L	323.57 ppb	12:20:39
1	Be 313.107†	5574.3	9263.8	4.9341 µg/L	4.9341 ppb	12:20:39
1	Cd 226.502†	151.6	300.2	-1.9868 µg/L	-1.9868 ppb	12:21:00
1	Co 228.616†	349.8	364.3	12.451 µg/L	12.451 ppb	12:21:00
1	Cr 267.716†	7492.5	7660.9	159.45 µg/L	159.45 ppb	12:20:39
1	Cu 324.752†	7495.5	5171.3	46.307 µg/L	46.307 ppb	12:20:39
1	Mn 257.610†	667359.6	678305.6	2217.0 µg/L	2217.0 ppb	12:20:34
1	Mo 202.031†	128.1	135.0	16.949 µg/L	16.949 ppb	12:21:00
1	Ni 231.604†	2145.9	1877.7	98.068 µg/L	98.068 ppb	12:21:00
1	P 214.914†	350.0	329.0	592.68 µg/L	592.68 ppb	12:21:00
1	Pb 220.353†	502.5	423.6	104.19 µg/L	104.19 ppb	12:21:00
1	S 181.975 Axial†	30.4	13.5	56.118 µg/L	56.118 ppb	12:21:00
1	Sb 206.836†	34.0	10.8	7.5817 µg/L	7.5817 ppb	12:21:00
1	Se 196.026†	-31.5	-50.4	159.78 µg/L	159.78 ppb	12:21:00
1	SiO2†	118098.3	118697.6	24244 µg/L	24244 ppb	12:20:39
1	Si 251.611†	147049.9	149108.4	11653 µg/L	11653 ppb	12:20:34
1	Sn 189.927†	-3.0	-3.3	-10.293 µg/L	-10.293 ppb	12:21:00
1	Ti 334.940†	920096.4	934727.5	2158.2 µg/L	2158.2 ppb	12:20:34
1	Tl 190.801†	-49.3	-26.4	5.9493 µg/L	5.9493 ppb	12:21:00
1	U 409.014†	-2102.8	-2047.4	-187.45 µg/L	-187.45 ppb	12:20:34
1	V 292.402†	3384.1	3484.0	45.797 µg/L	45.797 ppb	12:20:39
1	Zn 213.857†	18541.5	18374.2	428.27 µg/L	428.27 ppb	12:20:39
2	Sc RADIAL	55727.6	55727.6	97.3 %		12:19:35
2	Al 396.153Radial†	30827.2	31707.2	22087 µg/L	22087 ppb	12:19:35
2	Ca 317.933Radial†	11418.8	11548.9	10025 µg/L	10025 ppb	12:19:35
2	Fe 238.204 Radial†	10824.2	11111.0	87776 µg/L	87776 ppb	12:19:35
2	K 766.490 Radial†	6399.2	6410.4	4412.4 µg/L	4412.4 ppb	12:19:35
2	Mg 279.077 IEC†	501.8	504.9	4377.5 µg/L	4377.5 ppb	12:19:55
2	Na 589.592 Radial†	4752.3	4370.4	1359.9 µg/L	1359.9 ppb	12:19:35
2	Sr 421.552†	5882.6	6020.4	59.410 µg/L	59.410 ppb	12:19:35
2	Sc 361.383	1976285.3	1976285.3	99.546 %		12:21:08
2	Y 371.029	1451402.8	1451402.8	106.38 %		12:21:08
2	Ag 328.068†	-1614.0	-1060.3	-2.2962 µg/L	-2.2962 ppb	12:21:13
2	As 188.979†	9.5	7.7	18.772 µg/L	18.772 ppb	12:21:34
2	B 249.677†	711.8	420.8	-28.200 µg/L	-28.200 ppb	12:21:13
2	Ba 233.527†	12852.6	12937.3	319.17 µg/L	319.17 ppb	12:21:13
2	Be 313.107†	5525.5	9151.1	4.8897 µg/L	4.8897 ppb	12:21:13
2	Cd 226.502†	145.8	292.6	-2.2231 µg/L	-2.2231 ppb	12:21:34
2	Co 228.616†	355.4	365.9	12.666 µg/L	12.666 ppb	12:21:34
2	Cr 267.716†	7521.5	7604.3	158.27 µg/L	158.27 ppb	12:21:13
2	Cu 324.752†	7488.8	5078.8	45.744 µg/L	45.744 ppb	12:21:13
2	Mn 257.610†	654308.6	657559.6	2149.6 µg/L	2149.6 ppb	12:21:08
2	Mo 202.031†	132.9	138.3	17.295 µg/L	17.295 ppb	12:21:34
2	Ni 231.604†	2147.4	1854.7	96.882 µg/L	96.882 ppb	12:21:34
2	P 214.914†	350.6	325.5	585.51 µg/L	585.51 ppb	12:21:34
2	Pb 220.353†	509.2	424.6	104.43 µg/L	104.43 ppb	12:21:34

2	S 181.975 Axial†	31.0	13.7	57.026 µg/L	57.026 ppb	12:21:34
2	Sb 206.836†	28.2	4.7	1.8722 µg/L	1.8722 ppb	12:21:34
2	Se 196.026†	-32.9	-51.4	159.39 µg/L	159.39 ppb	12:21:34
2	SiO2†	117884.1	117131.2	23924 µg/L	23924 ppb	12:21:13
2	Si 251.611†	144236.6	144599.8	11301 µg/L	11301 ppb	12:21:08
2	Sn 189.927†	-0.4	-0.7	-9.1875 µg/L	-9.1875 ppb	12:21:34
2	Ti 334.940†	901589.4	905609.0	2091.0 µg/L	2091.0 ppb	12:21:08
2	Tl 190.801†	-45.7	-22.2	10.677 µg/L	10.677 ppb	12:21:34
2	U 409.014†	-2029.0	-1949.2	-179.12 µg/L	-179.12 ppb	12:21:08
2	V 292.402†	3255.8	3316.3	44.152 µg/L	44.152 ppb	12:21:13
2	Zn 213.857†	18578.9	18199.7	424.15 µg/L	424.15 ppb	12:21:13
3	Sc RADIAL	54995.8	54995.8	96.0 %		12:20:01
3	Al 396.153Radial†	30764.5	32063.5	22335 µg/L	22335 ppb	12:20:01
3	Ca 317.933Radial†	11349.4	11632.8	10098 µg/L	10098 ppb	12:20:01
3	Fe 238.204 Radial†	10729.1	11160.0	88164 µg/L	88164 ppb	12:20:01
3	K 766.490 Radial†	6356.6	6453.5	4442.0 µg/L	4442.0 ppb	12:20:01
3	Mg 279.077 IEC†	498.8	508.7	4410.1 µg/L	4410.1 ppb	12:20:21
3	Na 589.592 Radial†	4766.8	4450.6	1384.9 µg/L	1384.9 ppb	12:20:01
3	Sr 421.552†	5860.2	6077.6	59.975 µg/L	59.975 ppb	12:20:01
3	Sc 361.383	1973766.2	1973766.2	99.419 %		12:21:41
3	Y 371.029	1446757.3	1446757.3	106.04 %		12:21:41
3	Ag 328.068†	-1663.4	-1112.1	-2.6675 µg/L	-2.6675 ppb	12:21:47
3	As 188.979†	4.8	3.0	10.117 µg/L	10.117 ppb	12:22:07
3	B 249.677†	730.4	440.4	-27.606 µg/L	-27.606 ppb	12:21:47
3	Ba 233.527†	12459.3	12558.1	309.81 µg/L	309.81 ppb	12:21:47
3	Be 313.107†	5119.9	8750.2	4.6612 µg/L	4.6612 ppb	12:21:47
3	Cd 226.502†	116.1	263.0	-3.0433 µg/L	-3.0433 ppb	12:22:07
3	Co 228.616†	335.7	346.6	11.879 µg/L	11.879 ppb	12:22:07
3	Cr 267.716†	7186.2	7276.7	151.45 µg/L	151.45 ppb	12:21:47
3	Cu 324.752†	7342.6	4941.3	44.890 µg/L	44.890 ppb	12:21:47
3	Mn 257.610†	638489.7	642487.1	2100.6 µg/L	2100.6 ppb	12:21:41
3	Mo 202.031†	120.2	125.7	16.039 µg/L	16.039 ppb	12:22:07
3	Ni 231.604†	2019.9	1729.2	90.409 µg/L	90.409 ppb	12:22:07
3	P 214.914†	338.2	313.6	561.31 µg/L	561.31 ppb	12:22:07
3	Pb 220.353†	493.5	409.5	100.61 µg/L	100.61 ppb	12:22:07
3	S 181.975 Axial†	25.1	7.8	32.493 µg/L	32.493 ppb	12:22:07
3	Sb 206.836†	30.4	6.9	4.0109 µg/L	4.0109 ppb	12:22:07
3	Se 196.026†	-32.9	-51.4	160.31 µg/L	160.31 ppb	12:22:07
3	SiO2†	114375.4	113753.1	23234 µg/L	23234 ppb	12:21:47
3	Si 251.611†	141223.3	141753.8	11078 µg/L	11078 ppb	12:21:41
3	Sn 189.927†	-2.8	-3.1	-10.286 µg/L	-10.286 ppb	12:22:07
3	Ti 334.940†	877124.8	882157.3	2036.8 µg/L	2036.8 ppb	12:21:41
3	Tl 190.801†	-41.4	-17.9	15.663 µg/L	15.663 ppb	12:22:07
3	U 409.014†	-1886.8	-1808.7	-167.20 µg/L	-167.20 ppb	12:21:41
3	V 292.402†	3207.5	3271.9	43.735 µg/L	43.735 ppb	12:21:47
3	Zn 213.857†	18051.4	17692.9	412.21 µg/L	412.21 ppb	12:21:47

## Mean Data: 245688013|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1968027.3	99.130 %	0.6139			0.62%
Sc RADIAL	55370.2	96.7 %	0.64			0.66%
Y 371.029	1445231.7	105.92 %	0.517			0.49%
Ag 328.068†	-1096.2	-2.5650 µg/L	0.23494	-2.5650 ppb	0.23494	9.16%
Al 396.153Radial†	31836.9	22177 µg/L	137.2	22177 ppb	137.2	0.62%
As 188.979†	6.1	15.788 µg/L	4.9136	15.788 ppb	4.9136	31.12%
B 249.677†	433.7	-27.679 µg/L	0.4878	-27.679 ppb	0.4878	1.76%
Ba 233.527†	12870.3	317.52 µg/L	7.024	317.52 ppb	7.024	2.21%
Be 313.107†	9055.0	4.8284 µg/L	0.14645	4.8284 ppb	0.14645	3.03%
Ca 317.933Radial†	11576.5	10049 µg/L	42.4	10049 ppb	42.4	0.42%
Cd 226.502†	285.3	-2.4177 µg/L	0.55445	-2.4177 ppb	0.55445	22.93%
Co 228.616†	358.9	12.332 µg/L	0.4066	12.332 ppb	0.4066	3.30%
Cr 267.716†	7514.0	156.39 µg/L	4.317	156.39 ppb	4.317	2.76%
Cu 324.752†	5063.8	45.647 µg/L	0.7136	45.647 ppb	0.7136	1.56%
Fe 238.204 Radial†	11112.8	87791 µg/L	366.5	87791 ppb	366.5	0.42%
K 766.490 Radial†	6435.0	4429.4 µg/L	15.29	4429.4 ppb	15.29	0.35%
Mg 279.077 IEC†	508.7	4411.0 µg/L	33.96	4411.0 ppb	33.96	0.77%
Mn 257.610†	659450.8	2155.7 µg/L	58.43	2155.7 ppb	58.43	2.71%
Mo 202.031†	133.0	16.761 µg/L	0.6487	16.761 ppb	0.6487	3.87%
Na 589.592 Radial†	4409.0	1371.9 µg/L	12.49	1371.9 ppb	12.49	0.91%

Ni 231.604†	1820.6	95.120 µg/L	4.1224	95.120 ppb	4.1224	4.33%
P 214.914†	322.7	579.83 µg/L	16.441	579.83 ppb	16.441	2.84%
Pb 220.353†	419.2	103.08 µg/L	2.142	103.08 ppb	2.142	2.08%
S 181.975 Axial†	11.7	48.546 µg/L	13.9092	48.546 ppb	13.9092	28.65%
Sb 206.836†	7.5	4.4883 µg/L	2.88453	4.4883 ppb	2.88453	64.27%
Se 196.026†	-51.1	159.83 µg/L	0.460	159.83 ppb	0.460	0.29%
SiO2†	116527.3	23800 µg/L	516.1	23800 ppb	516.1	2.17%
Si 251.611†	145154.0	11344 µg/L	289.8	11344 ppb	289.8	2.55%
Sn 189.927†	-2.4	-9.9222 µg/L	0.63633	-9.9222 ppb	0.63633	6.41%
Sr 421.552†	6036.7	59.571 µg/L	0.3518	59.571 ppb	0.3518	0.59%
Ti 334.940†	907497.9	2095.3 µg/L	60.81	2095.3 ppb	60.81	2.90%
Tl 190.801†	-22.2	10.763 µg/L	4.8575	10.763 ppb	4.8575	45.13%
U 409.014†	-1935.1	-177.92 µg/L	10.180	-177.92 ppb	10.180	5.72%
V 292.402†	3357.4	44.561 µg/L	1.0901	44.561 ppb	1.0901	2.45%
Zn 213.857†	18088.9	421.54 µg/L	8.340	421.54 ppb	8.340	1.98%

Sequence No.: 42

Sample ID: 245688014|948032|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 420

Date Collected: 2/12/2010 12:22:16

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688014|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54754.5	54754.5	95.6 %		12:22:49
1	Al 396.153Radial†	47183.8	49379.7	34397 µg/L	34397 ppb	12:22:49
1	Ca 317.933Radial†	7506.9	7665.5	6654.2 µg/L	6654.2 ppb	12:23:09
1	Fe 238.204 Radial†	6708.4	7003.5	55328 µg/L	55328 ppb	12:23:09
1	K 766.490 Radial†	10112.9	10411.8	7166.6 µg/L	7166.6 ppb	12:22:49
1	Mg 279.077 IEC†	733.3	756.2	6637.6 µg/L	6637.6 ppb	12:23:09
1	Na 589.592 Radial†	1562.4	1120.5	348.66 µg/L	348.66 ppb	12:22:49
1	Sr 421.552†	8719.9	9095.8	89.758 µg/L	89.758 ppb	12:22:49
1	Sc 361.383	1919099.7	1919099.7	96.665 %		12:24:13
1	Y 371.029	1332105.9	1332105.9	97.633 %		12:24:13
1	Ag 328.068†	-1297.2	-780.9	-1.7641 µg/L	-1.7641 ppb	12:24:19
1	As 188.979†	5.5	3.9	10.034 µg/L	10.034 ppb	12:24:39
1	B 249.677†	770.0	502.3	-8.0600 µg/L	-8.0600 ppb	12:24:19
1	Ba 233.527†	16989.0	17601.1	434.33 µg/L	434.33 ppb	12:24:19
1	Be 313.107†	4971.9	8743.8	4.5594 µg/L	4.5594 ppb	12:24:19
1	Cd 226.502†	56.3	204.4	-0.9037 µg/L	-0.9037 ppb	12:24:39
1	Co 228.616†	727.1	761.1	30.613 µg/L	30.613 ppb	12:24:39
1	Cr 267.716†	2976.3	3127.6	65.150 µg/L	65.150 ppb	12:24:39
1	Cu 324.752†	8704.2	6560.3	51.018 µg/L	51.018 ppb	12:24:19
1	Mn 257.610†	586319.7	606811.4	1980.2 µg/L	1980.2 ppb	12:24:13
1	Mo 202.031†	21.0	26.6	4.7891 µg/L	4.7891 ppb	12:24:39
1	Ni 231.604†	1036.2	769.4	40.404 µg/L	40.404 ppb	12:24:39
1	P 214.914†	243.6	225.4	413.07 µg/L	413.07 ppb	12:24:39
1	Pb 220.353†	379.6	305.8	76.367 µg/L	76.367 ppb	12:24:39
1	S 181.975 Axial†	87.9	73.4	305.48 µg/L	305.48 ppb	12:24:39
1	Sb 206.836†	36.3	13.9	11.622 µg/L	11.622 ppb	12:24:39
1	Se 196.026†	-13.1	-31.9	97.606 µg/L	97.606 ppb	12:24:39
1	SiO2†	158487.0	162663.6	33224 µg/L	33224 ppb	12:24:19
1	Si 251.611†	191134.7	197433.4	15430 µg/L	15430 ppb	12:24:13
1	Sn 189.927†	-25.1	-26.3	-16.536 µg/L	-16.536 ppb	12:24:39
1	Ti 334.940†	960333.4	993367.8	2293.4 µg/L	2293.4 ppb	12:24:13
1	Tl 190.801†	-50.6	-28.6	0.1901 µg/L	0.1901 ppb	12:24:39
1	U 409.014†	-517.6	-446.3	-46.177 µg/L	-46.177 ppb	12:24:19
1	V 292.402†	9771.5	10154.3	109.28 µg/L	109.28 ppb	12:24:19
1	Zn 213.857†	6684.9	6451.5	148.84 µg/L	148.84 ppb	12:24:19
2	Sc RADIAL	55416.3	55416.3	96.8 %		12:23:15
2	Al 396.153Radial†	47838.9	49467.3	34459 µg/L	34459 ppb	12:23:15
2	Ca 317.933Radial†	7493.5	7557.9	6560.7 µg/L	6560.7 ppb	12:23:35
2	Fe 238.204 Radial†	6680.3	6890.6	54436 µg/L	54436 ppb	12:23:35
2	K 766.490 Radial†	10262.8	10440.4	7186.3 µg/L	7186.3 ppb	12:23:15
2	Mg 279.077 IEC†	723.8	737.2	6470.2 µg/L	6470.2 ppb	12:23:35
2	Na 589.592 Radial†	1532.6	1070.2	333.02 µg/L	333.02 ppb	12:23:15
2	Sr 421.552†	8810.3	9080.3	89.606 µg/L	89.606 ppb	12:23:15
2	Sc 361.383	1938361.2	1938361.2	97.635 %		12:24:46
2	Y 371.029	1345762.5	1345762.5	98.634 %		12:24:46
2	Ag 328.068†	-1256.0	-725.3	-1.4084 µg/L	-1.4084 ppb	12:24:52
2	As 188.979†	7.8	6.2	14.117 µg/L	14.117 ppb	12:25:12
2	B 249.677†	772.5	497.0	-7.8148 µg/L	-7.8148 ppb	12:24:52
2	Ba 233.527†	16944.9	17381.3	428.90 µg/L	428.90 ppb	12:24:52
2	Be 313.107†	5022.5	8744.5	4.5526 µg/L	4.5526 ppb	12:24:52
2	Cd 226.502†	56.4	203.9	-0.8177 µg/L	-0.8177 ppb	12:25:12
2	Co 228.616†	738.0	764.7	30.741 µg/L	30.741 ppb	12:25:12
2	Cr 267.716†	2938.0	3057.8	63.696 µg/L	63.696 ppb	12:25:12
2	Cu 324.752†	8690.3	6456.5	50.209 µg/L	50.209 ppb	12:24:52
2	Mn 257.610†	597118.7	611844.6	1996.4 µg/L	1996.4 ppb	12:24:46
2	Mo 202.031†	17.9	23.2	4.4073 µg/L	4.4073 ppb	12:25:12
2	Ni 231.604†	1010.1	732.1	38.465 µg/L	38.465 ppb	12:25:12
2	P 214.914†	249.3	228.7	420.54 µg/L	420.54 ppb	12:25:12
2	Pb 220.353†	367.6	289.6	72.351 µg/L	72.351 ppb	12:25:12

2	S 181.975 Axial†	87.8	72.5	301.65 µg/L	301.65 ppb	12:25:12
2	Sb 206.836†	27.1	4.1	2.5516 µg/L	2.5516 ppb	12:25:12
2	Se 196.026†	-18.6	-37.4	87.498 µg/L	87.498 ppb	12:25:12
2	SiO2†	158316.2	160859.5	32855 µg/L	32855 ppb	12:24:52
2	Si 251.611†	194533.8	198950.1	15548 µg/L	15548 ppb	12:24:46
2	Sn 189.927†	-22.5	-23.3	-15.159 µg/L	-15.159 ppb	12:25:12
2	Ti 334.940†	977982.9	1001572.8	2312.4 µg/L	2312.4 ppb	12:24:46
2	Tl 190.801†	-46.9	-24.3	5.9868 µg/L	5.9868 ppb	12:25:12
2	U 409.014†	-549.1	-473.3	-48.348 µg/L	-48.348 ppb	12:24:52
2	V 292.402†	9722.3	10003.5	107.64 µg/L	107.64 ppb	12:24:52
2	Zn 213.857†	6674.3	6371.9	147.02 µg/L	147.02 ppb	12:24:52
3	Sc RADIAL	55862.9	55862.9	97.5 %		12:23:41
3	Al 396.153Radial†	48011.0	49248.6	34306 µg/L	34306 ppb	12:23:41
3	Ca 317.933Radial†	7460.1	7461.8	6477.3 µg/L	6477.3 ppb	12:24:01
3	Fe 238.204 Radial†	6670.1	6825.0	53918 µg/L	53918 ppb	12:24:01
3	K 766.490 Radial†	10287.4	10380.9	7145.3 µg/L	7145.3 ppb	12:23:41
3	Mg 279.077 IEC†	726.8	734.3	6445.0 µg/L	6445.0 ppb	12:24:01
3	Na 589.592 Radial†	1600.7	1127.4	350.81 µg/L	350.81 ppb	12:23:41
3	Sr 421.552†	8881.4	9080.4	89.607 µg/L	89.607 ppb	12:23:41
3	Sc 361.383	1935250.8	1935250.8	97.479 %		12:25:19
3	Y 371.029	1343271.9	1343271.9	98.452 %		12:25:19
3	Ag 328.068†	-1249.8	-721.1	-1.4237 µg/L	-1.4237 ppb	12:25:25
3	As 188.979†	5.5	3.9	9.8759 µg/L	9.8759 ppb	12:25:45
3	B 249.677†	738.3	463.1	-8.9447 µg/L	-8.9447 ppb	12:25:25
3	Ba 233.527†	16601.6	17057.0	420.90 µg/L	420.90 ppb	12:25:25
3	Be 313.107†	4638.4	8358.7	4.3288 µg/L	4.3288 ppb	12:25:25
3	Cd 226.502†	47.9	195.3	-0.9829 µg/L	-0.9829 ppb	12:25:45
3	Co 228.616†	687.4	714.0	28.471 µg/L	28.471 ppb	12:25:45
3	Cr 267.716†	2823.4	2945.0	61.347 µg/L	61.347 ppb	12:25:45
3	Cu 324.752†	8527.0	6303.3	49.125 µg/L	49.125 ppb	12:25:25
3	Mn 257.610†	587229.6	602682.7	1966.6 µg/L	1966.6 ppb	12:25:19
3	Mo 202.031†	13.0	18.2	3.8829 µg/L	3.8829 ppb	12:25:45
3	Ni 231.604†	991.2	714.4	37.547 µg/L	37.547 ppb	12:25:45
3	P 214.914†	233.3	212.7	388.91 µg/L	388.91 ppb	12:25:45
3	Pb 220.353†	366.2	288.8	72.158 µg/L	72.158 ppb	12:25:45
3	S 181.975 Axial†	85.5	70.3	292.39 µg/L	292.39 ppb	12:25:45
3	Sb 206.836†	20.9	-2.3	-3.3176 µg/L	-3.3176 ppb	12:25:45
3	Se 196.026†	-14.6	-33.4	91.864 µg/L	91.864 ppb	12:25:45
3	SiO2†	155429.7	158158.9	32303 µg/L	32303 ppb	12:25:25
3	Si 251.611†	191987.8	196658.4	15369 µg/L	15369 ppb	12:25:19
3	Sn 189.927†	-20.9	-21.7	-14.414 µg/L	-14.414 ppb	12:25:45
3	Ti 334.940†	958762.9	983465.5	2270.5 µg/L	2270.5 ppb	12:25:19
3	Tl 190.801†	-42.6	-20.0	11.133 µg/L	11.133 ppb	12:25:45
3	U 409.014†	-456.4	-379.1	-40.234 µg/L	-40.234 ppb	12:25:25
3	V 292.402†	9488.4	9779.5	105.32 µg/L	105.32 ppb	12:25:25
3	Zn 213.857†	6565.1	6270.8	144.67 µg/L	144.67 ppb	12:25:25

Mean Data: 245688014|948032|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1930903.9	97.260 %		0.5208				0.54%
Sc RADIAL	55344.6	96.6 %		0.97				1.01%
Y 371.029	1340380.1	98.240 %		0.5331				0.54%
Ag 328.068†	-742.5	-1.5321 µg/L		0.20111	-1.5321 ppb		0.20111	13.13%
Al 396.153Radial†	49365.2	34387 µg/L		76.7	34387 ppb		76.7	0.22%
As 188.979†	4.6	11.342 µg/L		2.4044	11.342 ppb		2.4044	21.20%
B 249.677†	487.5	-8.2731 µg/L		0.59433	-8.2731 ppb		0.59433	7.18%
Ba 233.527†	17346.4	428.04 µg/L		6.755	428.04 ppb		6.755	1.58%
Be 313.107†	8615.7	4.4803 µg/L		0.13121	4.4803 ppb		0.13121	2.93%
Ca 317.933Radial†	7561.7	6564.1 µg/L		88.47	6564.1 ppb		88.47	1.35%
Cd 226.502†	201.2	-0.9014 µg/L		0.08263	-0.9014 ppb		0.08263	9.17%
Co 228.616†	746.6	29.942 µg/L		1.2751	29.942 ppb		1.2751	4.26%
Cr 267.716†	3043.4	63.398 µg/L		1.9185	63.398 ppb		1.9185	3.03%
Cu 324.752†	6440.0	50.117 µg/L		0.9497	50.117 ppb		0.9497	1.89%
Fe 238.204 Radial†	6906.4	54561 µg/L		713.3	54561 ppb		713.3	1.31%
K 766.490 Radial†	10411.0	7166.1 µg/L		20.51	7166.1 ppb		20.51	0.29%
Mg 279.077 IEC†	742.6	6517.6 µg/L		104.69	6517.6 ppb		104.69	1.61%
Mn 257.610†	607112.9	1981.0 µg/L		14.95	1981.0 ppb		14.95	0.75%
Mo 202.031†	22.7	4.3598 µg/L		0.45500	4.3598 ppb		0.45500	10.44%
Na 589.592 Radial†	1106.1	344.16 µg/L		9.708	344.16 ppb		9.708	2.82%



Ni 231.604†	738.6	38.805 µg/L	1.4589	38.805 ppb	1.4589	3.76%
P 214.914†	222.3	407.51 µg/L	16.536	407.51 ppb	16.536	4.06%
Pb 220.353†	294.7	73.626 µg/L	2.3765	73.626 ppb	2.3765	3.23%
S 181.975 Axial†	72.1	299.84 µg/L	6.731	299.84 ppb	6.731	2.24%
Sb 206.836†	5.3	3.6186 µg/L	7.52665	3.6186 ppb	7.52665	208.00%
Se 196.026†	-34.2	92.323 µg/L	5.0697	92.323 ppb	5.0697	5.49%
SiO2†	160560.6	32794 µg/L	463.1	32794 ppb	463.1	1.41%
Si 251.611†	197680.6	15449 µg/L	91.1	15449 ppb	91.1	0.59%
Sn 189.927†	-23.8	-15.370 µg/L	1.0766	-15.370 ppb	1.0766	7.00%
Sr 421.552†	9085.5	89.657 µg/L	0.0879	89.657 ppb	0.0879	0.10%
Ti 334.940†	992802.0	2292.1 µg/L	20.94	2292.1 ppb	20.94	0.91%
Tl 190.801†	-24.3	5.7698 µg/L	5.47445	5.7698 ppb	5.47445	94.88%
U 409.014†	-432.9	-44.919 µg/L	4.2005	-44.919 ppb	4.2005	9.35%
V 292.402†	9979.1	107.41 µg/L	1.992	107.41 ppb	1.992	1.85%
Zn 213.857†	6364.7	146.84 µg/L	2.089	146.84 ppb	2.089	1.42%

Sequence No.: 43  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/12/2010 12:25:55  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56070.2	56070.2	97.9 %		12:26:34
1	Al 396.153Radial†	7000.5	7175.1	4987.5 µg/L	4987.5 ppb	12:26:34
1	Ca 317.933Radial†	5550.7	5483.0	4759.6 µg/L	4759.6 ppb	12:26:54
1	Fe 238.204 Radial†	621.0	620.6	4913.5 µg/L	4913.5 ppb	12:26:54
1	K 766.490 Radial†	7386.1	7378.2	5078.6 µg/L	5078.6 ppb	12:26:34
1	Mg 279.077 IEC†	575.8	577.3	5115.9 µg/L	5115.9 ppb	12:26:54
1	Na 589.592 Radial†	31664.2	31830.6	9904.6 µg/L	9904.6 ppb	12:26:34
1	Sr 421.552†	49085.2	50114.2	494.53 µg/L	494.53 ppb	12:26:34
1	Sc 361.383	1930990.1	1930990.1	97.264 %		12:27:57
1	Y 371.029	1317868.6	1317868.6	96.590 %		12:27:57
1	Ag 328.068†	63166.1	65503.9	500.77 µg/L	500.77 ppb	12:28:03
1	As 188.979†	276.2	282.1	517.61 µg/L	517.61 ppb	12:28:23
1	B 249.677†	12003.8	12047.2	494.88 µg/L	494.88 ppb	12:28:03
1	Ba 233.527†	19810.6	20393.8	503.94 µg/L	503.94 ppb	12:28:03
1	Be 313.107†	782061.8	807660.1	501.68 µg/L	501.68 ppb	12:27:57
1	Cd 226.502†	18604.2	19273.7	500.50 µg/L	500.50 ppb	12:28:03
1	Co 228.616†	10584.2	10890.8	505.94 µg/L	505.94 ppb	12:28:03
1	Cr 267.716†	23616.3	24329.2	506.61 µg/L	506.61 ppb	12:28:03
1	Cu 324.752†	76545.9	76254.9	504.31 µg/L	504.31 ppb	12:28:03
1	Mn 257.610†	150901.7	155410.9	505.77 µg/L	505.77 ppb	12:27:57
1	Mo 202.031†	4948.8	5092.8	514.20 µg/L	514.20 ppb	12:28:23
1	Ni 231.604†	9812.3	9785.9	504.72 µg/L	504.72 ppb	12:28:03
1	P 214.914†	1268.3	1277.4	2518.0 µg/L	2518.0 ppb	12:28:23
1	Pb 220.353†	2072.3	2043.7	512.23 µg/L	512.23 ppb	12:28:23
1	S 181.975 Axial†	252.2	241.9	1006.0 µg/L	1006.0 ppb	12:28:23
1	Sb 206.836†	559.5	551.6	512.97 µg/L	512.97 ppb	12:28:23
1	Se 196.026†	360.3	352.1	513.16 µg/L	513.16 ppb	12:28:23
1	SiO2†	26960.7	26428.1	5397.9 µg/L	5397.9 ppb	12:28:03
1	Si 251.611†	31767.0	32365.5	2529.4 µg/L	2529.4 ppb	12:28:03
1	Sn 189.927†	1148.6	1180.6	511.01 µg/L	511.01 ppb	12:28:23
1	Ti 334.940†	212161.2	218033.5	503.14 µg/L	503.14 ppb	12:27:57
1	Tl 190.801†	346.9	380.4	508.34 µg/L	508.34 ppb	12:28:23
1	U 409.014†	5767.5	6018.9	512.57 µg/L	512.57 ppb	12:28:03
1	V 292.402†	48448.9	49857.4	510.19 µg/L	510.19 ppb	12:28:03
1	Zn 213.857†	21293.7	21428.6	501.60 µg/L	501.60 ppb	12:28:03
2	Sc RADIAL	55970.9	55970.9	97.7 %		12:26:59
2	Al 396.153Radial†	7008.7	7196.2	5002.3 µg/L	5002.3 ppb	12:26:59
2	Ca 317.933Radial†	5563.8	5506.6	4780.1 µg/L	4780.1 ppb	12:27:20
2	Fe 238.204 Radial†	624.0	624.9	4947.1 µg/L	4947.1 ppb	12:27:20
2	K 766.490 Radial†	7369.5	7374.6	5076.1 µg/L	5076.1 ppb	12:26:59
2	Mg 279.077 IEC†	574.9	577.5	5117.2 µg/L	5117.2 ppb	12:27:20
2	Na 589.592 Radial†	31701.9	31926.6	9934.4 µg/L	9934.4 ppb	12:26:59
2	Sr 421.552†	49242.6	50364.3	497.00 µg/L	497.00 ppb	12:26:59
2	Sc 361.383	1939571.4	1939571.4	97.696 %		12:28:31
2	Y 371.029	1322345.5	1322345.5	96.918 %		12:28:31
2	Ag 328.068†	62922.1	64966.8	496.67 µg/L	496.67 ppb	12:28:36
2	As 188.979†	271.4	276.0	506.29 µg/L	506.29 ppb	12:28:57
2	B 249.677†	11912.6	11899.2	488.76 µg/L	488.76 ppb	12:28:36
2	Ba 233.527†	19715.6	20206.5	499.31 µg/L	499.31 ppb	12:28:36
2	Be 313.107†	778584.1	800543.0	497.26 µg/L	497.26 ppb	12:28:31
2	Cd 226.502†	18426.6	19007.3	493.57 µg/L	493.57 ppb	12:28:36
2	Co 228.616†	10513.7	10770.5	500.34 µg/L	500.34 ppb	12:28:36
2	Cr 267.716†	23454.3	24055.9	500.92 µg/L	500.92 ppb	12:28:36
2	Cu 324.752†	76223.4	75576.6	499.83 µg/L	499.83 ppb	12:28:36
2	Mn 257.610†	150443.0	154255.1	502.02 µg/L	502.02 ppb	12:28:31
2	Mo 202.031†	4922.5	5043.4	509.22 µg/L	509.22 ppb	12:28:57
2	Ni 231.604†	9781.6	9709.8	500.80 µg/L	500.80 ppb	12:28:36
2	P 214.914†	1254.8	1257.8	2479.0 µg/L	2479.0 ppb	12:28:57
2	Pb 220.353†	2062.4	2024.1	507.32 µg/L	507.32 ppb	12:28:57

2	S 181.975 Axial†	248.1	236.5	983.76 µg/L	983.76 ppb	12:28:57
2	Sb 206.836†	556.0	545.5	507.28 µg/L	507.28 ppb	12:28:57
2	Se 196.026†	360.1	350.2	510.64 µg/L	510.64 ppb	12:28:57
2	SiO2†	26958.7	26303.5	5372.4 µg/L	5372.4 ppb	12:28:36
2	Si 251.611†	31741.8	32195.1	2516.1 µg/L	2516.1 ppb	12:28:36
2	Sn 189.927†	1145.8	1172.5	507.50 µg/L	507.50 ppb	12:28:57
2	Ti 334.940†	211813.8	216712.9	500.09 µg/L	500.09 ppb	12:28:31
2	Tl 190.801†	346.8	378.7	506.05 µg/L	506.05 ppb	12:28:57
2	U 409.014†	5645.0	5867.3	499.63 µg/L	499.63 ppb	12:28:36
2	V 292.402†	48207.0	49389.4	505.40 µg/L	505.40 ppb	12:28:36
2	Zn 213.857†	21208.4	21244.4	497.28 µg/L	497.28 ppb	12:28:36
3	Sc RADIAL	55785.0	55785.0	97.4 %		12:27:25
3	Al 396.153Radial†	7024.2	7235.9	5031.6 µg/L	5031.6 ppb	12:27:25
3	Ca 317.933Radial†	5566.5	5528.2	4798.9 µg/L	4798.9 ppb	12:27:46
3	Fe 238.204 Radial†	627.1	630.2	4988.1 µg/L	4988.1 ppb	12:27:46
3	K 766.490 Radial†	7364.4	7394.5	5089.8 µg/L	5089.8 ppb	12:27:25
3	Mg 279.077 IEC†	574.8	579.3	5132.0 µg/L	5132.0 ppb	12:27:46
3	Na 589.592 Radial†	31676.0	32008.1	9959.8 µg/L	9959.8 ppb	12:27:25
3	Sr 421.552†	49367.2	50660.0	499.92 µg/L	499.92 ppb	12:27:25
3	Sc 361.383	1948523.5	1948523.5	98.147 %		12:29:04
3	Y 371.029	1331328.2	1331328.2	97.576 %		12:29:04
3	Ag 328.068†	60320.5	62020.2	474.05 µg/L	474.05 ppb	12:29:10
3	As 188.979†	241.0	243.7	447.18 µg/L	447.18 ppb	12:29:30
3	B 249.677†	11413.1	11334.3	465.37 µg/L	465.37 ppb	12:29:10
3	Ba 233.527†	18604.7	18982.0	469.03 µg/L	469.03 ppb	12:29:10
3	Be 313.107†	742327.3	759940.3	472.04 µg/L	472.04 ppb	12:29:04
3	Cd 226.502†	17266.7	17738.8	460.59 µg/L	460.59 ppb	12:29:10
3	Co 228.616†	9838.1	10032.7	466.01 µg/L	466.01 ppb	12:29:10
3	Cr 267.716†	21442.6	21895.9	455.95 µg/L	455.95 ppb	12:29:10
3	Cu 324.752†	71271.6	70172.8	464.15 µg/L	464.15 ppb	12:29:10
3	Mn 257.610†	144268.3	147256.3	479.27 µg/L	479.27 ppb	12:29:04
3	Mo 202.031†	4190.4	4274.4	431.60 µg/L	431.60 ppb	12:29:30
3	Ni 231.604†	9170.6	9041.3	466.33 µg/L	466.33 ppb	12:29:10
3	P 214.914†	1108.0	1102.3	2169.1 µg/L	2169.1 ppb	12:29:30
3	Pb 220.353†	1835.0	1782.7	446.70 µg/L	446.70 ppb	12:29:30
3	S 181.975 Axial†	222.2	208.9	868.91 µg/L	868.91 ppb	12:29:30
3	Sb 206.836†	480.4	465.8	432.78 µg/L	432.78 ppb	12:29:30
3	Se 196.026†	324.3	312.0	455.83 µg/L	455.83 ppb	12:29:30
3	SiO2†	25763.6	24959.0	5097.8 µg/L	5097.8 ppb	12:29:10
3	Si 251.611†	30276.7	30553.1	2387.7 µg/L	2387.7 ppb	12:29:10
3	Sn 189.927†	961.6	979.4	423.94 µg/L	423.94 ppb	12:29:30
3	Ti 334.940†	201980.3	205697.7	474.66 µg/L	474.66 ppb	12:29:04
3	Tl 190.801†	314.9	344.6	460.82 µg/L	460.82 ppb	12:29:30
3	U 409.014†	5299.0	5488.2	467.28 µg/L	467.28 ppb	12:29:10
3	V 292.402†	44656.2	45544.8	465.81 µg/L	465.81 ppb	12:29:10
3	Zn 213.857†	19816.1	19726.1	461.70 µg/L	461.70 ppb	12:29:10

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1939695.0	97.703 %	0.4416			0.45%
Sc RADIAL	55942.1	97.7 %	0.25			0.26%
Y 371.029	1323847.4	97.028 %	0.5024			0.52%
Ag 328.068†	64163.6	490.50 µg/L	14.390	490.50 ppb	14.390	2.93%
QC value within limits for Ag 328.068 Recovery = 98.10%						
Al 396.153Radial†	7202.4	5007.2 µg/L	22.45	5007.2 ppb	22.45	0.45%
QC value within limits for Al 396.153Radial Recovery = 100.14%						
As 188.979†	267.3	490.36 µg/L	37.820	490.36 ppb	37.820	7.71%
QC value within limits for As 188.979 Recovery = 98.07%						
B 249.677†	11760.2	483.00 µg/L	15.573	483.00 ppb	15.573	3.22%
QC value within limits for B 249.677 Recovery = 96.60%						
Ba 233.527†	19860.8	490.76 µg/L	18.957	490.76 ppb	18.957	3.86%
QC value within limits for Ba 233.527 Recovery = 98.15%						
Be 313.107†	789381.1	490.33 µg/L	15.991	490.33 ppb	15.991	3.26%
QC value within limits for Be 313.107 Recovery = 98.07%						
Ca 317.933Radial†	5505.9	4779.5 µg/L	19.63	4779.5 ppb	19.63	0.41%
QC value within limits for Ca 317.933Radial Recovery = 95.59%						
Cd 226.502†	18673.3	484.88 µg/L	21.325	484.88 ppb	21.325	4.40%
QC value within limits for Cd 226.502 Recovery = 96.98%						
Co 228.616†	10564.6	490.76 µg/L	21.617	490.76 ppb	21.617	4.40%

QC value within limits for Co 228.616	Recovery = 98.15%			
Cr 267.716†	23427.0	487.82 µg/L	27.755	5.69%
QC value within limits for Cr 267.716	Recovery = 97.56%			
Cu 324.752†	74001.4	489.43 µg/L	22.008	4.50%
QC value within limits for Cu 324.752	Recovery = 97.89%			
Fe 238.204 Radial†	625.2	4949.6 µg/L	37.39	0.76%
QC value within limits for Fe 238.204 Radial	Recovery = 98.99%			
K 766.490 Radial†	7382.5	5081.5 µg/L	7.30	0.14%
QC value within limits for K 766.490 Radial	Recovery = 101.63%			
Mg 279.077 IEC†	578.0	5121.7 µg/L	8.95	0.17%
QC value within limits for Mg 279.077 IEC	Recovery = 102.43%			
Mn 257.610†	152307.4	495.69 µg/L	14.343	2.89%
QC value within limits for Mn 257.610	Recovery = 99.14%			
Mo 202.031†	4803.5	485.01 µg/L	46.318	9.55%
QC value within limits for Mo 202.031	Recovery = 97.00%			
Na 589.592 Radial†	31921.8	9932.9 µg/L	27.65	0.28%
QC value within limits for Na 589.592 Radial	Recovery = 99.33%			
Ni 231.604†	9512.3	490.62 µg/L	21.127	4.31%
QC value within limits for Ni 231.604	Recovery = 98.12%			
P 214.914†	1212.5	2388.7 µg/L	191.15	8.00%
QC value within limits for P 214.914	Recovery = 95.55%			
Pb 220.353†	1950.2	488.75 µg/L	36.498	7.47%
QC value within limits for Pb 220.353	Recovery = 97.75%			
S 181.975 Axial†	229.1	952.89 µg/L	73.580	7.72%
QC value within limits for S 181.975 Axial	Recovery = 95.29%			
Sb 206.836†	521.0	484.34 µg/L	44.747	9.24%
QC value within limits for Sb 206.836	Recovery = 96.87%			
Se 196.026†	338.1	493.21 µg/L	32.395	6.57%
QC value within limits for Se 196.026	Recovery = 98.64%			
SiO2†	25896.8	5289.3 µg/L	166.38	3.15%
QC value within limits for SiO2	Recovery = 98.91%			
Si 251.611†	31704.6	2477.7 µg/L	78.21	3.16%
QC value within limits for Si 251.611	Recovery = 99.11%			
Sn 189.927†	1110.8	480.82 µg/L	49.284	10.25%
QC value within limits for Sn 189.927	Recovery = 96.16%			
Sr 421.552†	50379.5	497.15 µg/L	2.697	0.54%
QC value within limits for Sr 421.552	Recovery = 99.43%			
Ti 334.940†	213481.4	492.63 µg/L	15.641	3.17%
QC value within limits for Ti 334.940	Recovery = 98.53%			
Tl 190.801†	367.9	491.74 µg/L	26.799	5.45%
QC value within limits for Tl 190.801	Recovery = 98.35%			
U 409.014†	5791.5	493.16 µg/L	23.330	4.73%
QC value within limits for U 409.014	Recovery = 98.63%			
V 292.402†	48263.9	493.80 µg/L	24.359	4.93%
QC value within limits for V 292.402	Recovery = 98.76%			
Zn 213.857†	20799.7	486.86 µg/L	21.899	4.50%
QC value within limits for Zn 213.857	Recovery = 97.37%			

All analyte(s) passed QC.

Sequence No.: 44  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/12/2010 12:29:39  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54929.0	54929.0	95.9 %		12:30:12
1	Al 396.153Radial†	2.4	26.7	18.585 µg/L	18.585 ppb	12:30:12
1	Ca 317.933Radial†	195.8	17.3	15.017 µg/L	15.017 ppb	12:30:32
1	Fe 238.204 Radial†	18.6	5.7	44.851 µg/L	44.851 ppb	12:30:32
1	K 766.490 Radial†	107.2	-54.7	-37.642 µg/L	-37.642 ppb	12:30:12
1	Mg 279.077 IEC†	15.1	4.9	43.379 µg/L	43.379 ppb	12:30:32
1	Na 589.592 Radial†	483.3	-9.9	-3.0754 µg/L	-3.0754 ppb	12:30:12
1	Sr 421.552†	35.5	11.6	0.1140 µg/L	0.1140 ppb	12:30:12
1	Sc 361.383	1973353.1	1973353.1	99.398 %		12:31:34
1	Y 371.029	1352273.5	1352273.5	99.111 %		12:31:34
1	Ag 328.068†	-622.1	-64.8	-0.4894 µg/L	-0.4894 ppb	12:31:40
1	As 188.979†	2.6	0.8	1.4926 µg/L	1.4926 ppb	12:32:00
1	B 249.677†	321.3	29.0	1.1732 µg/L	1.1732 ppb	12:32:00
1	Ba 233.527†	-19.3	6.6	0.1630 µg/L	0.1630 ppb	12:32:00
1	Be 313.107†	-3673.3	-95.2	-0.0594 µg/L	-0.0594 ppb	12:31:40
1	Cd 226.502†	-124.7	20.7	0.5318 µg/L	0.5318 ppb	12:32:00
1	Co 228.616†	-11.9	-3.1	-0.1428 µg/L	-0.1428 ppb	12:32:00
1	Cr 267.716†	-30.3	18.1	0.3765 µg/L	0.3765 ppb	12:32:00
1	Cu 324.752†	2492.5	63.4	0.4248 µg/L	0.4248 ppb	12:31:40
1	Mn 257.610†	-88.8	175.3	0.5741 µg/L	0.5741 ppb	12:32:00
1	Mo 202.031†	-1.8	3.1	0.3115 µg/L	0.3115 ppb	12:32:00
1	Ni 231.604†	293.2	-7.5	-0.3860 µg/L	-0.3860 ppb	12:32:00
1	P 214.914†	34.2	7.8	15.532 µg/L	15.532 ppb	12:32:00
1	Pb 220.353†	91.6	5.3	1.3104 µg/L	1.3104 ppb	12:32:00
1	S 181.975 Axial†	11.0	-6.3	-26.360 µg/L	-26.360 ppb	12:32:00
1	Sb 206.836†	26.0	2.5	2.3071 µg/L	2.3071 ppb	12:32:00
1	Se 196.026†	14.6	-3.7	-5.1760 µg/L	-5.1760 ppb	12:32:00
1	SiO2†	1329.3	46.4	9.4705 µg/L	9.4705 ppb	12:31:40
1	Si 251.611†	400.3	107.7	8.4134 µg/L	8.4134 ppb	12:32:00
1	Sn 189.927†	-2.7	-3.0	-1.3023 µg/L	-1.3023 ppb	12:32:00
1	Ti 334.940†	319.2	225.8	0.5181 µg/L	0.5181 ppb	12:31:40
1	Tl 190.801†	-18.7	4.9	6.4934 µg/L	6.4934 ppb	12:32:00
1	U 409.014†	-34.4	54.5	4.6442 µg/L	4.6442 ppb	12:31:40
1	V 292.402†	-51.8	-6.4	-0.0517 µg/L	-0.0517 ppb	12:31:40
1	Zn 213.857†	480.1	18.9	0.4429 µg/L	0.4429 ppb	12:32:00
2	Sc RADIAL	56783.9	56783.9	99.1 %		12:30:38
2	Al 396.153Radial†	14.7	39.1	27.204 µg/L	27.204 ppb	12:30:38
2	Ca 317.933Radial†	197.0	11.8	10.285 µg/L	10.285 ppb	12:30:58
2	Fe 238.204 Radial†	19.8	6.3	49.695 µg/L	49.695 ppb	12:30:58
2	K 766.490 Radial†	159.8	-5.3	-3.6453 µg/L	-3.6453 ppb	12:30:38
2	Mg 279.077 IEC†	10.4	-0.3	-2.9077 µg/L	-2.9077 ppb	12:30:58
2	Na 589.592 Radial†	443.1	-66.9	-20.801 µg/L	-20.801 ppb	12:30:38
2	Sr 421.552†	56.4	31.5	0.3107 µg/L	0.3107 ppb	12:30:38
2	Sc 361.383	1955471.5	1955471.5	98.497 %		12:32:06
2	Y 371.029	1338888.0	1338888.0	98.130 %		12:32:06
2	Ag 328.068†	-597.4	-45.5	-0.3415 µg/L	-0.3415 ppb	12:32:12
2	As 188.979†	-0.9	-2.7	-5.0242 µg/L	-5.0242 ppb	12:32:32
2	B 249.677†	307.6	18.0	0.7169 µg/L	0.7169 ppb	12:32:32
2	Ba 233.527†	-18.0	7.8	0.1916 µg/L	0.1916 ppb	12:32:32
2	Be 313.107†	-3527.0	19.6	0.0120 µg/L	0.0120 ppb	12:32:12
2	Cd 226.502†	-130.4	13.8	0.3519 µg/L	0.3519 ppb	12:32:32
2	Co 228.616†	-0.4	8.5	0.3940 µg/L	0.3940 ppb	12:32:32
2	Cr 267.716†	-26.9	21.3	0.4424 µg/L	0.4424 ppb	12:32:32
2	Cu 324.752†	2515.7	109.9	0.7326 µg/L	0.7326 ppb	12:32:12
2	Mn 257.610†	-52.3	211.6	0.6948 µg/L	0.6948 ppb	12:32:32
2	Mo 202.031†	-3.9	0.9	0.0916 µg/L	0.0916 ppb	12:32:32
2	Ni 231.604†	302.3	4.4	0.2290 µg/L	0.2290 ppb	12:32:32
2	P 214.914†	40.6	14.6	29.153 µg/L	29.153 ppb	12:32:32
2	Pb 220.353†	97.0	11.6	2.8891 µg/L	2.8891 ppb	12:32:32

2	S 181.975 Axial†	17.3	0.1	0.3907 µg/L	0.3907 ppb	12:32:32
2	Sb 206.836†	20.7	-2.6	-2.4229 µg/L	-2.4229 ppb	12:32:32
2	Se 196.026†	18.4	0.3	0.5482 µg/L	0.5482 ppb	12:32:32
2	SiO2†	1339.8	69.3	14.153 µg/L	14.153 ppb	12:32:12
2	Si 251.611†	400.5	111.5	8.7155 µg/L	8.7155 ppb	12:32:32
2	Sn 189.927†	-1.6	-1.9	-0.8318 µg/L	-0.8318 ppb	12:32:32
2	Ti 334.940†	332.4	242.1	0.5594 µg/L	0.5594 ppb	12:32:12
2	Tl 190.801†	-27.8	-4.4	-5.8439 µg/L	-5.8439 ppb	12:32:32
2	U 409.014†	-0.7	88.4	7.5372 µg/L	7.5372 ppb	12:32:12
2	V 292.402†	-33.2	12.0	0.1370 µg/L	0.1370 ppb	12:32:12
2	Zn 213.857†	475.4	18.6	0.4338 µg/L	0.4338 ppb	12:32:32
3	Sc RADIAL	56536.0	56536.0	98.7 %		12:31:04
3	Al 396.153Radial†	6.3	30.6	21.305 µg/L	21.305 ppb	12:31:04
3	Ca 317.933Radial†	189.7	5.3	4.5683 µg/L	4.5683 ppb	12:31:24
3	Fe 238.204 Radial†	20.9	7.4	58.750 µg/L	58.750 ppb	12:31:24
3	K 766.490 Radial†	132.8	-32.0	-22.017 µg/L	-22.017 ppb	12:31:04
3	Mg 279.077 IEC†	17.3	6.7	59.641 µg/L	59.641 ppb	12:31:24
3	Na 589.592 Radial†	436.5	-71.6	-22.279 µg/L	-22.279 ppb	12:31:04
3	Sr 421.552†	4.8	-20.6	-0.2033 µg/L	-0.2033 ppb	12:31:04
3	Sc 361.383	1974101.0	1974101.0	99.436 %		12:32:38
3	Y 371.029	1351748.3	1351748.3	99.073 %		12:32:38
3	Ag 328.068†	-592.2	-34.5	-0.2577 µg/L	-0.2577 ppb	12:32:44
3	As 188.979†	0.5	-1.3	-2.4333 µg/L	-2.4333 ppb	12:33:04
3	B 249.677†	316.1	23.6	0.9438 µg/L	0.9438 ppb	12:33:04
3	Ba 233.527†	-10.7	15.3	0.3778 µg/L	0.3778 ppb	12:33:04
3	Be 313.107†	-2972.4	611.1	0.3793 µg/L	0.3793 ppb	12:32:44
3	Cd 226.502†	-118.9	26.6	0.6843 µg/L	0.6843 ppb	12:33:04
3	Co 228.616†	-0.4	8.5	0.3924 µg/L	0.3924 ppb	12:33:04
3	Cr 267.716†	-13.0	35.5	0.7391 µg/L	0.7391 ppb	12:33:04
3	Cu 324.752†	2510.7	80.8	0.5419 µg/L	0.5419 ppb	12:32:44
3	Mn 257.610†	0.0	264.7	0.8661 µg/L	0.8661 ppb	12:33:04
3	Mo 202.031†	-0.6	4.2	0.4254 µg/L	0.4254 ppb	12:33:04
3	Ni 231.604†	304.8	4.0	0.2090 µg/L	0.2090 ppb	12:33:04
3	P 214.914†	32.8	6.3	12.612 µg/L	12.612 ppb	12:33:04
3	Pb 220.353†	98.0	11.6	2.9111 µg/L	2.9111 ppb	12:33:04
3	S 181.975 Axial†	16.9	-0.4	-1.7978 µg/L	-1.7978 ppb	12:33:04
3	Sb 206.836†	27.3	3.7	3.4659 µg/L	3.4659 ppb	12:33:04
3	Se 196.026†	14.3	-4.0	-5.6354 µg/L	-5.6354 ppb	12:33:04
3	SiO2†	1371.4	88.2	18.023 µg/L	18.023 ppb	12:32:44
3	Si 251.611†	433.0	140.4	10.972 µg/L	10.972 ppb	12:33:04
3	Sn 189.927†	-2.0	-2.3	-0.9867 µg/L	-0.9867 ppb	12:33:04
3	Ti 334.940†	520.3	427.9	0.9834 µg/L	0.9834 ppb	12:32:44
3	Tl 190.801†	-25.4	-1.8	-2.4110 µg/L	-2.4110 ppb	12:33:04
3	U 409.014†	-82.8	5.9	0.4916 µg/L	0.4916 ppb	12:32:44
3	V 292.402†	-40.8	4.6	0.0594 µg/L	0.0594 ppb	12:32:44
3	Zn 213.857†	502.5	41.3	0.9665 µg/L	0.9665 ppb	12:33:04

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1967641.9	99.110 %	0.5312			0.54%
Sc RADIAL	56083.0	97.9 %	1.76			1.80%
Y 371.029	1347636.6	98.772 %	0.5556			0.56%
Ag 328.068†	-48.3	-0.3629 µg/L	0.11729	-0.3629 ppb	0.11729	32.32%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	32.1	22.365 µg/L	4.4059	22.365 ppb	4.4059	19.70%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.1	-1.9883 µg/L	3.28110	-1.9883 ppb	3.28110	165.02%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	23.5	0.9446 µg/L	0.22817	0.9446 ppb	0.22817	24.15%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.9	0.2441 µg/L	0.11663	0.2441 ppb	0.11663	47.77%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	178.5	0.1106 µg/L	0.23541	0.1106 ppb	0.23541	212.76%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	11.5	9.9565 µg/L	5.23182	9.9565 ppb	5.23182	52.55%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	20.3	0.5227 µg/L	0.16640	0.5227 ppb	0.16640	31.84%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	4.6	0.2146 µg/L	0.30945	0.2146 ppb	0.30945	144.23%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated				
	25.0	0.5193 µg/L	0.19319	0.5193 ppb	0.19319	37.20%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated				
	84.7	0.5664 µg/L	0.15533	0.5664 ppb	0.15533	27.42%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated				
	6.5	51.099 µg/L	7.0549	51.099 ppb	7.0549	13.81%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated				
	-30.7	-21.102 µg/L	17.0171	-21.102 ppb	17.0171	80.64%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated				
	3.8	33.371 µg/L	32.4534	33.371 ppb	32.4534	97.25%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated				
	217.2	0.7117 µg/L	0.14670	0.7117 ppb	0.14670	20.61%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated				
	2.7	0.2762 µg/L	0.16970	0.2762 ppb	0.16970	61.45%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated				
	-49.4	-15.385 µg/L	10.6861	-15.385 ppb	10.6861	69.46%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated				
	0.3	0.0173 µg/L	0.34946	0.0173 ppb	0.34946	>999.9%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated				
	9.6	19.099 µg/L	8.8285	19.099 ppb	8.8285	46.22%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated				
	9.5	2.3702 µg/L	0.91788	2.3702 ppb	0.91788	38.73%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated				
	-2.2	-9.2559 µg/L	14.85339	-9.2559 ppb	14.85339	160.48%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated				
	1.2	1.1167 µg/L	3.11969	1.1167 ppb	3.11969	279.37%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated				
	-2.5	-3.4211 µg/L	3.44517	-3.4211 ppb	3.44517	100.70%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated				
	68.0	13.882 µg/L	4.2829	13.882 ppb	4.2829	30.85%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated				
	119.9	9.3671 µg/L	1.39849	9.3671 ppb	1.39849	14.93%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated				
	-2.4	-1.0403 µg/L	0.23977	-1.0403 ppb	0.23977	23.05%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated				
	7.5	0.0738 µg/L	0.25935	0.0738 ppb	0.25935	351.47%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated				
	298.6	0.6870 µg/L	0.25754	0.6870 ppb	0.25754	37.49%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated				
	-0.5	-0.5872 µg/L	6.36765	-0.5872 ppb	6.36765	>999.9%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated				
	49.6	4.2244 µg/L	3.54152	4.2244 ppb	3.54152	83.84%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated				
	3.4	0.0482 µg/L	0.09486	0.0482 ppb	0.09486	196.78%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated				
	26.3	0.6144 µg/L	0.30497	0.6144 ppb	0.30497	49.64%
	QC value within limits for Zn 213.857	Recovery = Not calculated				

All analyte(s) passed QC.

=====  
Analysis Begun

Start Time: 2/19/2010 16:24:40

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\021910E.sif

Batch ID:

Results Data Set: 021910A

Results Library: c:\pe\optimal\Results\Results.mdb  
=====

## Method Loaded

Method Name: Gen Eng fast\_new Si

Method Last Saved: 2/19/2010 15:19:26

IEC File: 011510.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

  
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Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 2/19/2010 16:24:43

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:  
=====

## Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Analysis Time
1	Sc RADIAL	56379.0	56379.0	99.8 %		16:25:17
1	Al 396.153Radial†	16.2	16.2	[0.00] µg/L		16:25:17
1	Ca 317.933Radial†	214.7	215.2	[0.00] µg/L		16:25:38
1	Fe 238.204 Radial†	18.4	18.4	[0.00] µg/L		16:25:38



1	K 766.490 Radial†	170.1	170.5	[0.00]	µg/L	16:25:17
1	Mg 279.077 IEC†	12.4	12.5	[0.00]	µg/L	16:25:38
1	Na 589.592 Radial†	471.3	472.3	[0.00]	µg/L	16:25:17
1	Sr 421.552†	12.0	12.0	[0.00]	µg/L	16:25:17
1	Sc 361.383	1972868.2	1972868.2	100.50	%	16:26:40
1	Y 371.029	1358545.8	1358545.8	100.43	%	16:26:40
1	Ag 328.068†	-377.9	-376.0	[0.00]	µg/L	16:26:45
1	As 188.979†	2.0	2.0	[0.00]	µg/L	16:27:06
1	B 249.677†	379.3	377.5	[0.00]	µg/L	16:27:06
1	Ba 233.527†	-13.3	-13.3	[0.00]	µg/L	16:27:06
1	Be 313.107†	-2914.6	-2900.2	[0.00]	µg/L	16:26:45
1	Cd 226.502†	-140.3	-139.6	[0.00]	µg/L	16:27:06
1	Co 228.616†	-4.5	-4.5	[0.00]	µg/L	16:27:06
1	Cr 267.716†	-50.8	-50.6	[0.00]	µg/L	16:26:45
1	Cu 324.752†	2545.0	2532.4	[0.00]	µg/L	16:26:45
1	Mn 257.610†	-255.0	-253.7	[0.00]	µg/L	16:27:06
1	Mo 202.031†	-2.4	-2.3	[0.00]	µg/L	16:27:06
1	Ni 231.604†	320.7	319.1	[0.00]	µg/L	16:27:06
1	P 214.914†	15.8	15.8	[0.00]	µg/L	16:27:06
1	Pb 220.353†	88.6	88.2	[0.00]	µg/L	16:27:06
1	S 181.975 Axial†	19.1	19.1	[0.00]	µg/L	16:27:06
1	Sb 206.836†	17.4	17.3	[0.00]	µg/L	16:27:06
1	Se 196.026†	20.3	20.2	[0.00]	µg/L	16:27:06
1	SiO2†	1396.5	1389.6	[0.00]	µg/L	16:26:45
1	Si 251.611†	308.1	306.6	[0.00]	µg/L	16:27:06
1	Sn 189.927†	0.6	0.6	[0.00]	µg/L	16:27:06
1	Ti 334.940†	185.3	184.3	[0.00]	µg/L	16:26:45
1	Tl 190.801†	-23.5	-23.3	[0.00]	µg/L	16:27:06
1	U 409.014†	-92.6	-92.1	[0.00]	µg/L	16:26:45
1	V 292.402†	-67.1	-66.8	[0.00]	µg/L	16:26:45
1	Zn 213.857†	537.3	534.6	[0.00]	µg/L	16:27:06
2	Sc RADIAL	56755.6	56755.6	100	%	16:25:43
2	Al 396.153Radial†	-1.8	-1.8	[0.00]	µg/L	16:25:43
2	Ca 317.933Radial†	215.5	214.5	[0.00]	µg/L	16:26:04
2	Fe 238.204 Radial†	16.5	16.4	[0.00]	µg/L	16:26:04
2	K 766.490 Radial†	182.5	181.6	[0.00]	µg/L	16:25:43
2	Mg 279.077 IEC†	11.4	11.3	[0.00]	µg/L	16:26:04
2	Na 589.592 Radial†	457.5	455.4	[0.00]	µg/L	16:25:43
2	Sr 421.552†	48.2	48.0	[0.00]	µg/L	16:25:43
2	Sc 361.383	1966863.7	1966863.7	100.19	%	16:27:12
2	Y 371.029	1355430.0	1355430.0	100.20	%	16:27:12
2	Ag 328.068†	-456.1	-455.2	[0.00]	µg/L	16:27:17
2	As 188.979†	1.0	0.9	[0.00]	µg/L	16:27:38
2	B 249.677†	393.1	392.3	[0.00]	µg/L	16:27:38
2	Ba 233.527†	-22.9	-22.8	[0.00]	µg/L	16:27:38
2	Be 313.107†	-2829.8	-2824.4	[0.00]	µg/L	16:27:17
2	Cd 226.502†	-143.7	-143.4	[0.00]	µg/L	16:27:38
2	Co 228.616†	5.2	5.2	[0.00]	µg/L	16:27:38
2	Cr 267.716†	-56.7	-56.6	[0.00]	µg/L	16:27:17
2	Cu 324.752†	2525.9	2521.0	[0.00]	µg/L	16:27:17
2	Mn 257.610†	-246.3	-245.8	[0.00]	µg/L	16:27:38
2	Mo 202.031†	-7.2	-7.2	[0.00]	µg/L	16:27:38
2	Ni 231.604†	311.9	311.3	[0.00]	µg/L	16:27:38
2	P 214.914†	14.8	14.8	[0.00]	µg/L	16:27:38
2	Pb 220.353†	93.7	93.5	[0.00]	µg/L	16:27:38
2	S 181.975 Axial†	14.7	14.7	[0.00]	µg/L	16:27:38
2	Sb 206.836†	27.4	27.4	[0.00]	µg/L	16:27:38
2	Se 196.026†	17.0	16.9	[0.00]	µg/L	16:27:38
2	SiO2†	1365.2	1362.6	[0.00]	µg/L	16:27:17
2	Si 251.611†	311.7	311.1	[0.00]	µg/L	16:27:38
2	Sn 189.927†	0.1	0.1	[0.00]	µg/L	16:27:38
2	Ti 334.940†	147.4	147.1	[0.00]	µg/L	16:27:17
2	Tl 190.801†	-23.8	-23.8	[0.00]	µg/L	16:27:38
2	U 409.014†	-39.1	-39.0	[0.00]	µg/L	16:27:17
2	V 292.402†	-66.7	-66.6	[0.00]	µg/L	16:27:17
2	Zn 213.857†	535.6	534.6	[0.00]	µg/L	16:27:38
3	Sc RADIAL	56352.2	56352.2	99.7	%	16:26:09
3	Al 396.153Radial†	7.7	7.7	[0.00]	µg/L	16:26:09
3	Ca 317.933Radial†	203.6	204.1	[0.00]	µg/L	16:26:29
3	Fe 238.204 Radial†	14.9	14.9	[0.00]	µg/L	16:26:29
3	K 766.490 Radial†	142.5	142.8	[0.00]	µg/L	16:26:09

3	Mg 279.077 IEC†	14.6	14.7	[0.00] µg/L	16:26:29
3	Na 589.592 Radial†	487.6	488.9	[0.00] µg/L	16:26:09
3	Sr 421.552†	26.3	26.4	[0.00] µg/L	16:26:09
3	Sc 361.383	1949627.5	1949627.5	99.313 %	16:27:44
3	Y 371.029	1344291.5	1344291.5	99.374 %	16:27:44
3	Ag 328.068†	-371.1	-373.6	[0.00] µg/L	16:27:50
3	As 188.979†	-4.3	-4.4	[0.00] µg/L	16:28:10
3	B 249.677†	380.0	382.6	[0.00] µg/L	16:28:10
3	Ba 233.527†	-15.0	-15.1	[0.00] µg/L	16:28:10
3	Be 313.107†	-2823.0	-2842.5	[0.00] µg/L	16:27:50
3	Cd 226.502†	-141.0	-142.0	[0.00] µg/L	16:28:10
3	Co 228.616†	5.0	5.1	[0.00] µg/L	16:28:10
3	Cr 267.716†	-43.6	-43.9	[0.00] µg/L	16:27:50
3	Cu 324.752†	2560.1	2577.8	[0.00] µg/L	16:27:50
3	Mn 257.610†	-266.7	-268.5	[0.00] µg/L	16:28:10
3	Mo 202.031†	-6.5	-6.5	[0.00] µg/L	16:28:10
3	Ni 231.604†	304.5	306.6	[0.00] µg/L	16:28:10
3	P 214.914†	15.4	15.5	[0.00] µg/L	16:28:10
3	Pb 220.353†	90.5	91.1	[0.00] µg/L	16:28:10
3	S 181.975 Axial†	22.9	23.0	[0.00] µg/L	16:28:10
3	Sb 206.836†	22.7	22.8	[0.00] µg/L	16:28:10
3	Se 196.026†	20.7	20.8	[0.00] µg/L	16:28:10
3	SiO2†	1412.7	1422.5	[0.00] µg/L	16:27:50
3	Si 251.611†	312.1	314.3	[0.00] µg/L	16:28:10
3	Sn 189.927†	0.4	0.4	[0.00] µg/L	16:28:10
3	Ti 334.940†	192.3	193.6	[0.00] µg/L	16:27:50
3	Tl 190.801†	-19.9	-20.0	[0.00] µg/L	16:28:10
3	U 409.014†	-99.5	-100.1	[0.00] µg/L	16:27:50
3	V 292.402†	-0.9	-0.9	[0.00] µg/L	16:27:50
3	Zn 213.857†	530.3	534.0	[0.00] µg/L	16:28:10

## Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1963119.8	12064.22	0.61%	100.00 %
Sc RADIAL	56495.6	225.58	0.40%	100 %
Y 371.029	1352755.8	7494.01	0.55%	100.00 %
Ag 328.068†	-401.6	46.42	11.56%	[0.00] µg/L
Al 396.153Radial†	7.4	9.00	122.22%	[0.00] µg/L
As 188.979†	-0.5	3.42	746.44%	[0.00] µg/L
B 249.677†	384.1	7.56	1.97%	[0.00] µg/L
Ba 233.527†	-17.1	5.08	29.78%	[0.00] µg/L
Be 313.107†	-2855.7	39.56	1.39%	[0.00] µg/L
Ca 317.933Radial†	211.3	6.18	2.93%	[0.00] µg/L
Cd 226.502†	-141.7	1.91	1.35%	[0.00] µg/L
Co 228.616†	1.9	5.56	287.58%	[0.00] µg/L
Cr 267.716†	-50.4	6.37	12.65%	[0.00] µg/L
Cu 324.752†	2543.7	30.02	1.18%	[0.00] µg/L
Fe 238.204 Radial†	16.6	1.77	10.70%	[0.00] µg/L
K 766.490 Radial†	165.0	19.97	12.10%	[0.00] µg/L
Mg 279.077 IEC†	12.8	1.69	13.22%	[0.00] µg/L
Mn 257.610†	-256.0	11.55	4.51%	[0.00] µg/L
Mo 202.031†	-5.3	2.62	48.99%	[0.00] µg/L
Na 589.592 Radial†	472.2	16.73	3.54%	[0.00] µg/L
Ni 231.604†	312.3	6.29	2.01%	[0.00] µg/L
P 214.914†	15.3	0.52	3.38%	[0.00] µg/L
Pb 220.353†	90.9	2.66	2.92%	[0.00] µg/L
S 181.975 Axial†	18.9	4.16	21.98%	[0.00] µg/L
Sb 206.836†	22.5	5.03	22.34%	[0.00] µg/L
Se 196.026†	19.3	2.09	10.80%	[0.00] µg/L
SiO2†	1391.6	29.99	2.16%	[0.00] µg/L
Si 251.611†	310.6	3.86	1.24%	[0.00] µg/L
Sn 189.927†	0.4	0.26	71.28%	[0.00] µg/L
Sr 421.552†	28.8	18.10	62.83%	[0.00] µg/L
Ti 334.940†	175.0	24.62	14.06%	[0.00] µg/L
Tl 190.801†	-22.4	2.06	9.20%	[0.00] µg/L
U 409.014†	-77.1	33.23	43.11%	[0.00] µg/L
V 292.402†	-44.8	37.98	84.87%	[0.00] µg/L
Zn 213.857†	534.4	0.37	0.07%	[0.00] µg/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 2/19/2010 16:28:19

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	56547.7	56547.7	100 %	16:28:54
1	K 766.490 Radial†	1729.4	1562.9	[1000] µg/L	16:28:54
1	Sr 421.552†	10915.2	10876.4	[100] µg/L	16:28:54
1	Sc 361.383	1958657.5	1958657.5	99.773 %	16:29:16
1	Y 371.029	1350548.9	1350548.9	99.837 %	16:29:16
1	Ag 328.068†	13553.9	13986.4	[100] µg/L	16:29:22
1	As 188.979†	59.6	60.2	[100] µg/L	16:29:42
1	B 249.677†	2836.9	2459.2	[100] µg/L	16:29:22
1	Ba 233.527†	4355.0	4382.0	[100] µg/L	16:29:22
1	Be 313.107†	171130.8	174376.3	[100] µg/L	16:29:16
1	Cd 226.502†	4124.2	4275.2	[100] µg/L	16:29:22
1	Co 228.616†	2298.0	2301.3	[100] µg/L	16:29:42
1	Cr 267.716†	5258.9	5321.2	[100] µg/L	16:29:22
1	Cu 324.752†	18781.5	16280.6	[100] µg/L	16:29:22
1	Mn 257.610†	33738.0	34070.9	[100] µg/L	16:29:22
1	Mo 202.031†	1103.1	1111.0	[100] µg/L	16:29:42
1	Ni 231.604†	2464.7	2158.0	[100] µg/L	16:29:22
1	P 214.914†	279.5	264.8	[500] µg/L	16:29:42
1	Pb 220.353†	532.5	442.7	[100] µg/L	16:29:42
1	S 181.975 Axial†	65.4	46.6	[200] µg/L	16:29:42
1	Sb 206.836†	134.3	112.1	[100] µg/L	16:29:42
1	Se 196.026†	91.1	72.0	[100] µg/L	16:29:42
1	SiO2†	6958.0	5582.3	[1069.5] µg/L	16:29:22
1	Si 251.611†	7026.5	6731.9	[500] µg/L	16:29:22
1	Sn 189.927†	255.8	256.0	[100] µg/L	16:29:42
1	Ti 334.940†	46558.0	46489.0	[100] µg/L	16:29:22
1	Tl 190.801†	54.5	77.1	[100] µg/L	16:29:42
1	U 409.014†	1252.7	1332.6	[100] µg/L	16:29:22
1	V 292.402†	10759.4	10828.7	[100] µg/L	16:29:22
1	Zn 213.857†	5084.1	4561.2	[100] µg/L	16:29:22
2	Sc RADIAL	56202.9	56202.9	99.5 %	16:29:00
2	K 766.490 Radial†	1727.4	1571.4	[1000] µg/L	16:29:00
2	Sr 421.552†	10846.6	10874.3	[100] µg/L	16:29:00
2	Sc 361.383	1969774.0	1969774.0	100.34 %	16:29:48
2	Y 371.029	1358589.1	1358589.1	100.43 %	16:29:48
2	Ag 328.068†	13626.3	13981.9	[100] µg/L	16:29:54
2	As 188.979†	59.0	59.2	[100] µg/L	16:30:15
2	B 249.677†	2870.2	2476.3	[100] µg/L	16:29:54
2	Ba 233.527†	4352.8	4355.2	[100] µg/L	16:29:54
2	Be 313.107†	172207.8	174481.8	[100] µg/L	16:29:48
2	Cd 226.502†	4144.1	4271.8	[100] µg/L	16:29:54
2	Co 228.616†	2299.6	2289.9	[100] µg/L	16:30:15
2	Cr 267.716†	5267.7	5300.2	[100] µg/L	16:29:54
2	Cu 324.752†	18798.4	16191.1	[100] µg/L	16:29:54
2	Mn 257.610†	33750.8	33892.8	[100] µg/L	16:29:54
2	Mo 202.031†	1093.5	1095.1	[100] µg/L	16:30:15
2	Ni 231.604†	2441.8	2121.3	[100] µg/L	16:29:54
2	P 214.914†	278.5	262.2	[500] µg/L	16:30:15
2	Pb 220.353†	534.1	441.4	[100] µg/L	16:30:15
2	S 181.975 Axial†	68.1	49.0	[200] µg/L	16:30:15
2	Sb 206.836†	141.3	118.3	[100] µg/L	16:30:15
2	Se 196.026†	84.6	65.0	[100] µg/L	16:30:15
2	SiO2†	6950.3	5535.3	[1069.5] µg/L	16:29:54
2	Si 251.611†	7046.5	6712.0	[500] µg/L	16:29:54
2	Sn 189.927†	257.8	256.5	[100] µg/L	16:30:15
2	Ti 334.940†	46408.5	46076.6	[100] µg/L	16:29:54
2	Tl 190.801†	53.9	76.1	[100] µg/L	16:30:15
2	U 409.014†	1326.1	1398.7	[100] µg/L	16:29:54
2	V 292.402†	10708.8	10717.4	[100] µg/L	16:29:54

2	Zn 213.857†	5067.8	4516.3	[100] µg/L	16:29:54
3	Sc RADIAL	55976.7	55976.7	99.1 %	16:29:05
3	K 766.490 Radial†	1714.6	1565.5	[1000] µg/L	16:29:05
3	Sr 421.552†	10778.8	10849.9	[100] µg/L	16:29:05
3	Sc 361.383	1959694.8	1959694.8	99.826 %	16:30:21
3	Y 371.029	1350466.2	1350466.2	99.831 %	16:30:21
3	Ag 328.068†	13514.1	13939.3	[100] µg/L	16:30:27
3	As 188.979†	60.6	61.1	[100] µg/L	16:30:47
3	B 249.677†	2823.5	2444.3	[100] µg/L	16:30:27
3	Ba 233.527†	4346.0	4370.6	[100] µg/L	16:30:27
3	Be 313.107†	170786.2	173940.4	[100] µg/L	16:30:21
3	Cd 226.502†	4105.4	4254.3	[100] µg/L	16:30:27
3	Co 228.616†	2321.1	2323.2	[100] µg/L	16:30:47
3	Cr 267.716†	5182.0	5241.4	[100] µg/L	16:30:27
3	Cu 324.752†	18775.8	16264.9	[100] µg/L	16:30:27
3	Mn 257.610†	33438.9	33753.4	[100] µg/L	16:30:27
3	Mo 202.031†	1103.0	1110.3	[100] µg/L	16:30:47
3	Ni 231.604†	2473.4	2165.4	[100] µg/L	16:30:27
3	P 214.914†	282.4	267.5	[500] µg/L	16:30:47
3	Pb 220.353†	529.2	439.2	[100] µg/L	16:30:47
3	S 181.975 Axial†	72.1	53.3	[200] µg/L	16:30:47
3	Sb 206.836†	136.5	114.2	[100] µg/L	16:30:47
3	Se 196.026†	86.4	67.3	[100] µg/L	16:30:47
3	SiO2†	6918.8	5539.3	[1069.5] µg/L	16:30:27
3	Si 251.611†	6976.1	6677.7	[500] µg/L	16:30:27
3	Sn 189.927†	259.9	260.0	[100] µg/L	16:30:47
3	Ti 334.940†	46135.2	46040.8	[100] µg/L	16:30:27
3	Tl 190.801†	63.1	85.5	[100] µg/L	16:30:47
3	U 409.014†	1279.4	1358.7	[100] µg/L	16:30:27
3	V 292.402†	10662.6	10726.0	[100] µg/L	16:30:27
3	Zn 213.857†	5060.1	4534.5	[100] µg/L	16:30:27

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Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1962708.8	6140.62	0.31%	99.979 %	
Sc RADIAL	56242.4	287.56	0.51%	99.6 %	
Y 371.029	1353201.4	4666.07	0.34%	100.03 %	
Ag 328.068†	13969.2	25.98	0.19%	[100] µg/L	
As 188.979†	60.2	0.95	1.58%	[100] µg/L	
B 249.677†	2459.9	16.02	0.65%	[100] µg/L	
Ba 233.527†	4369.3	13.48	0.31%	[100] µg/L	
Be 313.107†	174266.2	287.04	0.16%	[100] µg/L	
Cd 226.502†	4267.1	11.24	0.26%	[100] µg/L	
Co 228.616†	2304.8	16.95	0.74%	[100] µg/L	
Cr 267.716†	5287.6	41.38	0.78%	[100] µg/L	
Cu 324.752†	16245.5	47.76	0.29%	[100] µg/L	
K 766.490 Radial†	1566.6	4.37	0.28%	[1000] µg/L	
Mn 257.610†	33905.7	159.14	0.47%	[100] µg/L	
Mo 202.031†	1105.5	8.97	0.81%	[100] µg/L	
Ni 231.604†	2148.2	23.63	1.10%	[100] µg/L	
P 214.914†	264.9	2.64	1.00%	[500] µg/L	
Pb 220.353†	441.1	1.78	0.40%	[100] µg/L	
S 181.975 Axial†	49.6	3.39	6.83%	[200] µg/L	
Sb 206.836†	114.9	3.15	2.74%	[100] µg/L	
Se 196.026†	68.1	3.58	5.25%	[100] µg/L	
SiO2†	5552.3	26.07	0.47%	[1069.5] µg/L	
Si 251.611†	6707.2	27.43	0.41%	[500] µg/L	
Sn 189.927†	257.5	2.17	0.84%	[100] µg/L	
Sr 421.552†	10866.8	14.72	0.14%	[100] µg/L	
Ti 334.940†	46202.1	249.08	0.54%	[100] µg/L	
Tl 190.801†	79.6	5.19	6.52%	[100] µg/L	
U 409.014†	1363.3	33.25	2.44%	[100] µg/L	
V 292.402†	10757.4	61.94	0.58%	[100] µg/L	
Zn 213.857†	4537.3	22.62	0.50%	[100] µg/L	

Sequence No.: 3  
 Sample ID: S0.5  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 2/19/2010 16:30:56  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	56525.4	56525.4	100 %	16:31:29
1	Al 396.153Radial†	7453.5	7442.2	[5000] µg/L	16:31:29
1	Ca 317.933Radial†	6221.9	6007.4	[5000] µg/L	16:31:49
1	K 766.490 Radial†	7933.1	7763.9	[5000] µg/L	16:31:29
1	Mg 279.077 IEC†	599.2	586.0	[5000] µg/L	16:31:49
1	Sr 421.552†	54754.2	54696.6	[500] µg/L	16:31:29
1	Sc 361.383	1991566.8	1991566.8	101.45 %	16:32:53
1	Y 371.029	1367918.2	1367918.2	101.12 %	16:32:53
1	Ag 328.068†	68503.2	67926.3	[500] µg/L	16:32:58
1	As 188.979†	299.0	295.2	[500] µg/L	16:33:19
1	B 249.677†	12863.6	12295.7	[500] µg/L	16:32:58
1	Ba 233.527†	21495.8	21205.8	[500] µg/L	16:32:58
1	Be 313.107†	866518.5	856997.1	[500] µg/L	16:32:53
1	Cd 226.502†	20677.7	20524.0	[500] µg/L	16:32:58
1	Co 228.616†	11538.9	11372.2	[500] µg/L	16:32:58
1	Cr 267.716†	25928.5	25608.5	[500] µg/L	16:32:58
1	Cu 324.752†	81773.4	78061.6	[500] µg/L	16:32:58
1	Mn 257.610†	167098.7	164967.9	[500] µg/L	16:32:53
1	Mo 202.031†	5532.6	5459.0	[500] µg/L	16:33:19
1	Ni 231.604†	10768.1	10301.9	[500] µg/L	16:32:58
1	P 214.914†	1359.0	1324.3	[2500] µg/L	16:33:19
1	Pb 220.353†	2302.4	2178.6	[500] µg/L	16:33:19
1	S 181.975 Axial†	272.4	249.5	[1000] µg/L	16:33:19
1	Sb 206.836†	599.4	568.4	[500] µg/L	16:33:19
1	Se 196.026†	396.8	371.8	[500] µg/L	16:33:19
1	SiO2†	29409.8	27598.2	[5347.5] µg/L	16:32:58
1	Si 251.611†	34329.7	33528.7	[2500] µg/L	16:32:58
1	Sn 189.927†	1299.8	1280.9	[500] µg/L	16:33:19
1	Ti 334.940†	233565.9	230054.7	[500] µg/L	16:32:53
1	Tl 190.801†	385.4	402.3	[500] µg/L	16:33:19
1	U 409.014†	6215.4	6203.7	[500] µg/L	16:32:58
1	V 292.402†	53048.0	52335.0	[500] µg/L	16:32:58
1	Zn 213.857†	22866.4	22005.3	[500] µg/L	16:32:58
2	Sc RADIAL	57277.6	57277.6	101 %	16:31:55
2	Al 396.153Radial†	7395.5	7287.2	[5000] µg/L	16:31:55
2	Ca 317.933Radial†	6211.2	5915.2	[5000] µg/L	16:32:15
2	K 766.490 Radial†	7980.6	7706.7	[5000] µg/L	16:31:55
2	Mg 279.077 IEC†	604.0	583.0	[5000] µg/L	16:32:15
2	Sr 421.552†	54765.5	53989.0	[500] µg/L	16:31:55
2	Sc 361.383	1976796.7	1976796.7	100.70 %	16:33:26
2	Y 371.029	1357513.2	1357513.2	100.35 %	16:33:26
2	Ag 328.068†	68789.6	68715.3	[500] µg/L	16:33:31
2	As 188.979†	285.8	284.2	[500] µg/L	16:33:52
2	B 249.677†	12976.0	12502.1	[500] µg/L	16:33:31
2	Ba 233.527†	21626.4	21493.9	[500] µg/L	16:33:31
2	Be 313.107†	874707.4	871511.2	[500] µg/L	16:33:26
2	Cd 226.502†	20785.1	20783.0	[500] µg/L	16:33:31
2	Co 228.616†	11579.6	11497.5	[500] µg/L	16:33:31
2	Cr 267.716†	26128.8	25998.4	[500] µg/L	16:33:31
2	Cu 324.752†	82210.9	79098.3	[500] µg/L	16:33:31
2	Mn 257.610†	168624.9	167714.3	[500] µg/L	16:33:26
2	Mo 202.031†	5307.9	5276.5	[500] µg/L	16:33:52
2	Ni 231.604†	10841.5	10454.2	[500] µg/L	16:33:31
2	P 214.914†	1330.2	1305.6	[2500] µg/L	16:33:52
2	Pb 220.353†	2234.1	2127.7	[500] µg/L	16:33:52
2	S 181.975 Axial†	262.6	241.9	[1000] µg/L	16:33:52
2	Sb 206.836†	590.7	564.1	[500] µg/L	16:33:52
2	Se 196.026†	389.5	367.5	[500] µg/L	16:33:52
2	SiO2†	29539.9	27943.9	[5347.5] µg/L	16:33:31

2	Si 251.611†	34501.4	33952.0	[2500] µg/L	16:33:31
2	Sn 189.927†	1233.2	1224.3	[500] µg/L	16:33:52
2	Ti 334.940†	235746.0	233939.9	[500] µg/L	16:33:26
2	Tl 190.801†	379.0	398.8	[500] µg/L	16:33:52
2	U 409.014†	6274.1	6307.8	[500] µg/L	16:33:31
2	V 292.402†	53430.8	53105.9	[500] µg/L	16:33:31
2	Zn 213.857†	22993.9	22300.4	[500] µg/L	16:33:31
3	Sc RADIAL	57058.8	57058.8	101 %	16:32:20
3	Al 396.153Radial†	7492.8	7411.5	[5000] µg/L	16:32:20
3	Ca 317.933Radial†	6205.9	5933.4	[5000] µg/L	16:32:41
3	K 766.490 Radial†	8033.0	7788.8	[5000] µg/L	16:32:20
3	Mg 279.077 IEC†	601.3	582.5	[5000] µg/L	16:32:41
3	Sr 421.552†	55478.9	54902.6	[500] µg/L	16:32:20
3	Sc 361.383	1973452.3	1973452.3	100.53 %	16:33:59
3	Y 371.029	1355765.1	1355765.1	100.22 %	16:33:59
3	Ag 328.068†	62917.4	62989.6	[500] µg/L	16:34:05
3	As 188.979†	237.6	236.8	[500] µg/L	16:34:25
3	B 249.677†	11812.4	11366.4	[500] µg/L	16:34:05
3	Ba 233.527†	19002.6	18920.2	[500] µg/L	16:34:05
3	Be 313.107†	778040.5	776822.6	[500] µg/L	16:33:59
3	Cd 226.502†	18161.8	18208.4	[500] µg/L	16:34:05
3	Co 228.616†	9999.7	9945.4	[500] µg/L	16:34:05
3	Cr 267.716†	21799.1	21735.4	[500] µg/L	16:34:05
3	Cu 324.752†	71681.4	68762.3	[500] µg/L	16:34:05
3	Mn 257.610†	150744.1	150210.9	[500] µg/L	16:33:59
3	Mo 202.031†	4242.5	4225.7	[500] µg/L	16:34:25
3	Ni 231.604†	9432.3	9070.6	[500] µg/L	16:34:05
3	P 214.914†	1083.7	1062.7	[2500] µg/L	16:34:25
3	Pb 220.353†	1851.4	1750.7	[500] µg/L	16:34:25
3	S 181.975 Axial†	228.1	208.0	[1000] µg/L	16:34:25
3	Sb 206.836†	487.0	461.9	[500] µg/L	16:34:25
3	Se 196.026†	331.3	310.2	[500] µg/L	16:34:25
3	SiO2†	26534.1	25003.6	[5347.5] µg/L	16:34:05
3	Si 251.611†	30910.4	30437.9	[2500] µg/L	16:34:05
3	Sn 189.927†	970.3	964.9	[500] µg/L	16:34:25
3	Ti 334.940†	207765.1	206502.3	[500] µg/L	16:33:59
3	Tl 190.801†	318.1	338.8	[500] µg/L	16:34:25
3	U 409.014†	5271.8	5321.3	[500] µg/L	16:34:05
3	V 292.402†	45729.0	45534.4	[500] µg/L	16:34:05
3	Zn 213.857†	20028.6	19389.3	[500] µg/L	16:34:05

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Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1980605.3	9639.15	0.49%	100.89 %
Sc RADIAL	56953.9	386.91	0.68%	101 %
Y 371.029	1360398.8	6570.38	0.48%	100.57 %
Ag 328.068†	66543.7	3103.16	4.66%	[500] µg/L
Al 396.153Radial†	7380.3	82.09	1.11%	[5000] µg/L
As 188.979†	272.1	31.03	11.41%	[500] µg/L
B 249.677†	12054.7	604.97	5.02%	[500] µg/L
Ba 233.527†	20540.0	1410.14	6.87%	[500] µg/L
Be 313.107†	835110.3	50997.60	6.11%	[500] µg/L
Ca 317.933Radial†	5952.0	48.84	0.82%	[5000] µg/L
Cd 226.502†	19838.5	1417.61	7.15%	[500] µg/L
Co 228.616†	10938.4	862.20	7.88%	[500] µg/L
Cr 267.716†	24447.5	2356.79	9.64%	[500] µg/L
Cu 324.752†	75307.4	5691.88	7.56%	[500] µg/L
K 766.490 Radial†	7753.1	42.12	0.54%	[5000] µg/L
Mg 279.077 IEC†	583.8	1.92	0.33%	[5000] µg/L
Mn 257.610†	160964.4	9413.47	5.85%	[500] µg/L
Mo 202.031†	4987.0	665.66	13.35%	[500] µg/L
Ni 231.604†	9942.2	758.69	7.63%	[500] µg/L
P 214.914†	1230.9	145.94	11.86%	[2500] µg/L
Pb 220.353†	2019.0	233.71	11.58%	[500] µg/L
S 181.975 Axial†	233.1	22.09	9.48%	[1000] µg/L
Sb 206.836†	531.5	60.25	11.34%	[500] µg/L
Se 196.026†	349.9	34.37	9.82%	[500] µg/L
SiO2†	26848.6	1607.13	5.99%	[5347.5] µg/L
Si 251.611†	32639.5	1918.39	5.88%	[2500] µg/L

Sn 189.927†	1156.7	168.51	14.57%	[500]	µg/L
Sr 421.552†	54529.4	479.17	0.88%	[500]	µg/L
Ti 334.940†	223499.0	14847.21	6.64%	[500]	µg/L
Tl 190.801†	380.0	35.70	9.40%	[500]	µg/L
U 409.014†	5944.2	542.02	9.12%	[500]	µg/L
V 292.402†	50325.1	4166.77	8.28%	[500]	µg/L
Zn 213.857†	21231.7	1602.33	7.55%	[500]	µg/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 2/19/2010 16:34:34

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	57422.3	57422.3	102 %	16:35:07
1	Al 396.153Radial†	14869.0	14621.7	[10000] µg/L	16:35:07
1	Ca 317.933Radial†	12244.2	11835.4	[10000] µg/L	16:35:27
1	Fe 238.204 Radial†	1337.9	1299.7	[10000] µg/L	16:35:27
1	K 766.490 Radial†	15761.0	15341.7	[10000] µg/L	16:35:07
1	Mg 279.077 IEC†	1192.0	1159.9	[10000] µg/L	16:35:27
1	Na 589.592 Radial†	34164.4	33140.9	[10000] µg/L	16:35:07
1	Sr 421.552†	110392.2	108581.9	[1000] µg/L	16:35:07
1	Sc 361.383	1976099.1	1976099.1	100.66 %	16:36:31
1	Y 371.029	1355904.7	1355904.7	100.23 %	16:36:31
1	Ag 328.068†	139743.4	139227.2	[1000] µg/L	16:36:37
1	As 188.979†	605.1	601.6	[1000] µg/L	16:36:57
1	B 249.677†	26002.4	25447.4	[1000] µg/L	16:36:37
1	Ba 233.527†	43710.4	43440.4	[1000] µg/L	16:36:37
1	Be 313.107†	1745428.1	1736819.7	[1000] µg/L	16:36:31
1	Cd 226.502†	41933.9	41800.2	[1000] µg/L	16:36:37
1	Co 228.616†	23253.7	23099.0	[1000] µg/L	16:36:37
1	Cr 267.716†	53002.6	52704.8	[1000] µg/L	16:36:37
1	Cu 324.752†	163999.7	160378.8	[1000] µg/L	16:36:37
1	Mn 257.610†	334533.8	332592.5	[1000] µg/L	16:36:37
1	Mo 202.031†	11127.7	11059.9	[1000] µg/L	16:36:57
1	Ni 231.604†	21437.9	20984.7	[1000] µg/L	16:36:37
1	P 214.914†	2747.0	2713.6	[5000] µg/L	16:36:57
1	Pb 220.353†	4519.4	4398.7	[1000] µg/L	16:36:57
1	S 181.975 Axial†	537.0	514.5	[2000] µg/L	16:36:57
1	Sb 206.836†	1201.1	1170.7	[1000] µg/L	16:36:57
1	Se 196.026†	778.4	754.0	[1000] µg/L	16:36:57
1	SiO2†	57839.1	56067.6	[10695] µg/L	16:36:37
1	Si 251.611†	68811.8	68049.2	[5000] µg/L	16:36:37
1	Sn 189.927†	2603.2	2585.7	[1000] µg/L	16:36:57
1	Ti 334.940†	470528.6	467263.1	[1000] µg/L	16:36:31
1	Tl 190.801†	793.2	810.4	[1000] µg/L	16:36:57
1	U 409.014†	12617.6	12611.8	[1000] µg/L	16:36:37
1	V 292.402†	108523.0	107854.9	[1000] µg/L	16:36:37
1	Zn 213.857†	45321.2	44489.2	[1000] µg/L	16:36:37
2	Sc RADIAL	58102.6	58102.6	103 %	16:35:33
2	Al 396.153Radial†	14960.9	14539.8	[10000] µg/L	16:35:33
2	Ca 317.933Radial†	12189.3	11640.9	[10000] µg/L	16:35:53
2	Fe 238.204 Radial†	1332.7	1279.3	[10000] µg/L	16:35:53
2	K 766.490 Radial†	15805.1	15203.0	[10000] µg/L	16:35:33
2	Mg 279.077 IEC†	1183.6	1138.1	[10000] µg/L	16:35:53
2	Na 589.592 Radial†	34301.4	32880.5	[10000] µg/L	16:35:33
2	Sr 421.552†	111111.1	108009.2	[1000] µg/L	16:35:33
2	Sc 361.383	1983646.2	1983646.2	101.05 %	16:37:04
2	Y 371.029	1360206.5	1360206.5	100.55 %	16:37:04
2	Ag 328.068†	139094.6	138056.9	[1000] µg/L	16:37:10
2	As 188.979†	587.5	581.9	[1000] µg/L	16:37:30
2	B 249.677†	25898.4	25246.3	[1000] µg/L	16:37:10
2	Ba 233.527†	43616.3	43182.0	[1000] µg/L	16:37:10
2	Be 313.107†	1746219.5	1731005.6	[1000] µg/L	16:37:04
2	Cd 226.502†	41774.2	41483.6	[1000] µg/L	16:37:10
2	Co 228.616†	23185.1	22943.2	[1000] µg/L	16:37:10
2	Cr 267.716†	52660.4	52165.9	[1000] µg/L	16:37:10
2	Cu 324.752†	163246.9	159013.9	[1000] µg/L	16:37:10
2	Mn 257.610†	333323.0	330129.8	[1000] µg/L	16:37:10
2	Mo 202.031†	10856.0	10749.0	[1000] µg/L	16:37:30
2	Ni 231.604†	21396.9	20863.1	[1000] µg/L	16:37:10
2	P 214.914†	2695.8	2652.5	[5000] µg/L	16:37:30
2	Pb 220.353†	4439.8	4303.0	[1000] µg/L	16:37:30



2	S 181.975 Axial†	528.4	504.0	[2000]	µg/L	16:37:30
2	Sb 206.836†	1179.2	1144.5	[1000]	µg/L	16:37:30
2	Se 196.026†	773.9	746.5	[1000]	µg/L	16:37:30
2	SiO2†	57827.3	55837.4	[10695]	µg/L	16:37:10
2	Si 251.611†	68760.8	67738.7	[5000]	µg/L	16:37:10
2	Sn 189.927†	2530.7	2504.2	[1000]	µg/L	16:37:30
2	Ti 334.940†	470622.3	465577.3	[1000]	µg/L	16:37:04
2	Tl 190.801†	781.8	796.1	[1000]	µg/L	16:37:30
2	U 409.014†	12629.7	12576.1	[1000]	µg/L	16:37:10
2	V 292.402†	108044.3	106971.0	[1000]	µg/L	16:37:10
2	Zn 213.857†	45147.6	44146.0	[1000]	µg/L	16:37:10
3	Sc RADIAL	57759.7	57759.7	102	%	16:35:59
3	Al 396.153Radial†	14873.5	14540.6	[10000]	µg/L	16:35:59
3	Ca 317.933Radial†	12176.6	11698.9	[10000]	µg/L	16:36:19
3	Fe 238.204 Radial†	1332.4	1286.7	[10000]	µg/L	16:36:19
3	K 766.490 Radial†	15741.4	15231.9	[10000]	µg/L	16:35:59
3	Mg 279.077 IEC†	1190.1	1151.2	[10000]	µg/L	16:36:19
3	Na 589.592 Radial†	34189.4	32969.0	[10000]	µg/L	16:35:59
3	Sr 421.552†	110552.5	108104.4	[1000]	µg/L	16:35:59
3	Sc 361.383	1985078.6	1985078.6	101.12	%	16:37:37
3	Y 371.029	1363323.6	1363323.6	100.78	%	16:37:37
3	Ag 328.068†	130033.0	128996.2	[1000]	µg/L	16:37:43
3	As 188.979†	504.5	499.3	[1000]	µg/L	16:38:03
3	B 249.677†	23878.6	23230.3	[1000]	µg/L	16:37:43
3	Ba 233.527†	39125.7	38709.9	[1000]	µg/L	16:37:43
3	Be 313.107†	1611138.8	1596172.2	[1000]	µg/L	16:37:37
3	Cd 226.502†	37509.7	37236.5	[1000]	µg/L	16:37:43
3	Co 228.616†	20554.3	20325.0	[1000]	µg/L	16:37:43
3	Cr 267.716†	45522.8	45069.6	[1000]	µg/L	16:37:43
3	Cu 324.752†	146020.7	141861.7	[1000]	µg/L	16:37:43
3	Mn 257.610†	295756.2	292740.6	[1000]	µg/L	16:37:43
3	Mo 202.031†	9074.4	8979.3	[1000]	µg/L	16:38:03
3	Ni 231.604†	18944.4	18422.5	[1000]	µg/L	16:37:43
3	P 214.914†	2295.1	2254.3	[5000]	µg/L	16:38:03
3	Pb 220.353†	3820.6	3687.4	[1000]	µg/L	16:38:03
3	S 181.975 Axial†	464.0	439.9	[2000]	µg/L	16:38:03
3	Sb 206.836†	1004.3	970.7	[1000]	µg/L	16:38:03
3	Se 196.026†	672.5	645.8	[1000]	µg/L	16:38:03
3	SiO2†	52945.1	50967.8	[10695]	µg/L	16:37:43
3	Si 251.611†	62859.1	61853.1	[5000]	µg/L	16:37:43
3	Sn 189.927†	2084.7	2061.2	[1000]	µg/L	16:38:03
3	Ti 334.940†	431690.8	426740.5	[1000]	µg/L	16:37:37
3	Tl 190.801†	695.2	709.9	[1000]	µg/L	16:38:03
3	U 409.014†	11027.6	10982.7	[1000]	µg/L	16:37:43
3	V 292.402†	95350.9	94340.9	[1000]	µg/L	16:37:43
3	Zn 213.857†	40251.0	39271.3	[1000]	µg/L	16:37:43

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1981608.0	4824.30	0.24%	100.94 %
Sc RADIAL	57761.5	340.17	0.59%	102 %
Y 371.029	1359811.6	3725.20	0.27%	100.52 %
Ag 328.068†	135426.8	5599.70	4.13%	[1000] µg/L
Al 396.153Radial†	14567.3	47.07	0.32%	[10000] µg/L
As 188.979†	560.9	54.25	9.67%	[1000] µg/L
B 249.677†	24641.4	1226.12	4.98%	[1000] µg/L
Ba 233.527†	41777.5	2659.67	6.37%	[1000] µg/L
Be 313.107†	1687999.2	79577.59	4.71%	[1000] µg/L
Ca 317.933Radial†	11725.1	99.83	0.85%	[10000] µg/L
Cd 226.502†	40173.4	2548.40	6.34%	[1000] µg/L
Co 228.616†	22122.4	1558.58	7.05%	[1000] µg/L
Cr 267.716†	49980.1	4261.16	8.53%	[1000] µg/L
Cu 324.752†	153751.5	10319.43	6.71%	[1000] µg/L
Fe 238.204 Radial†	1288.5	10.35	0.80%	[10000] µg/L
K 766.490 Radial†	15258.9	73.17	0.48%	[10000] µg/L
Mg 279.077 IEC†	1149.7	11.01	0.96%	[10000] µg/L
Mn 257.610†	318487.6	22331.56	7.01%	[1000] µg/L
Mo 202.031†	10262.8	1122.29	10.94%	[1000] µg/L
Na 589.592 Radial†	32996.8	132.37	0.40%	[10000] µg/L

Ni 231.604†	20090.1	1445.49	7.20%	[1000]	µg/L
P 214.914†	2540.1	249.38	9.82%	[5000]	µg/L
Pb 220.353†	4129.7	386.03	9.35%	[1000]	µg/L
S 181.975 Axial†	486.1	40.36	8.30%	[2000]	µg/L
Sb 206.836†	1095.3	108.69	9.92%	[1000]	µg/L
Se 196.026†	715.4	60.44	8.45%	[1000]	µg/L
SiO2†	54290.9	2880.22	5.31%	[10695]	µg/L
Si 251.611†	65880.3	3491.15	5.30%	[5000]	µg/L
Sn 189.927†	2383.7	282.23	11.84%	[1000]	µg/L
Sr 421.552†	108231.8	306.90	0.28%	[1000]	µg/L
Ti 334.940†	453193.6	22924.60	5.06%	[1000]	µg/L
Tl 190.801†	772.1	54.39	7.04%	[1000]	µg/L
U 409.014†	12056.9	930.42	7.72%	[1000]	µg/L
V 292.402†	103055.6	7560.10	7.34%	[1000]	µg/L
Zn 213.857†	42635.5	2918.50	6.85%	[1000]	µg/L

Sequence No.: 5  
 Sample ID: S10  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 2/19/2010 16:38:14  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	57539.5	57539.5	102 %	16:38:46
1	Al 396.153Radial†	72990.6	71659.1	[50000] µg/L	16:38:46
1	Ca 317.933Radial†	59650.4	58357.0	[50000] µg/L	16:38:46
1	Fe 238.204 Radial†	2601.5	2537.7	[20000] µg/L	16:39:06
1	Mg 279.077 IEC†	5707.4	5591.1	[50000] µg/L	16:39:06
1	Na 589.592 Radial†	66487.5	64809.1	[20000] µg/L	16:38:46
1	Sc 361.383	1991346.9	1991346.9	101.44 %	16:40:10
1	Y 371.029	1361642.8	1361642.8	100.66 %	16:40:10
2	Sc RADIAL	57692.4	57692.4	102 %	16:39:12
2	Al 396.153Radial†	73669.2	72133.7	[50000] µg/L	16:39:12
2	Ca 317.933Radial†	60236.2	58775.4	[50000] µg/L	16:39:12
2	Fe 238.204 Radial†	2575.9	2505.9	[20000] µg/L	16:39:32
2	Mg 279.077 IEC†	5682.3	5551.6	[50000] µg/L	16:39:32
2	Na 589.592 Radial†	66913.0	65052.7	[20000] µg/L	16:39:12
2	Sc 361.383	1994513.8	1994513.8	101.60 %	16:40:18
2	Y 371.029	1362831.0	1362831.0	100.74 %	16:40:18
3	Sc RADIAL	57518.8	57518.8	102 %	16:39:38
3	Al 396.153Radial†	72963.9	71658.6	[50000] µg/L	16:39:38
3	Ca 317.933Radial†	59707.9	58434.6	[50000] µg/L	16:39:38
3	Fe 238.204 Radial†	2595.7	2533.0	[20000] µg/L	16:39:58
3	Mg 279.077 IEC†	5726.3	5611.7	[50000] µg/L	16:39:58
3	Na 589.592 Radial†	66483.6	64828.8	[20000] µg/L	16:39:38
3	Sc 361.383	1986414.7	1986414.7	101.19 %	16:40:26
3	Y 371.029	1358035.0	1358035.0	100.39 %	16:40:26

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1990758.5	4081.49	0.21%	101.41 %
Sc RADIAL	57583.6	94.84	0.16%	102 %
Y 371.029	1360836.3	2497.65	0.18%	100.60 %
Al 396.153Radial†	71817.1	274.12	0.38%	[50000] µg/L
Ca 317.933Radial†	58522.3	222.58	0.38%	[50000] µg/L
Fe 238.204 Radial†	2525.5	17.19	0.68%	[20000] µg/L
Mg 279.077 IEC†	5584.8	30.54	0.55%	[50000] µg/L
Na 589.592 Radial†	64896.9	135.34	0.21%	[20000] µg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	135.0	0.00000	0.999971	
Al 396.153Radial	3	Lin Thru 0	0.0	1.437	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	0.5579	0.00000	0.999904	
B 249.677	3	Lin Thru 0	0.0	24.54	0.00000	0.999963	
Ba 233.527	3	Lin Thru 0	0.0	41.65	0.00000	0.999968	
Be 313.107	3	Lin Thru 0	0.0	1685	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.171	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	40.09	0.00000	0.999971	
Co 228.616	3	Lin Thru 0	0.0	22.08	0.00000	0.999983	
Cr 267.716	3	Lin Thru 0	0.0	49.79	0.00000	0.999947	
Cu 324.752	3	Lin Thru 0	0.0	153.2	0.00000	0.999952	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1268	0.00000	0.999967	
K 766.490 Radial	3	Lin Thru 0	0.0	1.531	0.00000	0.999977	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1119	0.00000	0.999975	
Mn 257.610	3	Lin Thru 0	0.0	319.3	0.00000	0.999976	
Mo 202.031	3	Lin Thru 0	0.0	10.21	0.00000	0.999909	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.256	0.00000	0.999977	

Ni 231.604	3	Lin Thru 0	0.0	20.06	0.00000	0.999972
P 214.914	3	Lin Thru 0	0.0	0.5051	0.00000	0.999914
Pb 220.353	3	Lin Thru 0	0.0	4.114	0.00000	0.999940
S 181.975 Axial	3	Lin Thru 0	0.0	0.2411	0.00000	0.999862
Sb 206.836	3	Lin Thru 0	0.0	1.089	0.00000	0.999918
Se 196.026	3	Lin Thru 0	0.0	0.7120	0.00000	0.999954
SiO2	3	Lin Thru 0	0.0	5.066	0.00000	0.999988
Si 251.611	3	Lin Thru 0	0.0	13.15	0.00000	0.999992
Sn 189.927	3	Lin Thru 0	0.0	2.371	0.00000	0.999901
Sr 421.552	3	Lin Thru 0	0.0	108.4	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	452.0	0.00000	0.999983
Tl 190.801	3	Lin Thru 0	0.0	0.7699	0.00000	0.999976
U 409.014	3	Lin Thru 0	0.0	12.04	0.00000	0.999914
V 292.402	3	Lin Thru 0	0.0	102.6	0.00000	0.999947
Zn 213.857	3	Lin Thru 0	0.0	42.62	0.00000	0.999982

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 2/19/2010 16:40:36

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57359.3	57359.3	102 %		16:41:09
1	Al 396.153Radial†	7610.3	7488.4	5197.5 µg/L	5197.5 ppb	16:41:09
1	Ca 317.933Radial†	6222.8	5917.8	5054.9 µg/L	5054.9 ppb	16:41:29
1	Fe 238.204 Radial†	692.6	665.6	5260.8 µg/L	5260.8 ppb	16:41:29
1	K 766.490 Radial†	4130.5	3903.3	2549.3 µg/L	2549.3 ppb	16:41:09
1	Mg 279.077 IEC†	619.9	597.8	5347.7 µg/L	5347.7 ppb	16:41:29
1	Na 589.592 Radial†	9010.6	8402.7	2580.8 µg/L	2580.8 ppb	16:41:09
1	Sr 421.552†	58315.4	57408.5	529.60 µg/L	529.60 ppb	16:41:09
1	Sc 361.383	2000166.2	2000166.2	101.89 %		16:42:33
1	Y 371.029	1374985.6	1374985.6	101.64 %		16:42:33
1	Ag 328.068†	36064.6	35798.3	269.00 µg/L	269.00 ppb	16:42:38
1	As 188.979†	291.8	286.8	513.02 µg/L	513.02 ppb	16:42:59
1	B 249.677†	13712.5	13074.4	530.96 µg/L	530.96 ppb	16:42:38
1	Ba 233.527†	22228.0	21833.3	525.11 µg/L	525.11 ppb	16:42:38
1	Be 313.107†	460753.1	455074.9	269.89 µg/L	269.89 ppb	16:42:33
1	Cd 226.502†	21063.9	20815.4	519.08 µg/L	519.08 ppb	16:42:38
1	Co 228.616†	11897.3	11675.0	528.19 µg/L	528.19 ppb	16:42:38
1	Cr 267.716†	25972.0	25541.3	513.34 µg/L	513.34 ppb	16:42:38
1	Cu 324.752†	84959.1	80841.8	528.42 µg/L	528.42 ppb	16:42:38
1	Mn 257.610†	174009.6	171042.6	536.11 µg/L	536.11 ppb	16:42:33
1	Mo 202.031†	5977.0	5871.6	575.18 µg/L	575.18 ppb	16:42:59
1	Ni 231.604†	11001.5	10485.4	522.13 µg/L	522.13 ppb	16:42:38
1	P 214.914†	1396.3	1355.1	2632.9 µg/L	2632.9 ppb	16:42:59
1	Pb 220.353†	2319.9	2186.0	531.70 µg/L	531.70 ppb	16:42:59
1	S 181.975 Axial†	667.0	635.7	2636.3 µg/L	2636.3 ppb	16:42:59
1	Sb 206.836†	616.3	582.4	537.83 µg/L	537.83 ppb	16:42:59
1	Se 196.026†	1971.6	1915.8	2698.7 µg/L	2698.7 ppb	16:42:59
1	SiO2†	55895.4	53468.6	10554 µg/L	10554 ppb	16:42:38
1	Si 251.611†	66312.0	64773.2	4924.2 µg/L	4924.2 ppb	16:42:38
1	Sn 189.927†	1397.6	1371.4	578.38 µg/L	578.38 ppb	16:42:59
1	Ti 334.940†	236505.6	231950.1	512.78 µg/L	512.78 ppb	16:42:33
1	Tl 190.801†	406.2	421.1	553.15 µg/L	553.15 ppb	16:42:59
1	U 409.014†	6233.6	6195.2	513.68 µg/L	513.68 ppb	16:42:38
1	V 292.402†	55272.1	54293.1	535.87 µg/L	535.87 ppb	16:42:38
1	Zn 213.857†	23721.8	22748.1	529.99 µg/L	529.99 ppb	16:42:38
2	Sc RADIAL	57362.6	57362.6	102 %		16:41:35
2	Al 396.153Radial†	7570.2	7448.5	5170.1 µg/L	5170.1 ppb	16:41:35
2	Ca 317.933Radial†	6248.3	5942.6	5076.0 µg/L	5076.0 ppb	16:41:55
2	Fe 238.204 Radial†	687.3	660.3	5219.2 µg/L	5219.2 ppb	16:41:55
2	K 766.490 Radial†	4135.1	3907.6	2552.1 µg/L	2552.1 ppb	16:41:35
2	Mg 279.077 IEC†	628.6	606.2	5423.0 µg/L	5423.0 ppb	16:41:55
2	Na 589.592 Radial†	8905.8	8299.0	2549.0 µg/L	2549.0 ppb	16:41:35
2	Sr 421.552†	58283.1	57373.4	529.28 µg/L	529.28 ppb	16:41:35
2	Sc 361.383	1991588.3	1991588.3	101.45 %		16:43:06
2	Y 371.029	1369085.3	1369085.3	101.21 %		16:43:06
2	Ag 328.068†	36279.5	36162.5	271.74 µg/L	271.74 ppb	16:43:12
2	As 188.979†	284.2	280.6	501.89 µg/L	501.89 ppb	16:43:32
2	B 249.677†	13841.7	13259.7	538.55 µg/L	538.55 ppb	16:43:12
2	Ba 233.527†	22542.4	22237.3	534.82 µg/L	534.82 ppb	16:43:12
2	Be 313.107†	458487.5	454789.4	269.72 µg/L	269.72 ppb	16:43:06
2	Cd 226.502†	21330.8	21167.6	527.88 µg/L	527.88 ppb	16:43:12
2	Co 228.616†	12048.7	11874.5	537.21 µg/L	537.21 ppb	16:43:12
2	Cr 267.716†	26258.5	25933.5	521.22 µg/L	521.22 ppb	16:43:12
2	Cu 324.752†	85756.0	81986.4	535.89 µg/L	535.89 ppb	16:43:12
2	Mn 257.610†	173215.7	170995.8	535.95 µg/L	535.95 ppb	16:43:06
2	Mo 202.031†	5783.7	5706.4	559.00 µg/L	559.00 ppb	16:43:32
2	Ni 231.604†	11147.8	10676.1	531.63 µg/L	531.63 ppb	16:43:12
2	P 214.914†	1350.6	1315.9	2554.3 µg/L	2554.3 ppb	16:43:32
2	Pb 220.353†	2269.2	2145.8	521.87 µg/L	521.87 ppb	16:43:32

2	S 181.975 Axial†	662.1	633.7	2628.1 µg/L	2628.1 ppb	16:43:32
2	Sb 206.836†	597.3	566.3	522.67 µg/L	522.67 ppb	16:43:32
2	Se 196.026†	1939.9	1892.9	2666.3 µg/L	2666.3 ppb	16:43:32
2	SiO2†	56544.0	54344.2	10727 µg/L	10727 ppb	16:43:12
2	Si 251.611†	67028.2	65759.4	4999.2 µg/L	4999.2 ppb	16:43:12
2	Sn 189.927†	1346.2	1326.5	559.48 µg/L	559.48 ppb	16:43:32
2	Ti 334.940†	235243.5	231705.8	512.24 µg/L	512.24 ppb	16:43:06
2	Tl 190.801†	411.2	427.8	561.75 µg/L	561.75 ppb	16:43:32
2	U 409.014†	6266.1	6253.6	518.55 µg/L	518.55 ppb	16:43:12
2	V 292.402†	55774.5	55022.0	542.87 µg/L	542.87 ppb	16:43:12
2	Zn 213.857†	24005.0	23127.4	538.84 µg/L	538.84 ppb	16:43:12
3	Sc RADIAL	57314.4	57314.4	101 %		16:42:01
3	Al 396.153Radial†	7617.9	7501.8	5209.5 µg/L	5209.5 ppb	16:42:01
3	Ca 317.933Radial†	6192.6	5892.9	5033.6 µg/L	5033.6 ppb	16:42:21
3	Fe 238.204 Radial†	680.9	654.6	5172.6 µg/L	5172.6 ppb	16:42:21
3	K 766.490 Radial†	4172.6	3948.0	2578.5 µg/L	2578.5 ppb	16:42:01
3	Mg 279.077 IEC†	617.9	596.2	5331.5 µg/L	5331.5 ppb	16:42:21
3	Na 589.592 Radial†	9012.1	8411.2	2583.4 µg/L	2583.4 ppb	16:42:01
3	Sr 421.552†	58397.5	57534.4	530.76 µg/L	530.76 ppb	16:42:01
3	Sc 361.383	1985318.4	1985318.4	101.13 %		16:43:39
3	Y 371.029	1365549.9	1365549.9	100.95 %		16:43:39
3	Ag 328.068†	32686.9	32723.0	245.69 µg/L	245.69 ppb	16:43:45
3	As 188.979†	231.6	229.5	410.45 µg/L	410.45 ppb	16:44:05
3	B 249.677†	12281.0	11759.6	477.28 µg/L	477.28 ppb	16:43:45
3	Ba 233.527†	19297.0	19098.3	459.31 µg/L	459.31 ppb	16:43:45
3	Be 313.107†	404356.4	402690.8	238.83 µg/L	238.83 ppb	16:43:39
3	Cd 226.502†	18203.2	18141.4	452.33 µg/L	452.33 ppb	16:43:45
3	Co 228.616†	10166.3	10050.7	454.63 µg/L	454.63 ppb	16:43:45
3	Cr 267.716†	21411.9	21222.9	426.55 µg/L	426.55 ppb	16:43:45
3	Cu 324.752†	73007.3	69647.2	455.34 µg/L	455.34 ppb	16:43:45
3	Mn 257.610†	153334.3	151875.9	476.08 µg/L	476.08 ppb	16:43:39
3	Mo 202.031†	4566.2	4520.5	442.87 µg/L	442.87 ppb	16:44:05
3	Ni 231.604†	9424.8	9007.0	448.52 µg/L	448.52 ppb	16:43:45
3	P 214.914†	1102.1	1074.4	2083.0 µg/L	2083.0 ppb	16:44:05
3	Pb 220.353†	1863.1	1751.3	425.87 µg/L	425.87 ppb	16:44:05
3	S 181.975 Axial†	551.5	526.4	2182.8 µg/L	2182.8 ppb	16:44:05
3	Sb 206.836†	493.8	465.8	429.60 µg/L	429.60 ppb	16:44:05
3	Se 196.026†	1594.6	1557.5	2195.3 µg/L	2195.3 ppb	16:44:05
3	SiO2†	49563.2	47617.5	9399.1 µg/L	9399.1 ppb	16:43:45
3	Si 251.611†	58584.7	57619.0	4380.3 µg/L	4380.3 ppb	16:43:45
3	Sn 189.927†	1053.3	1041.2	439.13 µg/L	439.13 ppb	16:44:05
3	Ti 334.940†	205922.2	203444.7	449.72 µg/L	449.72 ppb	16:43:39
3	Tl 190.801†	337.8	356.4	468.42 µg/L	468.42 ppb	16:44:05
3	U 409.014†	5226.1	5244.7	434.73 µg/L	434.73 ppb	16:43:45
3	V 292.402†	46549.8	46074.1	454.46 µg/L	454.46 ppb	16:43:45
3	Zn 213.857†	20360.6	19598.5	456.55 µg/L	456.55 ppb	16:43:45

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1992357.6	101.49 %	0.380			0.37%
Sc RADIAL	57345.5	102 %	0.0			0.05%
Y 371.029	1369873.6	101.27 %	0.352			0.35%
Ag 328.068†	34894.6	262.14 µg/L	14.318	262.14 ppb	14.318	5.46%
QC value within limits for Ag 328.068 Recovery = 104.86%						
Al 396.153Radial†	7479.5	5192.4 µg/L	20.22	5192.4 ppb	20.22	0.39%
QC value within limits for Al 396.153Radial Recovery = 103.85%						
As 188.979†	265.6	475.12 µg/L	56.284	475.12 ppb	56.284	11.85%
QC value within limits for As 188.979 Recovery = 95.02%						
B 249.677†	12697.9	515.59 µg/L	33.400	515.59 ppb	33.400	6.48%
QC value within limits for B 249.677 Recovery = 103.12%						
Ba 233.527†	21056.3	506.41 µg/L	41.083	506.41 ppb	41.083	8.11%
QC value within limits for Ba 233.527 Recovery = 101.28%						
Be 313.107†	437518.4	259.48 µg/L	17.887	259.48 ppb	17.887	6.89%
QC value within limits for Be 313.107 Recovery = 103.79%						
Ca 317.933Radial†	5917.8	5054.8 µg/L	21.22	5054.8 ppb	21.22	0.42%
QC value within limits for Ca 317.933Radial Recovery = 101.10%						
Cd 226.502†	20041.5	499.76 µg/L	41.316	499.76 ppb	41.316	8.27%
QC value within limits for Cd 226.502 Recovery = 99.95%						
Co 228.616†	11200.1	506.67 µg/L	45.295	506.67 ppb	45.295	8.94%

QC value within limits for Co 228.616 Recovery = 101.33%					
Cr 267.716†	24232.6	487.04 µg/L	52.530	487.04 ppb	52.530 10.79%
QC value within limits for Cr 267.716 Recovery = 97.41%					
Cu 324.752†	77491.8	506.55 µg/L	44.507	506.55 ppb	44.507 8.79%
QC value within limits for Cu 324.752 Recovery = 101.31%					
Fe 238.204 Radial†	660.2	5217.6 µg/L	44.12	5217.6 ppb	44.12 0.85%
QC value within limits for Fe 238.204 Radial Recovery = 104.35%					
K 766.490 Radial†	3919.6	2560.0 µg/L	16.09	2560.0 ppb	16.09 0.63%
QC value within limits for K 766.490 Radial Recovery = 102.40%					
Mg 279.077 IEC†	600.1	5367.4 µg/L	48.83	5367.4 ppb	48.83 0.91%
QC value within limits for Mg 279.077 IEC Recovery = 107.35%					
Mn 257.610†	164638.1	516.05 µg/L	34.615	516.05 ppb	34.615 6.71%
QC value within limits for Mn 257.610 Recovery = 103.21%					
Mo 202.031†	5366.2	525.68 µg/L	72.174	525.68 ppb	72.174 13.73%
QC value within limits for Mo 202.031 Recovery = 105.14%					
Na 589.592 Radial†	8371.0	2571.1 µg/L	19.18	2571.1 ppb	19.18 0.75%
QC value within limits for Na 589.592 Radial Recovery = 102.84%					
Ni 231.604†	10056.2	500.76 µg/L	45.489	500.76 ppb	45.489 9.08%
QC value within limits for Ni 231.604 Recovery = 100.15%					
P 214.914†	1248.5	2423.4 µg/L	297.40	2423.4 ppb	297.40 12.27%
QC value within limits for P 214.914 Recovery = 96.94%					
Pb 220.353†	2027.7	493.15 µg/L	58.472	493.15 ppb	58.472 11.86%
QC value within limits for Pb 220.353 Recovery = 98.63%					
S 181.975 Axial†	598.6	2482.4 µg/L	259.45	2482.4 ppb	259.45 10.45%
QC value within limits for S 181.975 Axial Recovery = 99.30%					
Sb 206.836†	538.2	496.70 µg/L	58.600	496.70 ppb	58.600 11.80%
QC value within limits for Sb 206.836 Recovery = 99.34%					
Se 196.026†	1788.7	2520.1 µg/L	281.74	2520.1 ppb	281.74 11.18%
QC value within limits for Se 196.026 Recovery = 100.81%					
SiO2†	51810.1	10227 µg/L	721.9	10227 ppb	721.9 7.06%
QC value within limits for SiO2 Recovery = 95.62%					
Si 251.611†	62717.2	4767.9 µg/L	337.74	4767.9 ppb	337.74 7.08%
QC value within limits for Si 251.611 Recovery = 95.36%					
Sn 189.927†	1246.4	525.66 µg/L	75.534	525.66 ppb	75.534 14.37%
QC value within limits for Sn 189.927 Recovery = 105.13%					
Sr 421.552†	57438.8	529.88 µg/L	0.781	529.88 ppb	0.781 0.15%
QC value within limits for Sr 421.552 Recovery = 105.98%					
Ti 334.940†	222366.9	491.58 µg/L	36.251	491.58 ppb	36.251 7.37%
QC value within limits for Ti 334.940 Recovery = 98.32%					
Tl 190.801†	401.7	527.77 µg/L	51.582	527.77 ppb	51.582 9.77%
QC value within limits for Tl 190.801 Recovery = 105.55%					
U 409.014†	5897.8	488.99 µg/L	47.052	488.99 ppb	47.052 9.62%
QC value within limits for U 409.014 Recovery = 97.80%					
V 292.402†	51796.4	511.07 µg/L	49.146	511.07 ppb	49.146 9.62%
QC value within limits for V 292.402 Recovery = 102.21%					
Zn 213.857†	21824.7	508.46 µg/L	45.173	508.46 ppb	45.173 8.88%
QC value within limits for Zn 213.857 Recovery = 101.69%					
All analyte(s) passed QC.					

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 2/19/2010 16:44:15

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICB

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56443.8	56443.8	99.9 %		16:44:48
1	Al 396.153Radial†	-10.1	-17.4	-12.137 µg/L	-12.137 ppb	16:44:48
1	Ca 317.933Radial†	199.6	-11.5	-9.8207 µg/L	-9.8207 ppb	16:45:08
1	Fe 238.204 Radial†	15.6	-0.9	-7.1871 µg/L	-7.1871 ppb	16:45:08
1	K 766.490 Radial†	171.4	6.6	4.2945 µg/L	4.2945 ppb	16:44:48
1	Mg 279.077 IEC†	7.6	-5.2	-46.321 µg/L	-46.321 ppb	16:45:08
1	Na 589.592 Radial†	489.1	17.3	5.3226 µg/L	5.3226 ppb	16:44:48
1	Sr 421.552†	79.0	50.3	0.4638 µg/L	0.4638 ppb	16:44:48
1	Sc 361.383	1989449.1	1989449.1	101.34 %		16:46:10
1	Y 371.029	1372109.7	1372109.7	101.43 %		16:46:10
1	Ag 328.068†	-456.4	-48.7	-0.3594 µg/L	-0.3594 ppb	16:46:15
1	As 188.979†	-5.3	-4.7	-8.4993 µg/L	-8.4993 ppb	16:46:36
1	B 249.677†	407.4	17.9	0.7343 µg/L	0.7343 ppb	16:46:36
1	Ba 233.527†	-5.2	11.9	0.2870 µg/L	0.2870 ppb	16:46:36
1	Be 313.107†	-2754.2	138.0	0.0819 µg/L	0.0819 ppb	16:46:15
1	Cd 226.502†	-144.4	-0.8	-0.0195 µg/L	-0.0195 ppb	16:46:36
1	Co 228.616†	1.0	-1.0	-0.0431 µg/L	-0.0431 ppb	16:46:36
1	Cr 267.716†	-33.7	17.2	0.3447 µg/L	0.3447 ppb	16:46:36
1	Cu 324.752†	2574.7	-3.1	-0.0214 µg/L	-0.0214 ppb	16:46:15
1	Mn 257.610†	-226.6	32.4	0.1025 µg/L	0.1025 ppb	16:46:36
1	Mo 202.031†	0.9	6.2	0.6075 µg/L	0.6075 ppb	16:46:36
1	Ni 231.604†	309.9	-6.6	-0.3281 µg/L	-0.3281 ppb	16:46:36
1	P 214.914†	11.4	-4.0	-7.9899 µg/L	-7.9899 ppb	16:46:36
1	Pb 220.353†	88.4	-3.8	-0.9074 µg/L	-0.9074 ppb	16:46:36
1	S 181.975 Axial†	15.3	-3.9	-15.967 µg/L	-15.967 ppb	16:46:36
1	Sb 206.836†	19.9	-2.9	-2.6187 µg/L	-2.6187 ppb	16:46:36
1	Se 196.026†	12.9	-6.6	-9.2715 µg/L	-9.2715 ppb	16:46:36
1	SiO2†	1429.0	18.5	3.6472 µg/L	3.6472 ppb	16:46:15
1	Si 251.611†	332.7	17.7	1.3429 µg/L	1.3429 ppb	16:46:36
1	Sn 189.927†	3.4	3.0	1.2548 µg/L	1.2548 ppb	16:46:36
1	Ti 334.940†	214.5	36.6	0.0844 µg/L	0.0844 ppb	16:46:15
1	Tl 190.801†	-23.3	-0.6	-0.8230 µg/L	-0.8230 ppb	16:46:36
1	U 409.014†	-112.1	-33.5	-2.7841 µg/L	-2.7841 ppb	16:46:15
1	V 292.402†	-13.0	31.9	0.3124 µg/L	0.3124 ppb	16:46:15
1	Zn 213.857†	555.4	13.6	0.3246 µg/L	0.3246 ppb	16:46:36
2	Sc RADIAL	56635.2	56635.2	100 %		16:45:14
2	Al 396.153Radial†	-10.1	-17.4	-12.141 µg/L	-12.141 ppb	16:45:14
2	Ca 317.933Radial†	187.9	-23.8	-20.367 µg/L	-20.367 ppb	16:45:34
2	Fe 238.204 Radial†	16.3	-0.3	-2.5827 µg/L	-2.5827 ppb	16:45:34
2	K 766.490 Radial†	218.4	52.9	34.520 µg/L	34.520 ppb	16:45:14
2	Mg 279.077 IEC†	12.4	-0.5	-4.1392 µg/L	-4.1392 ppb	16:45:34
2	Na 589.592 Radial†	513.9	40.5	12.430 µg/L	12.430 ppb	16:45:14
2	Sr 421.552†	58.4	29.4	0.2715 µg/L	0.2715 ppb	16:45:14
2	Sc 361.383	1983608.7	1983608.7	101.04 %		16:46:42
2	Y 371.029	1367482.8	1367482.8	101.09 %		16:46:42
2	Ag 328.068†	-443.4	-37.3	-0.2763 µg/L	-0.2763 ppb	16:46:47
2	As 188.979†	-2.8	-2.3	-4.1149 µg/L	-4.1149 ppb	16:47:08
2	B 249.677†	412.0	23.6	0.9621 µg/L	0.9621 ppb	16:47:08
2	Ba 233.527†	-18.2	-0.9	-0.0219 µg/L	-0.0219 ppb	16:47:08
2	Be 313.107†	-2703.5	180.2	0.1068 µg/L	0.1068 ppb	16:46:47
2	Cd 226.502†	-127.6	15.4	0.3840 µg/L	0.3840 ppb	16:47:08
2	Co 228.616†	7.3	5.3	0.2405 µg/L	0.2405 ppb	16:47:08
2	Cr 267.716†	-58.8	-7.8	-0.1569 µg/L	-0.1569 ppb	16:47:08
2	Cu 324.752†	2608.4	37.7	0.2459 µg/L	0.2459 ppb	16:46:47
2	Mn 257.610†	-227.1	31.2	0.0977 µg/L	0.0977 ppb	16:47:08
2	Mo 202.031†	0.0	5.4	0.5248 µg/L	0.5248 ppb	16:47:08
2	Ni 231.604†	305.0	-10.5	-0.5251 µg/L	-0.5251 ppb	16:47:08
2	P 214.914†	15.6	0.1	0.1534 µg/L	0.1534 ppb	16:47:08
2	Pb 220.353†	82.8	-8.9	-2.1787 µg/L	-2.1787 ppb	16:47:08



2	S 181.975 Axial†	18.3	-0.8	-3.3922 µg/L	-3.3922 ppb	16:47:08
2	Sb 206.836†	21.7	-1.0	-0.9259 µg/L	-0.9259 ppb	16:47:08
2	Se 196.026†	16.5	-3.0	-4.1629 µg/L	-4.1629 ppb	16:47:08
2	SiO2†	1450.1	43.5	8.5888 µg/L	8.5888 ppb	16:46:47
2	Si 251.611†	323.7	9.8	0.7431 µg/L	0.7431 ppb	16:47:08
2	Sn 189.927†	7.2	6.8	2.8541 µg/L	2.8541 ppb	16:47:08
2	Ti 334.940†	275.2	97.3	0.2152 µg/L	0.2152 ppb	16:46:47
2	Tl 190.801†	-21.7	1.0	1.2441 µg/L	1.2441 ppb	16:47:08
2	U 409.014†	-34.6	42.8	3.5596 µg/L	3.5596 ppb	16:46:47
2	V 292.402†	-47.6	-2.4	-0.0159 µg/L	-0.0159 ppb	16:46:47
2	Zn 213.857†	557.8	17.6	0.4155 µg/L	0.4155 ppb	16:47:08
3	Sc RADIAL	56103.5	56103.5	99.3 %		16:45:39
3	Al 396.153Radial†	-12.8	-20.2	-14.109 µg/L	-14.109 ppb	16:45:39
3	Ca 317.933Radial†	191.0	-18.9	-16.130 µg/L	-16.130 ppb	16:46:00
3	Fe 238.204 Radial†	17.4	1.0	7.6890 µg/L	7.6890 ppb	16:46:00
3	K 766.490 Radial†	173.9	10.1	6.6116 µg/L	6.6116 ppb	16:45:39
3	Mg 279.077 IEC†	10.0	-2.8	-24.916 µg/L	-24.916 ppb	16:46:00
3	Na 589.592 Radial†	509.0	40.4	12.402 µg/L	12.402 ppb	16:45:39
3	Sr 421.552†	51.1	22.6	0.2086 µg/L	0.2086 ppb	16:45:39
3	Sc 361.383	1979825.1	1979825.1	100.85 %		16:47:14
3	Y 371.029	1367032.8	1367032.8	101.06 %		16:47:14
3	Ag 328.068†	-365.2	39.5	0.2926 µg/L	0.2926 ppb	16:47:20
3	As 188.979†	6.4	6.8	12.172 µg/L	12.172 ppb	16:47:40
3	B 249.677†	398.6	11.1	0.4486 µg/L	0.4486 ppb	16:47:40
3	Ba 233.527†	-12.4	4.8	0.1152 µg/L	0.1152 ppb	16:47:40
3	Be 313.107†	-2652.0	226.1	0.1341 µg/L	0.1341 ppb	16:47:20
3	Cd 226.502†	-131.0	11.8	0.2924 µg/L	0.2924 ppb	16:47:40
3	Co 228.616†	3.8	1.9	0.0848 µg/L	0.0848 ppb	16:47:40
3	Cr 267.716†	-32.1	18.5	0.3716 µg/L	0.3716 ppb	16:47:40
3	Cu 324.752†	2543.2	-22.0	-0.1426 µg/L	-0.1426 ppb	16:47:20
3	Mn 257.610†	-230.0	28.0	0.0896 µg/L	0.0896 ppb	16:47:40
3	Mo 202.031†	7.5	12.8	1.2495 µg/L	1.2495 ppb	16:47:40
3	Ni 231.604†	307.7	-7.2	-0.3603 µg/L	-0.3603 ppb	16:47:40
3	P 214.914†	16.4	0.9	1.7842 µg/L	1.7842 ppb	16:47:40
3	Pb 220.353†	91.4	-0.3	-0.0769 µg/L	-0.0769 ppb	16:47:40
3	S 181.975 Axial†	16.1	-2.9	-12.216 µg/L	-12.216 ppb	16:47:40
3	Sb 206.836†	18.4	-4.3	-3.9156 µg/L	-3.9156 ppb	16:47:40
3	Se 196.026†	19.5	-0.0	0.0313 µg/L	0.0313 ppb	16:47:40
3	SiO2†	1408.7	5.2	1.0280 µg/L	1.0280 ppb	16:47:20
3	Si 251.611†	328.7	15.3	1.1614 µg/L	1.1614 ppb	16:47:40
3	Sn 189.927†	7.2	6.8	2.8616 µg/L	2.8616 ppb	16:47:40
3	Ti 334.940†	264.4	87.1	0.1944 µg/L	0.1944 ppb	16:47:20
3	Tl 190.801†	-17.8	4.8	6.2130 µg/L	6.2130 ppb	16:47:40
3	U 409.014†	44.4	121.1	10.062 µg/L	10.062 ppb	16:47:20
3	V 292.402†	-48.6	-3.5	-0.0118 µg/L	-0.0118 ppb	16:47:20
3	Zn 213.857†	546.8	7.8	0.1863 µg/L	0.1863 ppb	16:47:40

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1984294.3	101.08 %	0.247			0.24%
Sc RADIAL	56394.2	99.8 %	0.48			0.48%
Y 371.029	1368875.1	101.19 %	0.208			0.21%
Ag 328.068†	-15.5	-0.1144 µg/L	0.35487	-0.1144 ppb	0.35487	310.31%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-18.4	-12.796 µg/L	1.1373	-12.796 ppb	1.1373	8.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.1	-0.1476 µg/L	10.89157	-0.1476 ppb	10.89157	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	17.5	0.7150 µg/L	0.25726	0.7150 ppb	0.25726	35.98%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	5.3	0.1268 µg/L	0.15478	0.1268 ppb	0.15478	122.10%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	181.4	0.1076 µg/L	0.02612	0.1076 ppb	0.02612	24.28%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-18.1	-15.439 µg/L	5.3071	-15.439 ppb	5.3071	34.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	8.8	0.2189 µg/L	0.21153	0.2189 ppb	0.21153	96.62%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	2.1	0.0941 µg/L	0.14201	0.0941 ppb	0.14201	150.94%

Cr	267.716†	QC value within limits for Co 228.616	Recovery = Not calculated		
		9.3	0.1865 µg/L	0.29770	0.1865 ppb
				0.29770	159.64%
Cu	324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated		
		4.2	0.0273 µg/L	0.19878	0.0273 ppb
				0.19878	728.06%
Fe	238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated		
		-0.1	-0.6936 µg/L	7.61586	-0.6936 ppb
				7.61586	>999.9%
K	766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
		23.2	15.142 µg/L	16.8219	15.142 ppb
				16.8219	111.09%
Mg	279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated		
		-2.8	-25.125 µg/L	21.0915	-25.125 ppb
				21.0915	83.94%
Mn	257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
		30.6	0.0966 µg/L	0.00647	0.0966 ppb
				0.00647	6.70%
Mo	202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated		
		8.1	0.7939 µg/L	0.39671	0.7939 ppb
				0.39671	49.97%
Na	589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated		
		32.7	10.051 µg/L	4.0953	10.051 ppb
				4.0953	40.74%
Ni	231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
		-8.1	-0.4045 µg/L	0.10569	-0.4045 ppb
				0.10569	26.13%
P	214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated		
		-1.0	-2.0175 µg/L	5.23620	-2.0175 ppb
				5.23620	259.54%
Pb	220.353†	QC value within limits for P 214.914	Recovery = Not calculated		
		-4.3	-1.0543 µg/L	1.05859	-1.0543 ppb
				1.05859	100.40%
S	181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated		
		-2.5	-10.525 µg/L	6.4558	-10.525 ppb
				6.4558	61.34%
Sb	206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated		
		-2.7	-2.4867 µg/L	1.49921	-2.4867 ppb
				1.49921	60.29%
Se	196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated		
		-3.2	-4.4677 µg/L	4.65886	-4.4677 ppb
				4.65886	104.28%
SiO2†		QC value within limits for Se 196.026	Recovery = Not calculated		
		22.4	4.4213 µg/L	3.83941	4.4213 ppb
				3.83941	86.84%
Si	251.611†	QC value within limits for SiO2	Recovery = Not calculated		
		14.2	1.0825 µg/L	0.30758	1.0825 ppb
				0.30758	28.41%
Sn	189.927†	QC value within limits for Si 251.611	Recovery = Not calculated		
		5.5	2.3235 µg/L	0.92554	2.3235 ppb
				0.92554	39.83%
Sr	421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated		
		34.1	0.3146 µg/L	0.13296	0.3146 ppb
				0.13296	42.26%
Ti	334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated		
		73.7	0.1647 µg/L	0.07028	0.1647 ppb
				0.07028	42.68%
Tl	190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated		
		1.7	2.2114 µg/L	3.61632	2.2114 ppb
				3.61632	163.53%
U	409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated		
		43.5	3.6126 µg/L	6.42347	3.6126 ppb
				6.42347	177.81%
V	292.402†	QC value within limits for U 409.014	Recovery = Not calculated		
		8.7	0.0949 µg/L	0.18839	0.0949 ppb
				0.18839	198.45%
Zn	213.857†	QC value within limits for V 292.402	Recovery = Not calculated		
		13.0	0.3088 µg/L	0.11540	0.3088 ppb
				0.11540	37.37%
		QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 2/19/2010 16:47:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56282.3	56282.3	99.6 %		16:48:22
1	Al 396.153Radial†	298.2	292.0	202.91 µg/L	202.91 ppb	16:48:22
1	Ca 317.933Radial†	429.4	219.7	187.68 µg/L	187.68 ppb	16:48:43
1	Fe 238.204 Radial†	29.6	13.1	103.39 µg/L	103.39 ppb	16:48:43
1	K 766.490 Radial†	342.0	178.3	116.45 µg/L	116.45 ppb	16:48:22
1	Mg 279.077 IEC†	44.3	31.6	282.85 µg/L	282.85 ppb	16:48:43
1	Na 589.592 Radial†	1474.0	1007.4	309.41 µg/L	309.41 ppb	16:48:22
1	Sr 421.552†	600.8	574.3	5.2980 µg/L	5.2980 ppb	16:48:22
1	Sc 361.383	1977761.8	1977761.8	100.75 %		16:49:45
1	Y 371.029	1365399.5	1365399.5	100.93 %		16:49:45
1	Ag 328.068†	258.4	658.1	4.9148 µg/L	4.9148 ppb	16:49:50
1	As 188.979†	15.7	16.1	28.782 µg/L	28.782 ppb	16:50:11
1	B 249.677†	1617.1	1221.0	49.720 µg/L	49.720 ppb	16:49:50
1	Ba 233.527†	202.7	218.3	5.2492 µg/L	5.2492 ppb	16:50:11
1	Be 313.107†	5999.9	8811.2	5.2276 µg/L	5.2276 ppb	16:49:50
1	Cd 226.502†	69.7	210.9	5.2540 µg/L	5.2540 ppb	16:50:11
1	Co 228.616†	98.7	96.0	4.3479 µg/L	4.3479 ppb	16:50:11
1	Cr 267.716†	241.4	290.0	5.8279 µg/L	5.8279 ppb	16:49:50
1	Cu 324.752†	4202.8	1627.9	10.640 µg/L	10.640 ppb	16:49:50
1	Mn 257.610†	3188.0	3420.5	10.714 µg/L	10.714 ppb	16:49:50
1	Mo 202.031†	99.0	103.6	10.146 µg/L	10.146 ppb	16:50:11
1	Ni 231.604†	418.0	102.5	5.1075 µg/L	5.1075 ppb	16:50:11
1	P 214.914†	98.6	82.5	162.32 µg/L	162.32 ppb	16:50:11
1	Pb 220.353†	137.2	45.3	10.965 µg/L	10.965 ppb	16:50:11
1	S 181.975 Axial†	42.3	23.0	95.542 µg/L	95.542 ppb	16:50:11
1	Sb 206.836†	37.6	14.8	13.659 µg/L	13.659 ppb	16:50:11
1	Se 196.026†	37.4	17.8	24.952 µg/L	24.952 ppb	16:50:11
1	SiO2†	2505.0	1094.9	216.12 µg/L	216.12 ppb	16:49:50
1	Si 251.611†	1649.6	1326.8	100.86 µg/L	100.86 ppb	16:50:11
1	Sn 189.927†	23.4	22.9	9.6771 µg/L	9.6771 ppb	16:50:11
1	Ti 334.940†	2480.4	2287.0	5.0399 µg/L	5.0399 ppb	16:49:50
1	Tl 190.801†	-7.5	15.0	19.606 µg/L	19.606 ppb	16:50:11
1	U 409.014†	617.0	689.5	57.259 µg/L	57.259 ppb	16:49:50
1	V 292.402†	481.6	522.7	5.2575 µg/L	5.2575 ppb	16:49:50
1	Zn 213.857†	992.7	450.9	10.519 µg/L	10.519 ppb	16:50:11
2	Sc RADIAL	56210.7	56210.7	99.5 %		16:48:48
2	Al 396.153Radial†	273.4	267.4	185.81 µg/L	185.81 ppb	16:48:48
2	Ca 317.933Radial†	426.2	217.1	185.45 µg/L	185.45 ppb	16:49:08
2	Fe 238.204 Radial†	28.4	12.0	94.492 µg/L	94.492 ppb	16:49:08
2	K 766.490 Radial†	411.4	248.5	162.28 µg/L	162.28 ppb	16:48:48
2	Mg 279.077 IEC†	50.3	37.8	337.62 µg/L	337.62 ppb	16:49:08
2	Na 589.592 Radial†	1464.1	999.4	306.94 µg/L	306.94 ppb	16:48:48
2	Sr 421.552†	574.2	548.3	5.0581 µg/L	5.0581 ppb	16:48:48
2	Sc 361.383	1972692.6	1972692.6	100.49 %		16:50:17
2	Y 371.029	1361966.2	1361966.2	100.68 %		16:50:17
2	Ag 328.068†	270.6	670.9	5.0087 µg/L	5.0087 ppb	16:50:23
2	As 188.979†	17.9	18.3	32.707 µg/L	32.707 ppb	16:50:43
2	B 249.677†	1623.8	1231.8	50.165 µg/L	50.165 ppb	16:50:23
2	Ba 233.527†	197.6	213.7	5.1395 µg/L	5.1395 ppb	16:50:43
2	Be 313.107†	5881.6	8708.7	5.1667 µg/L	5.1667 ppb	16:50:23
2	Cd 226.502†	72.2	213.5	5.3190 µg/L	5.3190 ppb	16:50:43
2	Co 228.616†	112.6	110.1	4.9856 µg/L	4.9856 ppb	16:50:43
2	Cr 267.716†	212.6	261.9	5.2641 µg/L	5.2641 ppb	16:50:23
2	Cu 324.752†	4135.5	1571.7	10.273 µg/L	10.273 ppb	16:50:23
2	Mn 257.610†	3139.9	3380.7	10.586 µg/L	10.586 ppb	16:50:23
2	Mo 202.031†	100.4	105.3	10.314 µg/L	10.314 ppb	16:50:43
2	Ni 231.604†	409.7	95.3	4.7480 µg/L	4.7480 ppb	16:50:43
2	P 214.914†	98.3	82.5	162.33 µg/L	162.33 ppb	16:50:43
2	Pb 220.353†	137.5	45.9	11.123 µg/L	11.123 ppb	16:50:43

2	S 181.975 Axial†	44.4	25.2	104.52 µg/L	104.52 ppb	16:50:43
2	Sb 206.836†	32.9	10.2	9.4639 µg/L	9.4639 ppb	16:50:43
2	Se 196.026†	35.2	15.7	21.973 µg/L	21.973 ppb	16:50:43
2	SiO2†	2523.6	1119.7	221.02 µg/L	221.02 ppb	16:50:23
2	Si 251.611†	1635.2	1316.7	100.10 µg/L	100.10 ppb	16:50:43
2	Sn 189.927†	26.0	25.5	10.767 µg/L	10.767 ppb	16:50:43
2	Ti 334.940†	2526.0	2338.7	5.1499 µg/L	5.1499 ppb	16:50:23
2	Tl 190.801†	-4.6	17.8	23.319 µg/L	23.319 ppb	16:50:43
2	U 409.014†	591.4	665.6	55.280 µg/L	55.280 ppb	16:50:23
2	V 292.402†	473.1	515.6	5.1847 µg/L	5.1847 ppb	16:50:23
2	Zn 213.857†	977.2	438.1	10.216 µg/L	10.216 ppb	16:50:43
3	Sc RADIAL	56270.8	56270.8	99.6 %		16:49:14
3	Al 396.153Radial†	299.9	293.7	204.14 µg/L	204.14 ppb	16:49:14
3	Ca 317.933Radial†	434.4	224.8	192.04 µg/L	192.04 ppb	16:49:35
3	Fe 238.204 Radial†	29.7	13.3	104.87 µg/L	104.87 ppb	16:49:35
3	K 766.490 Radial†	455.9	292.7	191.16 µg/L	191.16 ppb	16:49:14
3	Mg 279.077 IEC†	45.6	33.0	295.03 µg/L	295.03 ppb	16:49:35
3	Na 589.592 Radial†	1506.5	1040.3	319.53 µg/L	319.53 ppb	16:49:14
3	Sr 421.552†	597.6	571.2	5.2696 µg/L	5.2696 ppb	16:49:14
3	Sc 361.383	1984220.0	1984220.0	101.07 %		16:50:49
3	Y 371.029	1369121.2	1369121.2	101.21 %		16:50:49
3	Ag 328.068†	201.6	601.1	4.4889 µg/L	4.4889 ppb	16:50:55
3	As 188.979†	12.2	12.5	22.435 µg/L	22.435 ppb	16:51:15
3	B 249.677†	1528.3	1127.9	45.924 µg/L	45.924 ppb	16:50:55
3	Ba 233.527†	159.9	175.2	4.2153 µg/L	4.2153 ppb	16:51:15
3	Be 313.107†	4886.5	7690.3	4.5625 µg/L	4.5625 ppb	16:50:55
3	Cd 226.502†	36.1	177.4	4.4177 µg/L	4.4177 ppb	16:51:15
3	Co 228.616†	97.9	94.9	4.2983 µg/L	4.2983 ppb	16:51:15
3	Cr 267.716†	217.3	265.4	5.3332 µg/L	5.3332 ppb	16:50:55
3	Cu 324.752†	4009.3	1423.0	9.3030 µg/L	9.3030 ppb	16:50:55
3	Mn 257.610†	2806.1	3032.2	9.4977 µg/L	9.4977 ppb	16:50:55
3	Mo 202.031†	85.5	90.0	8.8152 µg/L	8.8152 ppb	16:51:15
3	Ni 231.604†	395.2	78.7	3.9181 µg/L	3.9181 ppb	16:51:15
3	P 214.914†	81.4	65.2	128.29 µg/L	128.29 ppb	16:51:15
3	Pb 220.353†	131.5	39.1	9.4710 µg/L	9.4710 ppb	16:51:15
3	S 181.975 Axial†	39.1	19.8	81.981 µg/L	81.981 ppb	16:51:15
3	Sb 206.836†	33.0	10.1	9.3652 µg/L	9.3652 ppb	16:51:15
3	Se 196.026†	36.9	17.2	24.099 µg/L	24.099 ppb	16:51:15
3	SiO2†	2440.0	1022.5	201.82 µg/L	201.82 ppb	16:50:55
3	Si 251.611†	1427.0	1101.2	83.718 µg/L	83.718 ppb	16:51:15
3	Sn 189.927†	23.7	23.1	9.7555 µg/L	9.7555 ppb	16:51:15
3	Ti 334.940†	2205.8	2007.3	4.4203 µg/L	4.4203 ppb	16:50:55
3	Tl 190.801†	-9.0	13.5	17.705 µg/L	17.705 ppb	16:51:15
3	U 409.014†	550.5	621.7	51.630 µg/L	51.630 ppb	16:50:55
3	V 292.402†	420.4	460.6	4.6353 µg/L	4.6353 ppb	16:50:55
3	Zn 213.857†	910.8	366.7	8.5490 µg/L	8.5490 ppb	16:51:15

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1978224.8	100.77 %		0.294			0.29%
Sc RADIAL	56254.6	99.6 %		0.07			0.07%
Y 371.029	1365495.6	100.94 %		0.265			0.26%
Ag 328.068†	643.3	4.8041 µg/L		0.27699	4.8041 ppb	0.27699	5.77%
QC value within limits for Ag 328.068 Recovery = 96.08%							
Al 396.153Radial†	284.4	197.62 µg/L		10.244	197.62 ppb	10.244	5.18%
QC value within limits for Al 396.153Radial Recovery = 98.81%							
As 188.979†	15.6	27.975 µg/L		5.1834	27.975 ppb	5.1834	18.53%
QC value within limits for As 188.979 Recovery = 93.25%							
B 249.677†	1193.6	48.603 µg/L		2.3307	48.603 ppb	2.3307	4.80%
QC value within limits for B 249.677 Recovery = 97.21%							
Ba 233.527†	202.4	4.8680 µg/L		0.56789	4.8680 ppb	0.56789	11.67%
QC value within limits for Ba 233.527 Recovery = 97.36%							
Be 313.107†	8403.4	4.9856 µg/L		0.36766	4.9856 ppb	0.36766	7.37%
QC value within limits for Be 313.107 Recovery = 99.71%							
Ca 317.933Radial†	220.5	188.39 µg/L		3.356	188.39 ppb	3.356	1.78%
QC value within limits for Ca 317.933Radial Recovery = 94.19%							
Cd 226.502†	200.6	4.9969 µg/L		0.50267	4.9969 ppb	0.50267	10.06%
QC value within limits for Cd 226.502 Recovery = 99.94%							
Co 228.616†	100.4	4.5440 µg/L		0.38331	4.5440 ppb	0.38331	8.44%

QC value within limits for Co 228.616 Recovery = 90.88%							
Cr 267.716†	272.4	5.4751 µg/L	0.30749	5.4751 ppb	0.30749	5.62%	
QC value within limits for Cr 267.716 Recovery = 109.50%							
Cu 324.752†	1540.9	10.072 µg/L	0.6909	10.072 ppb	0.6909	6.86%	
QC value within limits for Cu 324.752 Recovery = 100.72%							
Fe 238.204 Radial†	12.8	100.92 µg/L	5.613	100.92 ppb	5.613	5.56%	
QC value within limits for Fe 238.204 Radial Recovery = 100.92%							
K 766.490 Radial†	239.8	156.63 µg/L	37.674	156.63 ppb	37.674	24.05%	
QC value within limits for K 766.490 Radial Recovery = 104.42%							
Mg 279.077 IEC†	34.1	305.17 µg/L	28.759	305.17 ppb	28.759	9.42%	
QC value within limits for Mg 279.077 IEC Recovery = 101.72%							
Mn 257.610†	3277.8	10.266 µg/L	0.6682	10.266 ppb	0.6682	6.51%	
QC value within limits for Mn 257.610 Recovery = 102.66%							
Mo 202.031†	99.6	9.7581 µg/L	0.82093	9.7581 ppb	0.82093	8.41%	
QC value within limits for Mo 202.031 Recovery = 97.58%							
Na 589.592 Radial†	1015.7	311.96 µg/L	6.671	311.96 ppb	6.671	2.14%	
QC value within limits for Na 589.592 Radial Recovery = 103.99%							
Ni 231.604†	92.2	4.5912 µg/L	0.61004	4.5912 ppb	0.61004	13.29%	
QC value within limits for Ni 231.604 Recovery = 91.82%							
P 214.914†	76.7	150.98 µg/L	19.653	150.98 ppb	19.653	13.02%	
QC value within limits for P 214.914 Recovery = 100.65%							
Pb 220.353†	43.4	10.520 µg/L	0.9115	10.520 ppb	0.9115	8.67%	
QC value within limits for Pb 220.353 Recovery = 105.20%							
S 181.975 Axial†	22.7	94.016 µg/L	11.3485	94.016 ppb	11.3485	12.07%	
QC value within limits for S 181.975 Axial Recovery = 94.02%							
Sb 206.836†	11.7	10.829 µg/L	2.4509	10.829 ppb	2.4509	22.63%	
QC value within limits for Sb 206.836 Recovery = 108.29%							
Se 196.026†	16.9	23.675 µg/L	1.5343	23.675 ppb	1.5343	6.48%	
QC value within limits for Se 196.026 Recovery = 78.92%							
SiO2†	1079.0	212.99 µg/L	9.975	212.99 ppb	9.975	4.68%	
QC value within limits for SiO2 Recovery = 99.99%							
Si 251.611†	1248.2	94.893 µg/L	9.6851	94.893 ppb	9.6851	10.21%	
QC value within limits for Si 251.611 Recovery = 94.89%							
Sn 189.927†	23.8	10.067 µg/L	0.6079	10.067 ppb	0.6079	6.04%	
QC value within limits for Sn 189.927 Recovery = 100.67%							
Sr 421.552†	564.6	5.2086 µg/L	0.13109	5.2086 ppb	0.13109	2.52%	
QC value within limits for Sr 421.552 Recovery = 104.17%							
Ti 334.940†	2211.0	4.8701 µg/L	0.39334	4.8701 ppb	0.39334	8.08%	
QC value within limits for Ti 334.940 Recovery = 97.40%							
Tl 190.801†	15.4	20.210 µg/L	2.8552	20.210 ppb	2.8552	14.13%	
QC value within limits for Tl 190.801 Recovery = 101.05%							
U 409.014†	659.0	54.723 µg/L	2.8553	54.723 ppb	2.8553	5.22%	
QC value within limits for U 409.014 Recovery = 109.45%							
V 292.402†	499.7	5.0258 µg/L	0.34018	5.0258 ppb	0.34018	6.77%	
QC value within limits for V 292.402 Recovery = 100.52%							
Zn 213.857†	418.6	9.7614 µg/L	1.06081	9.7614 ppb	1.06081	10.87%	
QC value within limits for Zn 213.857 Recovery = 97.61%							

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: ICSA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 103

Date Collected: 2/19/2010 16:51:24

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55393.6	55393.6	98.0 %		16:52:06
1	Al 396.153Radial†	724194.0	738594.2	513810 µg/L	513810 ppb	16:52:00
1	Ca 317.933Radial†	560588.9	571530.4	488190 µg/L	488190 ppb	16:52:00
1	Fe 238.204 Radial†	23830.6	24288.1	191560 µg/L	191560 ppb	16:52:06
1	K 766.490 Radial†	115.1	-47.6	-31.114 µg/L	-31.114 ppb	16:52:06
1	Mg 279.077 IEC†	54305.7	55373.3	494780 µg/L	494780 ppb	16:52:06
1	Na 589.592 Radial†	579.7	119.1	36.566 µg/L	36.566 ppb	16:52:06
1	Sr 421.552†	417.7	397.2	3.6640 µg/L	3.6640 ppb	16:52:06
1	Sc 361.383	1850788.2	1850788.2	94.278 %		16:52:38
1	Y 371.029	1267800.9	1267800.9	93.720 %		16:52:38
1	Ag 328.068†	-2693.6	-2455.5	-6.2926 µg/L	-6.2926 ppb	16:52:44
1	As 188.979†	-3.5	-3.2	-20.025 µg/L	-20.025 ppb	16:53:05
1	B 249.677†	871.2	539.9	-77.949 µg/L	-77.949 ppb	16:52:44
1	Ba 233.527†	294.9	329.9	7.8736 µg/L	7.8736 ppb	16:53:05
1	Be 313.107†	-3450.2	-803.9	-0.4876 µg/L	-0.4876 ppb	16:52:44
1	Cd 226.502†	449.3	618.2	-6.2337 µg/L	-6.2337 ppb	16:53:05
1	Co 228.616†	61.1	62.9	2.7806 µg/L	2.7806 ppb	16:53:05
1	Cr 267.716†	-66.1	-19.8	-0.4132 µg/L	-0.4132 ppb	16:53:05
1	Cu 324.752†	-1734.2	-4383.2	-1.9848 µg/L	-1.9848 ppb	16:52:44
1	Mn 257.610†	821.6	1127.5	9.2085 µg/L	9.2085 ppb	16:52:44
1	Mo 202.031†	-118.4	-120.2	-4.4913 µg/L	-4.4913 ppb	16:53:05
1	Ni 231.604†	163.0	-139.5	-4.4672 µg/L	-4.4672 ppb	16:53:05
1	P 214.914†	72.2	61.2	116.25 µg/L	116.25 ppb	16:53:05
1	Pb 220.353†	39.4	-49.1	9.0511 µg/L	9.0511 ppb	16:53:05
1	S 181.975 Axial†	32.2	15.3	63.310 µg/L	63.310 ppb	16:53:05
1	Sb 206.836†	57.5	38.5	-7.3305 µg/L	-7.3305 ppb	16:53:05
1	Se 196.026†	11.6	-7.0	-62.783 µg/L	-62.783 ppb	16:53:05
1	SiO2†	1235.7	-80.9	-15.963 µg/L	-15.963 ppb	16:53:05
1	Si 251.611†	441.8	157.9	12.007 µg/L	12.007 ppb	16:53:05
1	Sn 189.927†	-66.4	-70.8	5.6696 µg/L	5.6696 ppb	16:53:05
1	Ti 334.940†	11832.7	12375.9	-3.9147 µg/L	-3.9147 ppb	16:52:44
1	Tl 190.801†	-42.3	-22.5	-8.4040 µg/L	-8.4040 ppb	16:53:05
1	U 409.014†	-59.0	14.5	-55.197 µg/L	-55.197 ppb	16:52:44
1	V 292.402†	-2553.4	-2663.6	-3.5017 µg/L	-3.5017 ppb	16:52:44
1	Zn 213.857†	1634.5	1199.3	-8.9501 µg/L	-8.9501 ppb	16:53:05
2	Sc RADIAL	55011.0	55011.0	97.4 %		16:52:17
2	Al 396.153Radial†	723719.7	743244.2	517040 µg/L	517040 ppb	16:52:11
2	Ca 317.933Radial†	561511.7	576454.6	492400 µg/L	492400 ppb	16:52:11
2	Fe 238.204 Radial†	23613.9	24234.6	191140 µg/L	191140 ppb	16:52:17
2	K 766.490 Radial†	128.3	-33.2	-21.699 µg/L	-21.699 ppb	16:52:17
2	Mg 279.077 IEC†	53736.1	55173.5	492990 µg/L	492990 ppb	16:52:17
2	Na 589.592 Radial†	541.6	84.0	25.796 µg/L	25.796 ppb	16:52:17
2	Sr 421.552†	414.5	396.8	3.6609 µg/L	3.6609 ppb	16:52:17
2	Sc 361.383	1848725.6	1848725.6	94.173 %		16:53:11
2	Y 371.029	1266302.7	1266302.7	93.609 %		16:53:11
2	Ag 328.068†	-2764.2	-2533.7	-6.8956 µg/L	-6.8956 ppb	16:53:16
2	As 188.979†	-19.7	-20.5	-51.199 µg/L	-51.199 ppb	16:53:37
2	B 249.677†	821.6	488.3	-79.833 µg/L	-79.833 ppb	16:53:16
2	Ba 233.527†	289.2	324.1	7.7351 µg/L	7.7351 ppb	16:53:37
2	Be 313.107†	-3507.9	-869.3	-0.5266 µg/L	-0.5266 ppb	16:53:16
2	Cd 226.502†	439.6	608.5	-6.4301 µg/L	-6.4301 ppb	16:53:37
2	Co 228.616†	46.3	47.3	2.0733 µg/L	2.0733 ppb	16:53:37
2	Cr 267.716†	-55.1	-8.1	-0.1798 µg/L	-0.1798 ppb	16:53:37
2	Cu 324.752†	-1747.2	-4399.1	-2.1470 µg/L	-2.1470 ppb	16:53:16
2	Mn 257.610†	693.8	992.7	8.8018 µg/L	8.8018 ppb	16:53:16
2	Mo 202.031†	-103.9	-105.0	-3.0206 µg/L	-3.0206 ppb	16:53:37
2	Ni 231.604†	140.3	-163.4	-5.6612 µg/L	-5.6612 ppb	16:53:37
2	P 214.914†	95.8	86.4	167.33 µg/L	167.33 ppb	16:53:37
2	Pb 220.353†	25.6	-63.7	5.6987 µg/L	5.6987 ppb	16:53:37

2	S 181.975 Axial†	46.7	30.7	127.27 µg/L	127.27 ppb	16:53:37
2	Sb 206.836†	44.2	24.4	-20.582 µg/L	-20.582 ppb	16:53:37
2	Se 196.026†	15.1	-3.2	-58.240 µg/L	-58.240 ppb	16:53:37
2	SiO2†	1212.8	-103.8	-20.481 µg/L	-20.481 ppb	16:53:37
2	Si 251.611†	449.3	166.5	12.657 µg/L	12.657 ppb	16:53:37
2	Sn 189.927†	-68.4	-73.0	4.5450 µg/L	4.5450 ppb	16:53:37
2	Ti 334.940†	12102.5	12676.3	-3.0417 µg/L	-3.0417 ppb	16:53:16
2	Tl 190.801†	-37.0	-17.0	-1.3751 µg/L	-1.3751 ppb	16:53:37
2	U 409.014†	-33.8	41.2	-53.185 µg/L	-53.185 ppb	16:53:16
2	V 292.402†	-2512.7	-2623.4	-3.1453 µg/L	-3.1453 ppb	16:53:16
2	Zn 213.857†	1609.3	1174.4	-9.4073 µg/L	-9.4073 ppb	16:53:37
3	Sc RADIAL	55087.9	55087.9	97.5 %		16:52:28
3	Al 396.153Radial†	720131.5	738527.0	513760 µg/L	513760 ppb	16:52:23
3	Ca 317.933Radial†	556178.1	570179.9	487040 µg/L	487040 ppb	16:52:23
3	Fe 238.204 Radial†	23691.3	24280.2	191500 µg/L	191500 ppb	16:52:28
3	K 766.490 Radial†	149.7	-11.5	-7.5099 µg/L	-7.5099 ppb	16:52:28
3	Mg 279.077 IEC†	53963.6	55329.8	494390 µg/L	494390 ppb	16:52:28
3	Na 589.592 Radial†	551.3	93.2	28.624 µg/L	28.624 ppb	16:52:28
3	Sr 421.552†	418.9	400.8	3.6974 µg/L	3.6974 ppb	16:52:28
3	Sc 361.383	1849927.7	1849927.7	94.234 %		16:53:43
3	Y 371.029	1267002.1	1267002.1	93.661 %		16:53:43
3	Ag 328.068†	-2734.1	-2499.7	-6.6223 µg/L	-6.6223 ppb	16:53:49
3	As 188.979†	-9.3	-9.4	-31.056 µg/L	-31.056 ppb	16:54:09
3	B 249.677†	848.6	516.3	-78.878 µg/L	-78.878 ppb	16:53:49
3	Ba 233.527†	283.0	317.4	7.5725 µg/L	7.5725 ppb	16:54:09
3	Be 313.107†	-3473.1	-829.9	-0.5033 µg/L	-0.5033 ppb	16:53:49
3	Cd 226.502†	443.2	612.0	-6.3822 µg/L	-6.3822 ppb	16:54:09
3	Co 228.616†	37.7	38.1	1.6569 µg/L	1.6569 ppb	16:54:09
3	Cr 267.716†	-62.9	-16.3	-0.3442 µg/L	-0.3442 ppb	16:54:09
3	Cu 324.752†	-1721.6	-4370.7	-1.9119 µg/L	-1.9119 ppb	16:53:49
3	Mn 257.610†	731.2	1032.0	8.9167 µg/L	8.9167 ppb	16:53:49
3	Mo 202.031†	-107.8	-109.1	-3.4029 µg/L	-3.4029 ppb	16:54:09
3	Ni 231.604†	145.6	-157.8	-5.3810 µg/L	-5.3810 ppb	16:54:09
3	P 214.914†	108.6	100.0	193.00 µg/L	193.00 ppb	16:54:09
3	Pb 220.353†	37.4	-51.2	8.5535 µg/L	8.5535 ppb	16:54:09
3	S 181.975 Axial†	37.1	20.4	84.584 µg/L	84.584 ppb	16:54:09
3	Sb 206.836†	48.6	29.0	-15.889 µg/L	-15.889 ppb	16:54:09
3	Se 196.026†	35.7	18.5	-26.410 µg/L	-26.410 ppb	16:54:09
3	SiO2†	1232.2	-83.9	-16.565 µg/L	-16.565 ppb	16:54:09
3	Si 251.611†	426.5	142.0	10.792 µg/L	10.792 ppb	16:54:09
3	Sn 189.927†	-55.5	-59.3	10.507 µg/L	10.507 ppb	16:54:09
3	Ti 334.940†	12184.3	12754.8	-3.0642 µg/L	-3.0642 ppb	16:53:49
3	Tl 190.801†	-36.8	-16.7	-0.7208 µg/L	-0.7208 ppb	16:54:09
3	U 409.014†	-97.2	-26.0	-58.491 µg/L	-58.491 ppb	16:53:49
3	V 292.402†	-2526.9	-2636.8	-3.2422 µg/L	-3.2422 ppb	16:53:49
3	Zn 213.857†	1595.9	1159.1	-9.8646 µg/L	-9.8646 ppb	16:54:09

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1849813.8	94.228 %	0.0528			0.06%
Sc RADIAL	55164.1	97.6 %	0.36			0.37%
Y 371.029	1267035.2	93.663 %	0.0554			0.06%
Ag 328.068†	-2496.3	-6.6035 µg/L	0.30193	-6.6035 ppb	0.30193	4.57%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	740121.8	514870 µg/L	1881.2	514870 ppb	1881.2	0.37%
QC value within limits for Al 396.153Radial Recovery = 102.97%						
As 188.979†	-11.0	-34.093 µg/L	15.8073	-34.093 ppb	15.8073	46.36%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	514.9	-78.887 µg/L	0.9419	-78.887 ppb	0.9419	1.19%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	323.8	7.7271 µg/L	0.15071	7.7271 ppb	0.15071	1.95%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-834.4	-0.5058 µg/L	0.01964	-0.5058 ppb	0.01964	3.88%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	572721.6	489210 µg/L	2821.0	489210 ppb	2821.0	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.84%						
Cd 226.502†	612.9	-6.3487 µg/L	0.10242	-6.3487 ppb	0.10242	1.61%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	49.4	2.1702 µg/L	0.56812	2.1702 ppb	0.56812	26.18%

Cr	267.716†	-14.7	-0.3124 µg/L	0.11992	-0.3124 ppb	0.11992	38.39%
	QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu	324.752†	-4384.3	-2.0146 µg/L	0.12034	-2.0146 ppb	0.12034	5.97%
	QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe	238.204 Radial†	24267.6	191400 µg/L	227.6	191400 ppb	227.6	0.12%
	QC value within limits for Fe 238.204 Radial Recovery = 95.70%						
K	766.490 Radial†	-30.8	-20.107 µg/L	11.8821	-20.107 ppb	11.8821	59.09%
	QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg	279.077 IEC†	55292.2	494060 µg/L	938.7	494060 ppb	938.7	0.19%
	QC value within limits for Mg 279.077 IEC Recovery = 98.81%						
Mn	257.610†	1050.7	8.9756 µg/L	0.20969	8.9756 ppb	0.20969	2.34%
	QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo	202.031†	-111.4	-3.6383 µg/L	0.76308	-3.6383 ppb	0.76308	20.97%
	QC value within limits for Mo 202.031 Recovery = Not calculated						
Na	589.592 Radial†	98.7	30.329 µg/L	5.5836	30.329 ppb	5.5836	18.41%
	QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni	231.604†	-153.6	-5.1698 µg/L	0.62439	-5.1698 ppb	0.62439	12.08%
	QC value within limits for Ni 231.604 Recovery = Not calculated						
P	214.914†	82.5	158.86 µg/L	39.068	158.86 ppb	39.068	24.59%
	QC value within limits for P 214.914 Recovery = Not calculated						
Pb	220.353†	-54.7	7.7677 µg/L	1.80905	7.7677 ppb	1.80905	23.29%
	QC value within limits for Pb 220.353 Recovery = Not calculated						
S	181.975 Axial†	22.1	91.723 µg/L	32.5738	91.723 ppb	32.5738	35.51%
	QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb	206.836†	30.6	-14.600 µg/L	6.7191	-14.600 ppb	6.7191	46.02%
	QC value within limits for Sb 206.836 Recovery = Not calculated						
Se	196.026†	2.8	-49.144 µg/L	19.8190	-49.144 ppb	19.8190	40.33%
	QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†		-89.5	-17.670 µg/L	2.4533	-17.670 ppb	2.4533	13.88%
	QC value within limits for SiO2 Recovery = Not calculated						
Si	251.611†	155.5	11.818 µg/L	0.9466	11.818 ppb	0.9466	8.01%
	QC value within limits for Si 251.611 Recovery = Not calculated						
Sn	189.927†	-67.7	6.9072 µg/L	3.16787	6.9072 ppb	3.16787	45.86%
	QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr	421.552†	398.3	3.6741 µg/L	0.02024	3.6741 ppb	0.02024	0.55%
	QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti	334.940†	12602.3	-3.3402 µg/L	0.49765	-3.3402 ppb	0.49765	14.90%
	QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl	190.801†	-18.7	-3.4999 µg/L	4.25960	-3.4999 ppb	4.25960	121.70%
	QC value within limits for Tl 190.801 Recovery = Not calculated						
U	409.014†	9.9	-55.624 µg/L	2.6789	-55.624 ppb	2.6789	4.82%
	QC value within limits for U 409.014 Recovery = Not calculated						
V	292.402†	-2641.3	-3.2964 µg/L	0.18427	-3.2964 ppb	0.18427	5.59%
	QC value within limits for V 292.402 Recovery = Not calculated						
Zn	213.857†	1177.6	-9.4073 µg/L	0.45728	-9.4073 ppb	0.45728	4.86%
	QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.



Sequence No.: 10

Sample ID: ICSAB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 104

Date Collected: 2/19/2010 16:54:19

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55797.0	55797.0	98.8 %		16:54:58
1	Al 396.153Radial†	721688.4	730717.2	508320 µg/L	508320 ppb	16:54:53
1	Ca 317.933Radial†	559165.5	565955.4	483430 µg/L	483430 ppb	16:54:53
1	Fe 238.204 Radial†	23697.0	23977.1	189110 µg/L	189110 ppb	16:54:58
1	K 766.490 Radial†	7825.4	7758.4	5067.1 µg/L	5067.1 ppb	16:54:58
1	Mg 279.077 IEC†	54011.0	54674.5	488540 µg/L	488540 ppb	16:54:58
1	Na 589.592 Radial†	17079.2	16820.9	5166.4 µg/L	5166.4 ppb	16:54:58
1	Sr 421.552†	53653.0	54296.0	500.89 µg/L	500.89 ppb	16:54:58
1	Sc 361.383	1843700.1	1843700.1	93.917 %		16:55:33
1	Y 371.029	1261744.6	1261744.6	93.272 %		16:55:33
1	Ag 328.068†	30366.5	32735.0	257.65 µg/L	257.65 ppb	16:55:33
1	As 188.979†	267.3	285.0	495.71 µg/L	495.71 ppb	16:55:53
1	B 249.677†	12776.1	13219.5	440.90 µg/L	440.90 ppb	16:55:33
1	Ba 233.527†	19707.5	21001.1	505.07 µg/L	505.07 ppb	16:55:33
1	Be 313.107†	381967.5	409563.9	242.87 µg/L	242.87 ppb	16:55:33
1	Cd 226.502†	18000.5	19308.2	460.62 µg/L	460.62 ppb	16:55:33
1	Co 228.616†	9028.5	9611.4	434.60 µg/L	434.60 ppb	16:55:53
1	Cr 267.716†	22814.5	24342.6	489.24 µg/L	489.24 ppb	16:55:33
1	Cu 324.752†	76830.3	79263.0	543.67 µg/L	543.67 ppb	16:55:33
1	Mn 257.610†	145121.7	154777.5	490.29 µg/L	490.29 ppb	16:55:33
1	Mo 202.031†	4771.3	5085.6	505.20 µg/L	505.20 ppb	16:55:53
1	Ni 231.604†	8362.6	8591.9	430.24 µg/L	430.24 ppb	16:55:53
1	P 214.914†	1320.9	1391.1	2699.5 µg/L	2699.5 ppb	16:55:53
1	Pb 220.353†	1871.2	1901.4	483.01 µg/L	483.01 ppb	16:55:53
1	S 181.975 Axial†	648.6	671.7	2785.4 µg/L	2785.4 ppb	16:55:53
1	Sb 206.836†	575.1	589.8	502.04 µg/L	502.04 ppb	16:55:53
1	Se 196.026†	1623.8	1709.6	2348.3 µg/L	2348.3 ppb	16:55:53
1	SiO2†	53672.2	55757.1	11006 µg/L	11006 ppb	16:55:33
1	Si 251.611†	64106.8	67948.4	5165.6 µg/L	5165.6 ppb	16:55:33
1	Sn 189.927†	1083.9	1153.7	521.63 µg/L	521.63 ppb	16:55:53
1	Ti 334.940†	229038.7	243698.9	508.24 µg/L	508.24 ppb	16:55:33
1	Tl 190.801†	288.9	330.0	454.77 µg/L	454.77 ppb	16:55:53
1	U 409.014†	5773.2	6224.2	461.36 µg/L	461.36 ppb	16:55:33
1	V 292.402†	47456.1	50574.7	520.63 µg/L	520.63 ppb	16:55:33
1	Zn 213.857†	20837.2	21652.5	468.58 µg/L	468.58 ppb	16:55:33
2	Sc RADIAL	55348.5	55348.5	98.0 %		16:55:10
2	Al 396.153Radial†	722041.1	736998.6	512690 µg/L	512690 ppb	16:55:04
2	Ca 317.933Radial†	559699.2	571088.2	487810 µg/L	487810 ppb	16:55:04
2	Fe 238.204 Radial†	23398.1	23866.4	188240 µg/L	188240 ppb	16:55:10
2	K 766.490 Radial†	7752.4	7748.1	5060.4 µg/L	5060.4 ppb	16:55:10
2	Mg 279.077 IEC†	53665.0	54764.4	489350 µg/L	489350 ppb	16:55:10
2	Na 589.592 Radial†	16898.5	16776.6	5152.8 µg/L	5152.8 ppb	16:55:10
2	Sr 421.552†	53220.9	54295.2	500.88 µg/L	500.88 ppb	16:55:10
2	Sc 361.383	1828346.4	1828346.4	93.135 %		16:56:01
2	Y 371.029	1251250.1	1251250.1	92.496 %		16:56:01
2	Ag 328.068†	30001.6	32614.7	256.69 µg/L	256.69 ppb	16:56:01
2	As 188.979†	258.0	277.4	481.82 µg/L	481.82 ppb	16:56:21
2	B 249.677†	12695.1	13246.8	442.46 µg/L	442.46 ppb	16:56:01
2	Ba 233.527†	19356.4	20800.3	500.24 µg/L	500.24 ppb	16:56:01
2	Be 313.107†	377037.1	407685.5	241.76 µg/L	241.76 ppb	16:56:01
2	Cd 226.502†	17698.0	19144.3	456.64 µg/L	456.64 ppb	16:56:01
2	Co 228.616†	8995.7	9656.8	436.67 µg/L	436.67 ppb	16:56:21
2	Cr 267.716†	22554.0	24266.9	487.72 µg/L	487.72 ppb	16:56:01
2	Cu 324.752†	76157.1	79227.2	543.32 µg/L	543.32 ppb	16:56:01
2	Mn 257.610†	143300.8	154120.0	488.08 µg/L	488.08 ppb	16:56:01
2	Mo 202.031†	4737.2	5091.8	505.77 µg/L	505.77 ppb	16:56:21
2	Ni 231.604†	8356.6	8660.3	433.64 µg/L	433.64 ppb	16:56:21
2	P 214.914†	1314.8	1396.4	2712.1 µg/L	2712.1 ppb	16:56:21
2	Pb 220.353†	1869.4	1916.2	486.89 µg/L	486.89 ppb	16:56:21

2	S 181.975 Axial†	642.4	670.8	2782.0 µg/L	2782.0 ppb	16:56:21
2	Sb 206.836†	578.7	598.8	509.94 µg/L	509.94 ppb	16:56:21
2	Se 196.026†	1633.2	1734.3	2378.6 µg/L	2378.6 ppb	16:56:21
2	SiO2†	52972.0	55485.1	10952 µg/L	10952 ppb	16:56:01
2	Si 251.611†	63354.2	67713.7	5147.7 µg/L	5147.7 ppb	16:56:01
2	Sn 189.927†	1076.4	1155.4	522.48 µg/L	522.48 ppb	16:56:21
2	Ti 334.940†	226229.7	242730.8	506.11 µg/L	506.11 ppb	16:56:01
2	Tl 190.801†	294.9	339.0	466.26 µg/L	466.26 ppb	16:56:21
2	U 409.014†	5629.0	6121.0	452.64 µg/L	452.64 ppb	16:56:01
2	V 292.402†	46870.5	50370.2	518.52 µg/L	518.52 ppb	16:56:01
2	Zn 213.857†	20535.2	21514.5	465.32 µg/L	465.32 ppb	16:56:01
3	Sc RADIAL	55847.7	55847.7	98.9 %		16:55:21
3	Al 396.153Radial†	722897.9	731277.0	508700 µg/L	508700 ppb	16:55:15
3	Ca 317.933Radial†	559752.9	566035.4	483500 µg/L	483500 ppb	16:55:15
3	Fe 238.204 Radial†	23698.6	23957.0	188960 µg/L	188960 ppb	16:55:21
3	K 766.490 Radial†	7809.0	7734.7	5051.6 µg/L	5051.6 ppb	16:55:21
3	Mg 279.077 IEC†	54100.9	54715.7	488910 µg/L	488910 ppb	16:55:21
3	Na 589.592 Radial†	17037.2	16762.7	5148.5 µg/L	5148.5 ppb	16:55:21
3	Sr 421.552†	53557.3	54149.8	499.54 µg/L	499.54 ppb	16:55:21
3	Sc 361.383	1849513.8	1849513.8	94.213 %		16:56:29
3	Y 371.029	1265200.0	1265200.0	93.528 %		16:56:29
3	Ag 328.068†	30278.1	32539.5	256.19 µg/L	256.19 ppb	16:56:29
3	As 188.979†	249.4	265.2	460.15 µg/L	460.15 ppb	16:56:49
3	B 249.677†	12838.9	13243.4	441.96 µg/L	441.96 ppb	16:56:29
3	Ba 233.527†	19684.2	20910.3	502.89 µg/L	502.89 ppb	16:56:29
3	Be 313.107†	381877.8	408190.3	242.06 µg/L	242.06 ppb	16:56:29
3	Cd 226.502†	18049.5	19299.9	460.44 µg/L	460.44 ppb	16:56:29
3	Co 228.616†	9068.2	9623.2	435.15 µg/L	435.15 ppb	16:56:49
3	Cr 267.716†	22913.2	24371.1	489.81 µg/L	489.81 ppb	16:56:29
3	Cu 324.752†	76676.5	78842.6	540.91 µg/L	540.91 ppb	16:56:29
3	Mn 257.610†	145122.9	154293.0	488.74 µg/L	488.74 ppb	16:56:29
3	Mo 202.031†	4785.3	5084.6	505.09 µg/L	505.09 ppb	16:56:49
3	Ni 231.604†	8413.0	8617.4	431.51 µg/L	431.51 ppb	16:56:49
3	P 214.914†	1336.0	1402.7	2723.0 µg/L	2723.0 ppb	16:56:49
3	Pb 220.353†	1874.0	1898.2	482.26 µg/L	482.26 ppb	16:56:49
3	S 181.975 Axial†	650.5	671.5	2784.8 µg/L	2784.8 ppb	16:56:49
3	Sb 206.836†	579.0	592.1	504.11 µg/L	504.11 ppb	16:56:49
3	Se 196.026†	1645.5	1727.2	2372.2 µg/L	2372.2 ppb	16:56:49
3	SiO2†	53612.6	55514.2	10958 µg/L	10958 ppb	16:56:29
3	Si 251.611†	64125.9	67754.2	5150.8 µg/L	5150.8 ppb	16:56:29
3	Sn 189.927†	1079.8	1145.8	518.33 µg/L	518.33 ppb	16:56:49
3	Ti 334.940†	228839.3	242720.7	506.05 µg/L	506.05 ppb	16:56:29
3	Tl 190.801†	301.0	341.8	470.11 µg/L	470.11 ppb	16:56:49
3	U 409.014†	5634.4	6057.5	447.53 µg/L	447.53 ppb	16:56:29
3	V 292.402†	47572.3	50539.2	520.25 µg/L	520.25 ppb	16:56:29
3	Zn 213.857†	20782.8	21525.0	465.57 µg/L	465.57 ppb	16:56:29

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1840520.1	93.755 %	0.5571			0.59%
Sc RADIAL	55664.4	98.5 %	0.49			0.49%
Y 371.029	1259398.2	93.099 %	0.5370			0.58%
Ag 328.068†	32629.7	256.85 µg/L	0.742	256.85 ppb	0.742	0.29%
QC value within limits for Ag 328.068 Recovery = 102.74%						
Al 396.153Radial†	732997.6	509900 µg/L	2418.3	509900 ppb	2418.3	0.47%
QC value within limits for Al 396.153Radial Recovery = 101.98%						
As 188.979†	275.9	479.23 µg/L	17.921	479.23 ppb	17.921	3.74%
QC value within limits for As 188.979 Recovery = 95.85%						
B 249.677†	13236.6	441.77 µg/L	0.799	441.77 ppb	0.799	0.18%
QC value within limits for B 249.677 Recovery = 88.35%						
Ba 233.527†	20903.9	502.73 µg/L	2.416	502.73 ppb	2.416	0.48%
QC value within limits for Ba 233.527 Recovery = 100.55%						
Be 313.107†	408479.9	242.23 µg/L	0.577	242.23 ppb	0.577	0.24%
QC value within limits for Be 313.107 Recovery = 96.89%						
Ca 317.933Radial†	567693.0	484910 µg/L	2511.8	484910 ppb	2511.8	0.52%
QC value within limits for Ca 317.933Radial Recovery = 96.98%						
Cd 226.502†	19250.8	459.23 µg/L	2.249	459.23 ppb	2.249	0.49%
QC value within limits for Cd 226.502 Recovery = 91.85%						
Co 228.616†	9630.5	435.47 µg/L	1.070	435.47 ppb	1.070	0.25%

QC value within limits for Co 228.616 Recovery = 87.09%							
Cr 267.716†	24326.8	488.92 µg/L	1.082	488.92 ppb	1.082	0.22%	
QC value within limits for Cr 267.716 Recovery = 97.78%							
Cu 324.752†	79110.9	542.63 µg/L	1.505	542.63 ppb	1.505	0.28%	
QC value within limits for Cu 324.752 Recovery = 108.53%							
Fe 238.204 Radial†	23933.5	188770 µg/L	465.0	188770 ppb	465.0	0.25%	
QC value within limits for Fe 238.204 Radial Recovery = 94.39%							
K 766.490 Radial†	7747.0	5059.7 µg/L	7.77	5059.7 ppb	7.77	0.15%	
QC value within limits for K 766.490 Radial Recovery = 101.19%							
Mg 279.077 IEC†	54718.2	488940 µg/L	403.0	488940 ppb	403.0	0.08%	
QC value within limits for Mg 279.077 IEC Recovery = 97.79%							
Mn 257.610†	154396.8	489.04 µg/L	1.134	489.04 ppb	1.134	0.23%	
QC value within limits for Mn 257.610 Recovery = 97.81%							
Mo 202.031†	5087.3	505.36 µg/L	0.362	505.36 ppb	0.362	0.07%	
QC value within limits for Mo 202.031 Recovery = 101.07%							
Na 589.592 Radial†	16786.7	5155.9 µg/L	9.34	5155.9 ppb	9.34	0.18%	
QC value within limits for Na 589.592 Radial Recovery = 103.12%							
Ni 231.604†	8623.2	431.80 µg/L	1.714	431.80 ppb	1.714	0.40%	
QC value within limits for Ni 231.604 Recovery = 86.36%							
P 214.914†	1396.7	2711.6 µg/L	11.77	2711.6 ppb	11.77	0.43%	
QC value within limits for P 214.914 Recovery = 108.46%							
Pb 220.353†	1905.3	484.05 µg/L	2.482	484.05 ppb	2.482	0.51%	
QC value within limits for Pb 220.353 Recovery = 96.81%							
S 181.975 Axial†	671.3	2784.0 µg/L	1.83	2784.0 ppb	1.83	0.07%	
QC value within limits for S 181.975 Axial Recovery = 111.36%							
Sb 206.836†	593.6	505.36 µg/L	4.096	505.36 ppb	4.096	0.81%	
QC value within limits for Sb 206.836 Recovery = 101.07%							
Se 196.026†	1723.7	2366.3 µg/L	15.98	2366.3 ppb	15.98	0.68%	
QC value within limits for Se 196.026 Recovery = 94.65%							
SiO2†	55585.5	10972 µg/L	29.5	10972 ppb	29.5	0.27%	
QC value within limits for SiO2 Recovery = 102.59%							
Si 251.611†	67805.4	5154.7 µg/L	9.54	5154.7 ppb	9.54	0.19%	
QC value within limits for Si 251.611 Recovery = 103.09%							
Sn 189.927†	1151.6	520.81 µg/L	2.193	520.81 ppb	2.193	0.42%	
QC value within limits for Sn 189.927 Recovery = 104.16%							
Sr 421.552†	54247.0	500.44 µg/L	0.776	500.44 ppb	0.776	0.16%	
QC value within limits for Sr 421.552 Recovery = 100.09%							
Ti 334.940†	243050.1	506.80 µg/L	1.249	506.80 ppb	1.249	0.25%	
QC value within limits for Ti 334.940 Recovery = 101.36%							
Tl 190.801†	337.0	463.71 µg/L	7.981	463.71 ppb	7.981	1.72%	
QC value within limits for Tl 190.801 Recovery = 92.74%							
U 409.014†	6134.3	453.84 µg/L	6.995	453.84 ppb	6.995	1.54%	
QC value within limits for U 409.014 Recovery = 90.77%							
V 292.402†	50494.7	519.80 µg/L	1.121	519.80 ppb	1.121	0.22%	
QC value within limits for V 292.402 Recovery = 103.96%							
Zn 213.857†	21564.0	466.49 µg/L	1.813	466.49 ppb	1.813	0.39%	
QC value within limits for Zn 213.857 Recovery = 93.30%							

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: LR1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 105  
 Date Collected: 2/19/2010 16:56:59  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: LR1

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54748.6	54748.6	96.9 %		16:57:39
1	Al 396.153Radial†	706292.1	728823.1	507010 µg/L	507010 ppb	16:57:34
1	Ca 317.933Radial†	550897.7	568266.0	485400 µg/L	485400 ppb	16:57:34
1	Fe 238.204 Radial†	56162.0	57937.6	456950 µg/L	456950 ppb	16:57:39
1	K 766.490 Radial†	115.4	-45.9	-29.969 µg/L	-29.969 ppb	16:57:39
1	Mg 279.077 IEC†	52280.8	53936.3	481650 µg/L	481650 ppb	16:57:39
1	Na 589.592 Radial†	1551701.3	1600745.1	491660 µg/L	491660 ppb	16:57:34
1	Sr 421.552†	596.5	586.7	5.4124 µg/L	5.4124 ppb	16:57:39
1	Sc 361.383	1808982.1	1808982.1	92.148 %		16:58:15
1	Y 371.029	1229275.2	1229275.2	90.872 %		16:58:15
1	Ag 328.068†	-4982.3	-5005.2	-8.7931 µg/L	-8.7931 ppb	16:58:15
1	As 188.979†	-19.3	-20.5	-35.405 µg/L	-35.405 ppb	16:58:35
1	B 249.677†	1469.8	1210.9	-189.08 µg/L	-189.08 ppb	16:58:15
1	Ba 233.527†	599.8	668.0	15.898 µg/L	15.898 ppb	16:58:35
1	Be 313.107†	-11244.2	-9346.6	-5.5617 µg/L	-5.5617 ppb	16:58:15
1	Cd 226.502†	1210.5	1455.3	-15.352 µg/L	-15.352 ppb	16:58:15
1	Co 228.616†	210.6	226.6	10.160 µg/L	10.160 ppb	16:58:35
1	Cr 267.716†	45.2	99.4	1.9489 µg/L	1.9489 ppb	16:58:35
1	Cu 324.752†	-9617.8	-12981.1	-21.218 µg/L	-21.218 ppb	16:58:15
1	Mn 257.610†	-6155.9	-6424.4	21.370 µg/L	21.370 ppb	16:58:15
1	Mo 202.031†	-225.9	-239.8	-6.1197 µg/L	-6.1197 ppb	16:58:35
1	Ni 231.604†	48.3	-259.9	-7.0295 µg/L	-7.0295 ppb	16:58:35
1	P 214.914†	306.6	317.4	411.96 µg/L	411.96 ppb	16:58:35
1	Pb 220.353†	156.6	79.1	15.477 µg/L	15.477 ppb	16:58:35
1	S 181.975 Axial†	35.4	19.5	80.955 µg/L	80.955 ppb	16:58:35
1	Sb 206.836†	57.1	39.4	-6.4292 µg/L	-6.4292 ppb	16:58:35
1	Se 196.026†	-157.5	-190.2	417.62 µg/L	417.62 ppb	16:58:35
1	SiO2†	1118.3	-178.0	-35.141 µg/L	-35.141 ppb	16:58:35
1	Si 251.611†	-300.1	-636.3	-48.374 µg/L	-48.374 ppb	16:58:35
1	Sn 189.927†	-47.4	-51.8	-16.141 µg/L	-16.141 ppb	16:58:35
1	Ti 334.940†	15981.4	17168.1	7.6569 µg/L	7.6569 ppb	16:58:15
1	Tl 190.801†	-58.7	-41.3	21.254 µg/L	21.254 ppb	16:58:35
1	U 409.014†	152808.3	165905.7	13691 µg/L	13691 ppb	16:58:15
1	V 292.402†	-7264.4	-7838.6	-8.4612 µg/L	-8.4612 ppb	16:58:15
1	Zn 213.857†	2986.9	2707.0	14.661 µg/L	14.661 ppb	16:58:35
2	Sc RADIAL	54627.5	54627.5	96.7 %		16:57:51
2	Al 396.153Radial†	705003.9	729106.1	507210 µg/L	507210 ppb	16:57:46
2	Ca 317.933Radial†	548288.5	566827.4	484170 µg/L	484170 ppb	16:57:46
2	Fe 238.204 Radial†	56104.2	58006.2	457490 µg/L	457490 ppb	16:57:51
2	K 766.490 Radial†	75.8	-86.6	-56.548 µg/L	-56.548 ppb	16:57:51
2	Mg 279.077 IEC†	52084.5	53852.8	480900 µg/L	480900 ppb	16:57:51
2	Na 589.592 Radial†	1549659.8	1602182.6	492100 µg/L	492100 ppb	16:57:46
2	Sr 421.552†	580.4	571.4	5.2714 µg/L	5.2714 ppb	16:57:51
2	Sc 361.383	1809663.3	1809663.3	92.183 %		16:58:42
2	Y 371.029	1230302.7	1230302.7	90.948 %		16:58:42
2	Ag 328.068†	-5024.4	-5048.9	-9.0852 µg/L	-9.0852 ppb	16:58:42
2	As 188.979†	-32.4	-34.7	-60.833 µg/L	-60.833 ppb	16:59:03
2	B 249.677†	1435.1	1172.6	-190.92 µg/L	-190.92 ppb	16:58:42
2	Ba 233.527†	598.4	666.2	15.855 µg/L	15.855 ppb	16:59:03
2	Be 313.107†	-11290.0	-9391.7	-5.5890 µg/L	-5.5890 ppb	16:58:42
2	Cd 226.502†	1204.3	1448.1	-15.591 µg/L	-15.591 ppb	16:58:42
2	Co 228.616†	198.7	213.6	9.5711 µg/L	9.5711 ppb	16:59:03
2	Cr 267.716†	78.1	135.1	2.6649 µg/L	2.6649 ppb	16:59:03
2	Cu 324.752†	-9599.6	-12957.4	-20.988 µg/L	-20.988 ppb	16:58:42
2	Mn 257.610†	-6316.5	-6596.2	20.934 µg/L	20.934 ppb	16:58:42
2	Mo 202.031†	-200.5	-212.1	-3.3875 µg/L	-3.3875 ppb	16:59:03
2	Ni 231.604†	53.6	-254.2	-6.7348 µg/L	-6.7348 ppb	16:59:03
2	P 214.914†	301.0	311.1	399.21 µg/L	399.21 ppb	16:59:03
2	Pb 220.353†	148.3	69.9	13.245 µg/L	13.245 ppb	16:59:03

2	S 181.975 Axial†	35.1	19.1	79.229 µg/L	79.229 ppb	16:59:03
2	Sb 206.836†	43.8	25.1	-19.483 µg/L	-19.483 ppb	16:59:03
2	Se 196.026†	-176.5	-210.8	391.20 µg/L	391.20 ppb	16:59:03
2	SiO2†	1119.0	-177.7	-35.076 µg/L	-35.076 ppb	16:59:03
2	Si 251.611†	-359.8	-700.9	-53.283 µg/L	-53.283 ppb	16:59:03
2	Sn 189.927†	-47.7	-52.1	-16.412 µg/L	-16.412 ppb	16:59:03
2	Ti 334.940†	16565.0	17794.7	9.0824 µg/L	9.0824 ppb	16:58:42
2	Tl 190.801†	-50.4	-32.3	33.191 µg/L	33.191 ppb	16:59:03
2	U 409.014†	152895.7	165938.1	13694 µg/L	13694 ppb	16:58:42
2	V 292.402†	-7309.1	-7884.1	-8.8154 µg/L	-8.8154 ppb	16:58:42
2	Zn 213.857†	2986.8	2705.7	14.646 µg/L	14.646 ppb	16:59:03
3	Sc RADIAL	54733.6	54733.6	96.9 %		16:58:03
3	Al 396.153Radial†	704918.4	727604.3	506160 µg/L	506160 ppb	16:57:58
3	Ca 317.933Radial†	547195.5	564600.0	482270 µg/L	482270 ppb	16:57:58
3	Fe 238.204 Radial†	56342.5	58139.8	458540 µg/L	458540 ppb	16:58:03
3	K 766.490 Radial†	150.9	-9.2	-6.0382 µg/L	-6.0382 ppb	16:58:03
3	Mg 279.077 IEC†	52432.2	54107.4	483180 µg/L	483180 ppb	16:58:03
3	Na 589.592 Radial†	1551864.9	1601351.6	491840 µg/L	491840 ppb	16:57:58
3	Sr 421.552†	544.2	532.9	4.9161 µg/L	4.9161 ppb	16:58:03
3	Sc 361.383	1803530.5	1803530.5	91.871 %		16:59:10
3	Y 371.029	1226225.3	1226225.3	90.646 %		16:59:10
3	Ag 328.068†	-4992.7	-5032.9	-8.8937 µg/L	-8.8937 ppb	16:59:10
3	As 188.979†	-17.9	-19.1	-32.607 µg/L	-32.607 ppb	16:59:30
3	B 249.677†	1429.0	1171.3	-191.53 µg/L	-191.53 ppb	16:59:10
3	Ba 233.527†	596.4	666.2	15.857 µg/L	15.857 ppb	16:59:30
3	Be 313.107†	-11247.7	-9387.3	-5.5855 µg/L	-5.5855 ppb	16:59:10
3	Cd 226.502†	1240.2	1491.6	-14.625 µg/L	-14.625 ppb	16:59:10
3	Co 228.616†	217.8	235.1	10.551 µg/L	10.551 ppb	16:59:30
3	Cr 267.716†	61.4	117.2	2.3057 µg/L	2.3057 ppb	16:59:30
3	Cu 324.752†	-9496.4	-12880.5	-20.340 µg/L	-20.340 ppb	16:59:10
3	Mn 257.610†	-6307.3	-6609.4	20.942 µg/L	20.942 ppb	16:59:10
3	Mo 202.031†	-204.7	-217.5	-3.8705 µg/L	-3.8705 ppb	16:59:30
3	Ni 231.604†	57.2	-250.1	-6.5186 µg/L	-6.5186 ppb	16:59:30
3	P 214.914†	280.7	290.2	356.64 µg/L	356.64 ppb	16:59:30
3	Pb 220.353†	147.7	69.8	13.118 µg/L	13.118 ppb	16:59:30
3	S 181.975 Axial†	25.1	8.4	34.818 µg/L	34.818 ppb	16:59:30
3	Sb 206.836†	38.6	19.5	-24.434 µg/L	-24.434 ppb	16:59:30
3	Se 196.026†	-161.9	-195.6	413.95 µg/L	413.95 ppb	16:59:30
3	SiO2†	1115.5	-177.4	-35.018 µg/L	-35.018 ppb	16:59:30
3	Si 251.611†	-321.2	-660.2	-50.191 µg/L	-50.191 ppb	16:59:30
3	Sn 189.927†	-41.2	-45.3	-13.350 µg/L	-13.350 ppb	16:59:30
3	Ti 334.940†	15494.0	16690.0	6.4283 µg/L	6.4283 ppb	16:59:10
3	Tl 190.801†	-51.2	-33.3	32.056 µg/L	32.056 ppb	16:59:30
3	U 409.014†	152493.7	166064.5	13704 µg/L	13704 ppb	16:59:10
3	V 292.402†	-7191.9	-7783.6	-7.7057 µg/L	-7.7057 ppb	16:59:10
3	Zn 213.857†	2972.0	2700.6	14.345 µg/L	14.345 ppb	16:59:30

## Mean Data: LRI

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1807392.0	92.067 %	0.1712			0.19%
Sc RADIAL	54703.2	96.8 %	0.12			0.12%
Y 371.029	1228601.0	90.822 %	0.1568			0.17%
Ag 328.068†	-5029.0	-8.9240 µg/L	0.14840	-8.9240 ppb	0.14840	1.66%
Al 396.153Radial†	728511.2	506790 µg/L	555.2	506790 ppb	555.2	0.11%
QC value within limits for Al 396.153Radial Recovery = 101.36%						
As 188.979†	-24.8	-42.948 µg/L	15.5521	-42.948 ppb	15.5521	36.21%
B 249.677†	1184.9	-190.51 µg/L	1.274	-190.51 ppb	1.274	0.67%
Ba 233.527†	666.8	15.870 µg/L	0.0245	15.870 ppb	0.0245	0.15%
Be 313.107†	-9375.2	-5.5787 µg/L	0.01486	-5.5787 ppb	0.01486	0.27%
Ca 317.933Radial†	566564.5	483950 µg/L	1577.8	483950 ppb	1577.8	0.33%
QC value within limits for Ca 317.933Radial Recovery = 96.79%						
Cd 226.502†	1465.0	-15.189 µg/L	0.5033	-15.189 ppb	0.5033	3.31%
Co 228.616†	225.1	10.094 µg/L	0.4933	10.094 ppb	0.4933	4.89%
Cr 267.716†	117.2	2.3065 µg/L	0.35801	2.3065 ppb	0.35801	15.52%
Cu 324.752†	-12939.7	-20.849 µg/L	0.4554	-20.849 ppb	0.4554	2.18%
Fe 238.204 Radial†	58027.9	457660 µg/L	810.7	457660 ppb	810.7	0.18%
QC value within limits for Fe 238.204 Radial Recovery = 91.53%						
K 766.490 Radial†	-47.2	-30.852 µg/L	25.2666	-30.852 ppb	25.2666	81.90%
Mg 279.077 IEC†	53965.5	481910 µg/L	1159.2	481910 ppb	1159.2	0.24%

QC value within limits for Mg 279.077 IEC Recovery = 96.38%

Mn 257.610†	-6543.3	21.082 µg/L	0.2497	21.082 ppb	0.2497	1.18%
Mo 202.031†	-223.1	-4.4592 µg/L	1.45813	-4.4592 ppb	1.45813	32.70%
Na 589.592 Radial†	1601426.4	491870 µg/L	221.6	491870 ppb	221.6	0.05%

QC value within limits for Na 589.592 Radial Recovery = 98.37%

Ni 231.604†	-254.7	-6.7610 µg/L	0.25647	-6.7610 ppb	0.25647	3.79%
P 214.914†	306.2	389.27 µg/L	28.970	389.27 ppb	28.970	7.44%
Pb 220.353†	72.9	13.947 µg/L	1.3271	13.947 ppb	1.3271	9.52%
S 181.975 Axial†	15.7	65.000 µg/L	26.1534	65.000 ppb	26.1534	40.24%
Sb 206.836†	28.0	-16.782 µg/L	9.3013	-16.782 ppb	9.3013	55.42%
Se 196.026†	-198.8	407.59 µg/L	14.310	407.59 ppb	14.310	3.51%
SiO2†	-177.7	-35.078 µg/L	0.0614	-35.078 ppb	0.0614	0.18%
Si 251.611†	-665.8	-50.616 µg/L	2.4820	-50.616 ppb	2.4820	4.90%
Sn 189.927†	-49.7	-15.301 µg/L	1.6952	-15.301 ppb	1.6952	11.08%
Sr 421.552†	563.7	5.2000 µg/L	0.25572	5.2000 ppb	0.25572	4.92%
Ti 334.940†	17217.6	7.7225 µg/L	1.32825	7.7225 ppb	1.32825	17.20%
Tl 190.801†	-35.6	28.834 µg/L	6.5890	28.834 ppb	6.5890	22.85%
U 409.014†	165969.4	13696 µg/L	7.0	13696 ppb	7.0	0.05%

QC value within limits for U 409.014 Recovery = 91.31%

V 292.402†	-7835.4	-8.3274 µg/L	0.56678	-8.3274 ppb	0.56678	6.81%
Zn 213.857†	2704.4	14.551 µg/L	0.1785	14.551 ppb	0.1785	1.23%

All analyte(s) passed QC.

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 2/19/2010 16:59:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56692.7	56692.7	100 %		17:00:22
1	Al 396.153Radial†	410.3	401.6	67.150 µg/L	67.150 ppb	17:00:22
1	Ca 317.933Radial†	313.1	100.7	86.030 µg/L	86.030 ppb	17:00:42
1	Fe 238.204 Radial†	6.3	-10.3	125.34 µg/L	125.34 ppb	17:00:42
1	K 766.490 Radial†	452848.2	451108.7	294630 µg/L	294630 ppb	17:00:16
1	Mg 279.077 IEC†	-3.5	-16.3	27.924 µg/L	27.924 ppb	17:00:42
1	Na 589.592 Radial†	1202.8	726.5	223.13 µg/L	223.13 ppb	17:00:22
1	Sr 421.552†	1055792.8	1052093.2	9705.7 µg/L	9705.7 ppb	17:00:16
1	Sc 361.383	1927950.9	1927950.9	98.209 %		17:02:14
1	Y 371.029	1317313.5	1317313.5	97.380 %		17:02:14
1	Ag 328.068†	-7740.8	-7480.4	13.019 µg/L	13.019 ppb	17:02:19
1	As 188.979†	5373.1	5471.6	9786.3 µg/L	9786.3 ppb	17:02:19
1	B 249.677†	122177.3	124021.9	5094.8 µg/L	5094.8 ppb	17:02:14
1	Ba 233.527†	611336.6	622505.5	14963 µg/L	14963 ppb	17:02:14
1	Be 313.107†	4884950.3	4976915.5	2949.9 µg/L	2949.9 ppb	17:02:03
1	Cd 226.502†	386911.9	394111.5	9839.4 µg/L	9839.4 ppb	17:02:14
1	Co 228.616†	210861.9	214706.5	9711.7 µg/L	9711.7 ppb	17:02:14
1	Cr 267.716†	1221432.5	1243763.8	24988 µg/L	24988 ppb	17:02:14
1	Cu 324.752†	3142243.6	3197019.5	20869 µg/L	20869 ppb	17:02:14
1	Mn 257.610†	3084343.0	3140862.5	9835.7 µg/L	9835.7 ppb	17:02:14
1	Mo 202.031†	103586.6	105481.5	10329 µg/L	10329 ppb	17:02:14
1	Ni 231.604†	195607.8	198863.7	9901.7 µg/L	9901.7 ppb	17:02:14
1	P 214.914†	7737.6	7863.4	13522 µg/L	13522 ppb	17:02:19
1	Pb 220.353†	104065.3	105872.7	25731 µg/L	25731 ppb	17:02:14
1	S 181.975 Axial†	12812.3	13027.1	54023 µg/L	54023 ppb	17:02:19
1	Sb 206.836†	11529.6	11717.4	10643 µg/L	10643 ppb	17:02:19
1	Se 196.026†	6981.3	7089.4	9956.3 µg/L	9956.3 ppb	17:02:19
1	SiO2†	509789.5	517697.3	102190 µg/L	102190 ppb	17:02:14
1	Si 251.611†	616246.3	627177.0	47679 µg/L	47679 ppb	17:02:14
1	Sn 189.927†	24747.6	25198.7	10627 µg/L	10627 ppb	17:02:19
1	Ti 334.940†	4520614.2	4602902.5	10183 µg/L	10183 ppb	17:02:03
1	Tl 190.801†	7250.0	7404.6	9714.3 µg/L	9714.3 ppb	17:02:19
1	U 409.014†	894.0	987.4	82.040 µg/L	82.040 ppb	17:02:14
1	V 292.402†	1045223.3	1064334.6	10510 µg/L	10510 ppb	17:02:14
1	Zn 213.857†	624777.0	635639.6	14836 µg/L	14836 ppb	17:02:14
2	Sc RADIAL	56901.4	56901.4	101 %		17:00:54
2	Al 396.153Radial†	358.9	349.0	41.120 µg/L	41.120 ppb	17:00:54
2	Ca 317.933Radial†	305.5	92.1	78.637 µg/L	78.637 ppb	17:01:14
2	Fe 238.204 Radial†	4.4	-12.2	99.290 µg/L	99.290 ppb	17:01:14
2	K 766.490 Radial†	456232.0	452813.9	295740 µg/L	295740 ppb	17:00:48
2	Mg 279.077 IEC†	1.4	-11.4	63.333 µg/L	63.333 ppb	17:01:14
2	Na 589.592 Radial†	1121.5	641.3	196.97 µg/L	196.97 ppb	17:00:54
2	Sr 421.552†	1064137.7	1056521.3	9746.6 µg/L	9746.6 ppb	17:00:48
2	Sc 361.383	1930719.4	1930719.4	98.350 %		17:02:38
2	Y 371.029	1320362.0	1320362.0	97.605 %		17:02:38
2	Ag 328.068†	-7077.0	-6794.2	14.570 µg/L	14.570 ppb	17:02:44
2	As 188.979†	5081.0	5166.8	9240.9 µg/L	9240.9 ppb	17:02:44
2	B 249.677†	118618.7	120225.2	4937.5 µg/L	4937.5 ppb	17:02:38
2	Ba 233.527†	584914.6	594747.4	14296 µg/L	14296 ppb	17:02:38
2	Be 313.107†	4840646.5	4924735.5	2919.0 µg/L	2919.0 ppb	17:02:28
2	Cd 226.502†	369934.9	376284.7	9394.3 µg/L	9394.3 ppb	17:02:38
2	Co 228.616†	200219.4	203577.5	9207.4 µg/L	9207.4 ppb	17:02:38
2	Cr 267.716†	1146054.0	1165336.9	23412 µg/L	23412 ppb	17:02:38
2	Cu 324.752†	2987260.6	3034847.6	19810 µg/L	19810 ppb	17:02:38
2	Mn 257.610†	2933156.9	2982635.7	9340.2 µg/L	9340.2 ppb	17:02:38
2	Mo 202.031†	98580.4	100240.0	9816.1 µg/L	9816.1 ppb	17:02:38
2	Ni 231.604†	185684.1	188487.9	9385.1 µg/L	9385.1 ppb	17:02:38
2	P 214.914†	7168.5	7273.5	12452 µg/L	12452 ppb	17:02:44
2	Pb 220.353†	100296.4	101888.6	24763 µg/L	24763 ppb	17:02:38

2	S 181.975 Axial†	12172.5	12357.8	51247 µg/L	51247 ppb	17:02:44
2	Sb 206.836†	10777.5	10935.8	9934.7 µg/L	9934.7 ppb	17:02:44
2	Se 196.026†	6594.7	6686.0	9389.7 µg/L	9389.7 ppb	17:02:44
2	SiO2†	493318.0	500205.0	98734 µg/L	98734 ppb	17:02:38
2	Si 251.611†	596653.2	606355.3	46096 µg/L	46096 ppb	17:02:38
2	Sn 189.927†	22590.4	22969.2	9686.4 µg/L	9686.4 ppb	17:02:44
2	Ti 334.940†	4476920.0	4551874.4	10070 µg/L	10070 ppb	17:02:28
2	Tl 190.801†	7064.0	7204.9	9453.5 µg/L	9453.5 ppb	17:02:44
2	U 409.014†	804.4	895.0	74.370 µg/L	74.370 ppb	17:02:38
2	V 292.402†	992711.5	1009415.4	9966.7 µg/L	9966.7 ppb	17:02:38
2	Zn 213.857†	595571.0	605031.1	14122 µg/L	14122 ppb	17:02:38
3	Sc RADIAL	56734.5	56734.5	100 %		17:01:26
3	Al 396.153Radial†	382.8	373.8	92.098 µg/L	92.098 ppb	17:01:26
3	Ca 317.933Radial†	337.7	125.0	106.77 µg/L	106.77 ppb	17:01:46
3	Fe 238.204 Radial†	8.1	-8.5	96.137 µg/L	96.137 ppb	17:01:46
3	K 766.490 Radial†	455344.2	453262.2	296030 µg/L	296030 ppb	17:01:20
3	Mg 279.077 IEC†	6.4	-6.4	80.021 µg/L	80.021 ppb	17:01:46
3	Na 589.592 Radial†	1058.9	582.2	178.83 µg/L	178.83 ppb	17:01:26
3	Sr 421.552†	1062613.5	1058110.9	9761.2 µg/L	9761.2 ppb	17:01:20
3	Sc 361.383	1951531.6	1951531.6	99.410 %		17:03:03
3	Y 371.029	1334759.8	1334759.8	98.670 %		17:03:03
3	Ag 328.068†	-5952.6	-5586.4	12.490 µg/L	12.490 ppb	17:03:09
3	As 188.979†	4352.3	4378.6	7831.5 µg/L	7831.5 ppb	17:03:09
3	B 249.677†	103961.3	104194.4	4277.3 µg/L	4277.3 ppb	17:03:03
3	Ba 233.527†	498513.8	501491.0	12054 µg/L	12054 ppb	17:03:03
3	Be 313.107†	4199873.9	4227668.5	2505.9 µg/L	2505.9 ppb	17:02:53
3	Cd 226.502†	314684.6	316694.9	7906.5 µg/L	7906.5 ppb	17:03:03
3	Co 228.616†	168522.5	169521.2	7666.6 µg/L	7666.6 ppb	17:03:03
3	Cr 267.716†	945201.2	950864.3	19103 µg/L	19103 ppb	17:03:03
3	Cu 324.752†	2517755.9	2530162.7	16516 µg/L	16516 ppb	17:03:03
3	Mn 257.610†	2467371.4	2482278.7	7773.3 µg/L	7773.3 ppb	17:03:03
3	Mo 202.031†	82974.3	83472.3	8174.1 µg/L	8174.1 ppb	17:03:03
3	Ni 231.604†	156258.3	156873.9	7811.0 µg/L	7811.0 ppb	17:03:03
3	P 214.914†	6005.8	6026.1	10305 µg/L	10305 ppb	17:03:09
3	Pb 220.353†	86464.2	86886.7	21117 µg/L	21117 ppb	17:03:03
3	S 181.975 Axial†	10331.9	10374.4	43022 µg/L	43022 ppb	17:03:09
3	Sb 206.836†	9128.5	9160.2	8326.6 µg/L	8326.6 ppb	17:03:09
3	Se 196.026†	5645.3	5659.5	7948.1 µg/L	7948.1 ppb	17:03:09
3	SiO2†	429530.2	430689.2	85012 µg/L	85012 ppb	17:03:03
3	Si 251.611†	519223.8	521996.3	39683 µg/L	39683 ppb	17:03:03
3	Sn 189.927†	18770.5	18881.6	7962.6 µg/L	7962.6 ppb	17:03:09
3	Ti 334.940†	3882788.8	3905669.8	8640.2 µg/L	8640.2 ppb	17:02:53
3	Tl 190.801†	6222.6	6282.0	8241.0 µg/L	8241.0 ppb	17:03:09
3	U 409.014†	704.1	785.3	65.252 µg/L	65.252 ppb	17:03:03
3	V 292.402†	832909.4	837900.0	8272.7 µg/L	8272.7 ppb	17:03:03
3	Zn 213.857†	505033.0	507497.5	11846 µg/L	11846 ppb	17:03:03

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1936734.0	98.656 %	0.6566			0.67%
Sc RADIAL	56776.2	100 %	0.2			0.19%
Y 371.029	1324145.1	97.885 %	0.6888			0.70%
Ag 328.068†	-6620.3	13.360 µg/L	1.0808	13.360 ppb	1.0808	8.09%
Al 396.153Radial†	374.8	66.790 µg/L	25.4910	66.790 ppb	25.4910	38.17%
As 188.979†	5005.6	8952.9 µg/L	1008.74	8952.9 ppb	1008.74	11.27%
QC value less than the lower limit for As 188.979 Recovery = 89.53%						
B 249.677†	116147.2	4769.9 µg/L	433.79	4769.9 ppb	433.79	9.09%
QC value within limits for B 249.677 Recovery = 95.40%						
Ba 233.527†	572914.6	13771 µg/L	1524.0	13771 ppb	1524.0	11.07%
QC value within limits for Ba 233.527 Recovery = 91.81%						
Be 313.107†	4709773.2	2791.6 µg/L	247.95	2791.6 ppb	247.95	8.88%
QC value within limits for Be 313.107 Recovery = 93.05%						
Ca 317.933Radial†	105.9	90.480 µg/L	14.5864	90.480 ppb	14.5864	16.12%
Cd 226.502†	362363.7	9046.7 µg/L	1012.25	9046.7 ppb	1012.25	11.19%
QC value within limits for Cd 226.502 Recovery = 90.47%						
Co 228.616†	195935.1	8861.9 µg/L	1065.42	8861.9 ppb	1065.42	12.02%
QC value less than the lower limit for Co 228.616 Recovery = 88.62%						
Cr 267.716†	1119988.3	22501 µg/L	3046.1	22501 ppb	3046.1	13.54%
QC value within limits for Cr 267.716 Recovery = 90.00%						



Cu 324.752†	2920676.6	19065 µg/L	2270.1	19065 ppb	2270.1	11.91%
QC value within limits for Cu 324.752 Recovery = 95.32%						
Fe 238.204 Radial†	-10.3	106.92 µg/L	16.029	106.92 ppb	16.029	14.99%
K 766.490 Radial†	452395.0	295470 µg/L	742.1	295470 ppb	742.1	0.25%
QC value within limits for K 766.490 Radial Recovery = 98.49%						
Mg 279.077 IEC†	-11.4	57.093 µg/L	26.6031	57.093 ppb	26.6031	46.60%
Mn 257.610†	2868592.3	8983.1 µg/L	1076.57	8983.1 ppb	1076.57	11.98%
QC value less than the lower limit for Mn 257.610 Recovery = 89.83%						
Mo 202.031†	96398.0	9439.9 µg/L	1125.82	9439.9 ppb	1125.82	11.93%
QC value within limits for Mo 202.031 Recovery = 94.40%						
Na 589.592 Radial†	650.0	199.64 µg/L	22.270	199.64 ppb	22.270	11.15%
Ni 231.604†	181408.5	9032.6 µg/L	1089.03	9032.6 ppb	1089.03	12.06%
QC value within limits for Ni 231.604 Recovery = 90.33%						
P 214.914†	7054.3	12093 µg/L	1638.4	12093 ppb	1638.4	13.55%
QC value less than the lower limit for P 214.914 Recovery = 80.62%						
Pb 220.353†	98216.0	23870 µg/L	2433.1	23870 ppb	2433.1	10.19%
QC value within limits for Pb 220.353 Recovery = 95.48%						
S 181.975 Axial†	11919.8	49431 µg/L	5721.0	49431 ppb	5721.0	11.57%
QC value within limits for S 181.975 Axial Recovery = 98.86%						
Sb 206.836†	10604.5	9634.7 µg/L	1186.86	9634.7 ppb	1186.86	12.32%
QC value within limits for Sb 206.836 Recovery = 96.35%						
Se 196.026†	6478.3	9098.0 µg/L	1035.37	9098.0 ppb	1035.37	11.38%
QC value within limits for Se 196.026 Recovery = 90.98%						
SiO2†	482863.9	95311 µg/L	9084.4	95311 ppb	9084.4	9.53%
QC value less than the lower limit for SiO2 Recovery = 89.08%						
Si 251.611†	585176.2	44486 µg/L	4234.2	44486 ppb	4234.2	9.52%
QC value less than the lower limit for Si 251.611 Recovery = 88.97%						
Sn 189.927†	22349.8	9425.3 µg/L	1351.08	9425.3 ppb	1351.08	14.33%
QC value within limits for Sn 189.927 Recovery = 94.25%						
Sr 421.552†	1055575.2	9737.8 µg/L	28.77	9737.8 ppb	28.77	0.30%
QC value within limits for Sr 421.552 Recovery = 97.38%						
Ti 334.940†	4353482.3	9630.9 µg/L	859.79	9630.9 ppb	859.79	8.93%
QC value within limits for Ti 334.940 Recovery = 96.31%						
Tl 190.801†	6963.8	9136.3 µg/L	786.19	9136.3 ppb	786.19	8.61%
QC value within limits for Tl 190.801 Recovery = 91.36%						
U 409.014†	889.2	73.887 µg/L	8.4048	73.887 ppb	8.4048	11.38%
V 292.402†	970550.0	9583.0 µg/L	1166.76	9583.0 ppb	1166.76	12.18%
QC value within limits for V 292.402 Recovery = 95.83%						
Zn 213.857†	582722.8	13601 µg/L	1561.6	13601 ppb	1561.6	11.48%
QC value within limits for Zn 213.857 Recovery = 90.67%						
QC Failed. Continue with analysis.						

Sequence No.: 13  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/19/2010 17:03:18  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55888.6	55888.6	98.9 %		17:03:56
1	Al 396.153Radial†	7603.9	7679.1	5330.8 µg/L	5330.8 ppb	17:03:56
1	Ca 317.933Radial†	6396.5	6254.7	5342.6 µg/L	5342.6 ppb	17:04:16
1	Fe 238.204 Radial†	693.3	684.2	5407.8 µg/L	5407.8 ppb	17:04:16
1	K 766.490 Radial†	8387.1	8313.2	5429.5 µg/L	5429.5 ppb	17:03:56
1	Mg 279.077 IEC†	619.4	613.3	5485.4 µg/L	5485.4 ppb	17:04:16
1	Na 589.592 Radial†	35135.8	35045.3	10764 µg/L	10764 ppb	17:03:56
1	Sr 421.552†	55695.8	56272.0	519.12 µg/L	519.12 ppb	17:03:56
1	Sc 361.383	1985726.3	1985726.3	101.15 %		17:05:20
1	Y 371.029	1365771.7	1365771.7	100.96 %		17:05:20
1	Ag 328.068†	70288.8	69890.2	521.53 µg/L	521.53 ppb	17:05:25
1	As 188.979†	301.3	298.4	533.72 µg/L	533.72 ppb	17:05:46
1	B 249.677†	13549.7	13011.4	528.34 µg/L	528.34 ppb	17:05:25
1	Ba 233.527†	22064.2	21830.1	525.03 µg/L	525.03 ppb	17:05:25
1	Be 313.107†	895757.0	888415.0	527.08 µg/L	527.08 ppb	17:05:20
1	Cd 226.502†	21255.4	21155.1	527.55 µg/L	527.55 ppb	17:05:25
1	Co 228.616†	11817.8	11681.3	528.41 µg/L	528.41 ppb	17:05:25
1	Cr 267.716†	26786.8	26532.2	533.24 µg/L	533.24 ppb	17:05:25
1	Cu 324.752†	84423.2	80918.4	528.94 µg/L	528.94 ppb	17:05:25
1	Mn 257.610†	172694.5	170984.5	535.94 µg/L	535.94 ppb	17:05:20
1	Mo 202.031†	5634.1	5575.3	546.17 µg/L	546.17 ppb	17:05:46
1	Ni 231.604†	11061.6	10623.3	529.01 µg/L	529.01 ppb	17:05:25
1	P 214.914†	1393.6	1362.4	2646.9 µg/L	2646.9 ppb	17:05:46
1	Pb 220.353†	2366.1	2248.2	546.74 µg/L	546.74 ppb	17:05:46
1	S 181.975 Axial†	286.4	264.2	1095.6 µg/L	1095.6 ppb	17:05:46
1	Sb 206.836†	624.5	594.8	548.51 µg/L	548.51 ppb	17:05:46
1	Se 196.026†	403.3	379.4	541.16 µg/L	541.16 ppb	17:05:46
1	SiO2†	30463.6	28725.2	5670.0 µg/L	5670.0 ppb	17:05:25
1	Si 251.611†	35537.3	34822.1	2647.2 µg/L	2647.2 ppb	17:05:25
1	Sn 189.927†	1316.6	1301.2	548.79 µg/L	548.79 ppb	17:05:46
1	Ti 334.940†	242343.4	239409.4	529.28 µg/L	529.28 ppb	17:05:20
1	Tl 190.801†	396.9	414.8	545.11 µg/L	545.11 ppb	17:05:46
1	U 409.014†	6392.8	6397.1	530.42 µg/L	530.42 ppb	17:05:25
1	V 292.402†	54586.5	54009.9	532.97 µg/L	532.97 ppb	17:05:25
1	Zn 213.857†	23680.6	22876.6	532.96 µg/L	532.96 ppb	17:05:25
2	Sc RADIAL	56411.2	56411.2	99.9 %		17:04:22
2	Al 396.153Radial†	7635.5	7639.5	5303.6 µg/L	5303.6 ppb	17:04:22
2	Ca 317.933Radial†	6387.4	6185.7	5283.7 µg/L	5283.7 ppb	17:04:42
2	Fe 238.204 Radial†	694.2	678.6	5363.5 µg/L	5363.5 ppb	17:04:42
2	K 766.490 Radial†	8367.7	8215.3	5365.5 µg/L	5365.5 ppb	17:04:22
2	Mg 279.077 IEC†	620.5	608.6	5443.2 µg/L	5443.2 ppb	17:04:42
2	Na 589.592 Radial†	35309.3	34889.9	10716 µg/L	10716 ppb	17:04:22
2	Sr 421.552†	56012.6	56067.6	517.23 µg/L	517.23 ppb	17:04:22
2	Sc 361.383	1973301.2	1973301.2	100.52 %		17:05:53
2	Y 371.029	1356327.8	1356327.8	100.26 %		17:05:53
2	Ag 328.068†	69539.4	69582.3	519.23 µg/L	519.23 ppb	17:05:58
2	As 188.979†	297.6	296.5	530.36 µg/L	530.36 ppb	17:06:19
2	B 249.677†	13399.5	12946.2	525.71 µg/L	525.71 ppb	17:05:58
2	Ba 233.527†	21880.7	21784.8	523.94 µg/L	523.94 ppb	17:05:58
2	Be 313.107†	883505.0	881802.2	523.15 µg/L	523.15 ppb	17:05:53
2	Cd 226.502†	20975.5	21009.0	523.90 µg/L	523.90 ppb	17:05:58
2	Co 228.616†	11661.3	11599.2	524.68 µg/L	524.68 ppb	17:05:58
2	Cr 267.716†	26502.8	26416.4	530.91 µg/L	530.91 ppb	17:05:58
2	Cu 324.752†	83587.4	80612.4	526.94 µg/L	526.94 ppb	17:05:58
2	Mn 257.610†	170657.8	170033.3	532.96 µg/L	532.96 ppb	17:05:53
2	Mo 202.031†	5420.5	5397.9	528.80 µg/L	528.80 ppb	17:06:19
2	Ni 231.604†	10882.8	10514.3	523.58 µg/L	523.58 ppb	17:05:58
2	P 214.914†	1342.7	1320.4	2563.7 µg/L	2563.7 ppb	17:06:19
2	Pb 220.353†	2290.9	2188.1	532.08 µg/L	532.08 ppb	17:06:19

2	S 181.975 Axial†	275.7	255.3	1058.7 µg/L	1058.7 ppb	17:06:19
2	Sb 206.836†	598.1	572.5	527.76 µg/L	527.76 ppb	17:06:19
2	Se 196.026†	397.1	375.7	535.95 µg/L	535.95 ppb	17:06:19
2	SiO2†	30055.7	28509.0	5627.3 µg/L	5627.3 ppb	17:05:58
2	Si 251.611†	35203.5	34711.2	2638.8 µg/L	2638.8 ppb	17:05:58
2	Sn 189.927†	1262.7	1255.8	529.63 µg/L	529.63 ppb	17:06:19
2	Ti 334.940†	239137.9	237729.0	525.56 µg/L	525.56 ppb	17:05:53
2	Tl 190.801†	378.8	399.3	524.92 µg/L	524.92 ppb	17:06:19
2	U 409.014†	6362.6	6406.8	531.24 µg/L	531.24 ppb	17:05:58
2	V 292.402†	53891.1	53657.8	529.39 µg/L	529.39 ppb	17:05:58
2	Zn 213.857†	23377.3	22722.3	529.37 µg/L	529.37 ppb	17:05:58
3	Sc RADIAL	56975.5	56975.5	101 %		17:04:48
3	Al 396.153Radial†	7635.5	7563.8	5253.0 µg/L	5253.0 ppb	17:04:48
3	Ca 317.933Radial†	6375.4	6110.4	5219.4 µg/L	5219.4 ppb	17:05:08
3	Fe 238.204 Radial†	692.0	669.6	5290.9 µg/L	5290.9 ppb	17:05:08
3	K 766.490 Radial†	8336.4	8101.2	5291.0 µg/L	5291.0 ppb	17:04:48
3	Mg 279.077 IEC†	615.1	597.1	5339.2 µg/L	5339.2 ppb	17:05:08
3	Na 589.592 Radial†	35286.2	34516.8	10602 µg/L	10602 ppb	17:04:48
3	Sr 421.552†	56155.5	55653.7	513.41 µg/L	513.41 ppb	17:04:48
3	Sc 361.383	1965301.5	1965301.5	100.11 %		17:06:26
3	Y 371.029	1350670.0	1350670.0	99.846 %		17:06:26
3	Ag 328.068†	64381.3	64711.5	482.70 µg/L	482.70 ppb	17:06:32
3	As 188.979†	245.8	246.0	440.05 µg/L	440.05 ppb	17:06:52
3	B 249.677†	12272.2	11874.4	481.93 µg/L	481.93 ppb	17:06:32
3	Ba 233.527†	19548.8	19544.2	470.02 µg/L	470.02 ppb	17:06:32
3	Be 313.107†	784667.9	786652.6	466.70 µg/L	466.70 ppb	17:06:26
3	Cd 226.502†	18615.7	18736.7	467.18 µg/L	467.18 ppb	17:06:32
3	Co 228.616†	10218.5	10205.2	461.59 µg/L	461.59 ppb	17:06:32
3	Cr 267.716†	22418.3	22443.7	451.08 µg/L	451.08 ppb	17:06:32
3	Cu 324.752†	73939.9	71314.0	466.24 µg/L	466.24 ppb	17:06:32
3	Mn 257.610†	152452.7	152539.5	478.17 µg/L	478.17 ppb	17:06:26
3	Mo 202.031†	4381.2	4381.7	429.29 µg/L	429.29 ppb	17:06:52
3	Ni 231.604†	9646.8	9323.7	464.30 µg/L	464.30 ppb	17:06:32
3	P 214.914†	1099.4	1082.8	2098.1 µg/L	2098.1 ppb	17:06:52
3	Pb 220.353†	1951.4	1858.2	451.78 µg/L	451.78 ppb	17:06:52
3	S 181.975 Axial†	236.4	217.2	900.67 µg/L	900.67 ppb	17:06:52
3	Sb 206.836†	506.2	483.2	445.02 µg/L	445.02 ppb	17:06:52
3	Se 196.026†	341.1	321.4	459.63 µg/L	459.63 ppb	17:06:52
3	SiO2†	27392.4	25970.5	5126.2 µg/L	5126.2 ppb	17:06:32
3	Si 251.611†	31876.5	31530.5	2397.0 µg/L	2397.0 ppb	17:06:32
3	Sn 189.927†	1001.9	1000.4	421.93 µg/L	421.93 ppb	17:06:52
3	Ti 334.940†	211018.2	210609.0	465.58 µg/L	465.58 ppb	17:06:26
3	Tl 190.801†	333.8	355.8	467.83 µg/L	467.83 ppb	17:06:52
3	U 409.014†	5451.1	5522.1	457.75 µg/L	457.75 ppb	17:06:32
3	V 292.402†	46793.0	46785.8	461.39 µg/L	461.39 ppb	17:06:32
3	Zn 213.857†	20591.5	20034.3	466.68 µg/L	466.68 ppb	17:06:32

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1974776.3	100.59 %	0.524			0.52%
Sc RADIAL	56425.1	99.9 %	0.96			0.96%
Y 371.029	1357589.8	100.36 %	0.564			0.56%
Ag 328.068†	68061.3	507.82 µg/L	21.786	507.82 ppb	21.786	4.29%
QC value within limits for Ag 328.068 Recovery = 101.56%						
Al 396.153Radial†	7627.5	5295.8 µg/L	39.51	5295.8 ppb	39.51	0.75%
QC value within limits for Al 396.153Radial Recovery = 105.92%						
As 188.979†	280.3	501.38 µg/L	53.136	501.38 ppb	53.136	10.60%
QC value within limits for As 188.979 Recovery = 100.28%						
B 249.677†	12610.7	512.00 µg/L	26.067	512.00 ppb	26.067	5.09%
QC value within limits for B 249.677 Recovery = 102.40%						
Ba 233.527†	21053.0	506.33 µg/L	31.447	506.33 ppb	31.447	6.21%
QC value within limits for Ba 233.527 Recovery = 101.27%						
Be 313.107†	852289.9	505.65 µg/L	33.780	505.65 ppb	33.780	6.68%
QC value within limits for Be 313.107 Recovery = 101.13%						
Ca 317.933Radial†	6183.6	5281.9 µg/L	61.64	5281.9 ppb	61.64	1.17%
QC value within limits for Ca 317.933Radial Recovery = 105.64%						
Cd 226.502†	20300.3	506.21 µg/L	33.851	506.21 ppb	33.851	6.69%
QC value within limits for Cd 226.502 Recovery = 101.24%						
Co 228.616†	11161.9	504.89 µg/L	37.550	504.89 ppb	37.550	7.44%

QC value within limits for Co 228.616 Recovery = 100.98%							
Cr 267.716†	25130.8	505.07 µg/L	46.779	505.07 ppb	46.779	9.26%	
QC value within limits for Cr 267.716 Recovery = 101.01%							
Cu 324.752†	77614.9	507.37 µg/L	35.640	507.37 ppb	35.640	7.02%	
QC value within limits for Cu 324.752 Recovery = 101.47%							
Fe 238.204 Radial†	677.5	5354.0 µg/L	59.03	5354.0 ppb	59.03	1.10%	
QC value within limits for Fe 238.204 Radial Recovery = 107.08%							
K 766.490 Radial†	8209.9	5362.0 µg/L	69.32	5362.0 ppb	69.32	1.29%	
QC value within limits for K 766.490 Radial Recovery = 107.24%							
Mg 279.077 IEC†	606.3	5422.6 µg/L	75.22	5422.6 ppb	75.22	1.39%	
QC value within limits for Mg 279.077 IEC Recovery = 108.45%							
Mn 257.610†	164519.1	515.69 µg/L	32.527	515.69 ppb	32.527	6.31%	
QC value within limits for Mn 257.610 Recovery = 103.14%							
Mo 202.031†	5118.3	501.42 µg/L	63.069	501.42 ppb	63.069	12.58%	
QC value within limits for Mo 202.031 Recovery = 100.28%							
Na 589.592 Radial†	34817.3	10694 µg/L	83.4	10694 ppb	83.4	0.78%	
QC value within limits for Na 589.592 Radial Recovery = 106.94%							
Ni 231.604†	10153.8	505.63 µg/L	35.893	505.63 ppb	35.893	7.10%	
QC value within limits for Ni 231.604 Recovery = 101.13%							
P 214.914†	1255.2	2436.2 µg/L	295.76	2436.2 ppb	295.76	12.14%	
QC value within limits for P 214.914 Recovery = 97.45%							
Pb 220.353†	2098.2	510.20 µg/L	51.120	510.20 ppb	51.120	10.02%	
QC value within limits for Pb 220.353 Recovery = 102.04%							
S 181.975 Axial†	245.6	1018.3 µg/L	103.55	1018.3 ppb	103.55	10.17%	
QC value within limits for S 181.975 Axial Recovery = 101.83%							
Sb 206.836†	550.2	507.10 µg/L	54.752	507.10 ppb	54.752	10.80%	
QC value within limits for Sb 206.836 Recovery = 101.42%							
Se 196.026†	358.8	512.25 µg/L	45.639	512.25 ppb	45.639	8.91%	
QC value within limits for Se 196.026 Recovery = 102.45%							
SiO2†	27734.9	5474.5 µg/L	302.37	5474.5 ppb	302.37	5.52%	
QC value within limits for SiO2 Recovery = 102.38%							
Si 251.611†	33688.0	2561.0 µg/L	142.10	2561.0 ppb	142.10	5.55%	
QC value within limits for Si 251.611 Recovery = 102.44%							
Sn 189.927†	1185.8	500.11 µg/L	68.387	500.11 ppb	68.387	13.67%	
QC value within limits for Sn 189.927 Recovery = 100.02%							
Sr 421.552†	55997.8	516.59 µg/L	2.906	516.59 ppb	2.906	0.56%	
QC value within limits for Sr 421.552 Recovery = 103.32%							
Ti 334.940†	229249.1	506.81 µg/L	35.755	506.81 ppb	35.755	7.05%	
QC value within limits for Ti 334.940 Recovery = 101.36%							
Tl 190.801†	390.0	512.62 µg/L	40.080	512.62 ppb	40.080	7.82%	
QC value within limits for Tl 190.801 Recovery = 102.52%							
U 409.014†	6108.7	506.47 µg/L	42.195	506.47 ppb	42.195	8.33%	
QC value within limits for U 409.014 Recovery = 101.29%							
V 292.402†	51484.5	507.91 µg/L	40.335	507.91 ppb	40.335	7.94%	
QC value within limits for V 292.402 Recovery = 101.58%							
Zn 213.857†	21877.7	509.67 µg/L	37.277	509.67 ppb	37.277	7.31%	
QC value within limits for Zn 213.857 Recovery = 101.93%							

All analyte(s) passed QC.

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/19/2010 17:07:02

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55412.9	55412.9	98.1 %		17:07:34
1	Al 396.153Radial†	37.8	31.1	21.627 µg/L	21.627 ppb	17:07:34
1	Ca 317.933Radial†	224.1	17.2	14.719 µg/L	14.719 ppb	17:07:55
1	Fe 238.204 Radial†	17.2	1.0	7.9128 µg/L	7.9128 ppb	17:07:55
1	K 766.490 Radial†	263.9	104.0	67.945 µg/L	67.945 ppb	17:07:34
1	Mg 279.077 IEC†	16.1	3.6	31.922 µg/L	31.922 ppb	17:07:55
1	Na 589.592 Radial†	689.0	230.2	70.711 µg/L	70.711 ppb	17:07:34
1	Sr 421.552†	101.9	75.1	0.6926 µg/L	0.6926 ppb	17:07:34
1	Sc 361.383	1951828.9	1951828.9	99.425 %		17:08:57
1	Y 371.029	1347100.7	1347100.7	99.582 %		17:08:57
1	Ag 328.068†	-411.9	-12.6	-0.0884 µg/L	-0.0884 ppb	17:09:02
1	As 188.979†	1.0	1.5	2.6447 µg/L	2.6447 ppb	17:09:23
1	B 249.677†	547.2	166.2	6.7725 µg/L	6.7725 ppb	17:09:02
1	Ba 233.527†	13.0	30.1	0.7248 µg/L	0.7248 ppb	17:09:23
1	Be 313.107†	-2489.6	351.6	0.2085 µg/L	0.2085 ppb	17:09:02
1	Cd 226.502†	-106.1	35.0	0.8724 µg/L	0.8724 ppb	17:09:23
1	Co 228.616†	8.3	6.4	0.2907 µg/L	0.2907 ppb	17:09:23
1	Cr 267.716†	3.3	53.7	1.0792 µg/L	1.0792 ppb	17:09:02
1	Cu 324.752†	2832.8	305.4	1.9949 µg/L	1.9949 ppb	17:09:02
1	Mn 257.610†	-94.7	160.8	0.5033 µg/L	0.5033 ppb	17:09:23
1	Mo 202.031†	11.2	16.6	1.6267 µg/L	1.6267 ppb	17:09:23
1	Ni 231.604†	329.4	19.0	0.9450 µg/L	0.9450 ppb	17:09:23
1	P 214.914†	17.5	2.3	4.3252 µg/L	4.3252 ppb	17:09:23
1	Pb 220.353†	117.3	27.1	6.5756 µg/L	6.5756 ppb	17:09:23
1	S 181.975 Axial†	13.9	-5.0	-20.708 µg/L	-20.708 ppb	17:09:23
1	Sb 206.836†	24.4	2.0	1.8677 µg/L	1.8677 ppb	17:09:23
1	Se 196.026†	8.1	-11.2	-15.713 µg/L	-15.713 ppb	17:09:23
1	SiO2†	1498.4	115.5	22.804 µg/L	22.804 ppb	17:09:02
1	Si 251.611†	397.1	88.7	6.7465 µg/L	6.7465 ppb	17:09:23
1	Sn 189.927†	7.9	7.6	3.2082 µg/L	3.2082 ppb	17:09:23
1	Ti 334.940†	420.5	247.9	0.5462 µg/L	0.5462 ppb	17:09:02
1	Tl 190.801†	-26.0	-3.7	-4.8506 µg/L	-4.8506 ppb	17:09:23
1	U 409.014†	-2.4	74.7	6.2026 µg/L	6.2026 ppb	17:09:02
1	V 292.402†	29.6	74.5	0.7487 µg/L	0.7487 ppb	17:09:02
1	Zn 213.857†	624.2	93.4	2.1827 µg/L	2.1827 ppb	17:09:23
2	Sc RADIAL	55845.1	55845.1	98.8 %		17:08:00
2	Al 396.153Radial†	15.5	8.3	5.7389 µg/L	5.7389 ppb	17:08:00
2	Ca 317.933Radial†	229.7	21.1	18.050 µg/L	18.050 ppb	17:08:21
2	Fe 238.204 Radial†	18.3	1.9	15.065 µg/L	15.065 ppb	17:08:21
2	K 766.490 Radial†	268.0	106.2	69.336 µg/L	69.336 ppb	17:08:00
2	Mg 279.077 IEC†	18.8	6.2	55.616 µg/L	55.616 ppb	17:08:21
2	Na 589.592 Radial†	718.0	254.2	78.078 µg/L	78.078 ppb	17:08:00
2	Sr 421.552†	118.8	91.4	0.8433 µg/L	0.8433 ppb	17:08:00
2	Sc 361.383	1967750.3	1967750.3	100.24 %		17:09:29
2	Y 371.029	1358640.9	1358640.9	100.44 %		17:09:29
2	Ag 328.068†	-328.6	73.7	0.5515 µg/L	0.5515 ppb	17:09:34
2	As 188.979†	0.4	0.9	1.5587 µg/L	1.5587 ppb	17:09:55
2	B 249.677†	564.6	179.1	7.2933 µg/L	7.2933 ppb	17:09:34
2	Ba 233.527†	22.7	39.7	0.9547 µg/L	0.9547 ppb	17:09:55
2	Be 313.107†	-2501.6	360.0	0.2134 µg/L	0.2134 ppb	17:09:34
2	Cd 226.502†	-111.0	30.9	0.7694 µg/L	0.7694 ppb	17:09:55
2	Co 228.616†	5.7	3.7	0.1688 µg/L	0.1688 ppb	17:09:55
2	Cr 267.716†	-17.2	33.2	0.6680 µg/L	0.6680 ppb	17:09:34
2	Cu 324.752†	2799.6	249.3	1.6293 µg/L	1.6293 ppb	17:09:34
2	Mn 257.610†	-100.4	155.9	0.4879 µg/L	0.4879 ppb	17:09:55
2	Mo 202.031†	11.5	16.9	1.6521 µg/L	1.6521 ppb	17:09:55
2	Ni 231.604†	309.9	-3.2	-0.1576 µg/L	-0.1576 ppb	17:09:55
2	P 214.914†	22.6	7.2	14.217 µg/L	14.217 ppb	17:09:55
2	Pb 220.353†	112.5	21.3	5.1809 µg/L	5.1809 ppb	17:09:55

2	S 181.975 Axial†	17.8	-1.2	-5.0873 µg/L	-5.0873 ppb	17:09:55
2	Sb 206.836†	28.6	6.1	5.5939 µg/L	5.5939 ppb	17:09:55
2	Se 196.026†	12.5	-6.8	-9.5638 µg/L	-9.5638 ppb	17:09:55
2	SiO2†	1499.4	104.3	20.597 µg/L	20.597 ppb	17:09:34
2	Si 251.611†	402.2	90.6	6.8889 µg/L	6.8889 ppb	17:09:55
2	Sn 189.927†	9.5	9.2	3.8641 µg/L	3.8641 ppb	17:09:55
2	Ti 334.940†	469.3	293.2	0.6444 µg/L	0.6444 ppb	17:09:34
2	Tl 190.801†	-20.6	1.9	2.4344 µg/L	2.4344 ppb	17:09:55
2	U 409.014†	-26.6	50.5	4.1927 µg/L	4.1927 ppb	17:09:34
2	V 292.402†	21.3	66.0	0.6641 µg/L	0.6641 ppb	17:09:34
2	Zn 213.857†	610.2	74.4	1.7390 µg/L	1.7390 ppb	17:09:55
3	Sc RADIAL	55020.8	55020.8	97.4 %		17:08:26
3	Al 396.153Radial†	25.2	18.5	12.855 µg/L	12.855 ppb	17:08:26
3	Ca 317.933Radial†	219.3	13.9	11.843 µg/L	11.843 ppb	17:08:46
3	Fe 238.204 Radial†	16.8	0.7	5.5902 µg/L	5.5902 ppb	17:08:46
3	K 766.490 Radial†	318.2	161.7	105.61 µg/L	105.61 ppb	17:08:26
3	Mg 279.077 IEC†	14.2	1.7	15.617 µg/L	15.617 ppb	17:08:46
3	Na 589.592 Radial†	674.2	220.1	67.603 µg/L	67.603 ppb	17:08:26
3	Sr 421.552†	108.4	82.5	0.7609 µg/L	0.7609 ppb	17:08:26
3	Sc 361.383	1948909.4	1948909.4	99.276 %		17:10:01
3	Y 371.029	1346308.2	1346308.2	99.523 %		17:10:01
3	Ag 328.068†	-352.8	46.2	0.3442 µg/L	0.3442 ppb	17:10:07
3	As 188.979†	-1.2	-0.7	-1.3112 µg/L	-1.3112 ppb	17:10:27
3	B 249.677†	510.9	130.5	5.3165 µg/L	5.3165 ppb	17:10:07
3	Ba 233.527†	13.0	30.2	0.7245 µg/L	0.7245 ppb	17:10:27
3	Be 313.107†	-2546.8	290.3	0.1721 µg/L	0.1721 ppb	17:10:07
3	Cd 226.502†	-112.3	28.5	0.7115 µg/L	0.7115 ppb	17:10:27
3	Co 228.616†	15.8	14.0	0.6325 µg/L	0.6325 ppb	17:10:27
3	Cr 267.716†	5.2	55.6	1.1178 µg/L	1.1178 ppb	17:10:07
3	Cu 324.752†	2793.0	269.6	1.7608 µg/L	1.7608 ppb	17:10:07
3	Mn 257.610†	-128.7	126.3	0.3957 µg/L	0.3957 ppb	17:10:27
3	Mo 202.031†	14.1	19.5	1.9140 µg/L	1.9140 ppb	17:10:27
3	Ni 231.604†	312.1	2.0	0.1004 µg/L	0.1004 ppb	17:10:27
3	P 214.914†	16.0	0.8	1.3809 µg/L	1.3809 ppb	17:10:27
3	Pb 220.353†	106.0	15.9	3.8630 µg/L	3.8630 ppb	17:10:27
3	S 181.975 Axial†	14.2	-4.6	-19.132 µg/L	-19.132 ppb	17:10:27
3	Sb 206.836†	16.0	-6.4	-5.8776 µg/L	-5.8776 ppb	17:10:27
3	Se 196.026†	18.1	-1.1	-1.5391 µg/L	-1.5391 ppb	17:10:27
3	SiO2†	1473.7	92.8	18.326 µg/L	18.326 ppb	17:10:07
3	Si 251.611†	414.5	106.9	8.1279 µg/L	8.1279 ppb	17:10:27
3	Sn 189.927†	10.6	10.3	4.3488 µg/L	4.3488 ppb	17:10:27
3	Ti 334.940†	439.9	268.1	0.5920 µg/L	0.5920 ppb	17:10:07
3	Tl 190.801†	-23.3	-1.1	-1.4129 µg/L	-1.4129 ppb	17:10:27
3	U 409.014†	-71.7	4.9	0.4060 µg/L	0.4060 ppb	17:10:07
3	V 292.402†	-20.7	23.9	0.2511 µg/L	0.2511 ppb	17:10:07
3	Zn 213.857†	601.7	71.7	1.6777 µg/L	1.6777 ppb	17:10:27

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1956162.9	99.646 %		0.5166			0.52%
Sc RADIAL	55426.3	98.1 %		0.73			0.74%
Y 371.029	1350683.2	99.847 %		0.5103			0.51%
Ag 328.068†	35.8	0.2691 µg/L		0.32647	0.2691 ppb	0.32647	121.32%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	19.3	13.407 µg/L		7.9584	13.407 ppb	7.9584	59.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	0.5	0.9641 µg/L		2.04391	0.9641 ppb	2.04391	212.00%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	158.6	6.4608 µg/L		1.02461	6.4608 ppb	1.02461	15.86%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	33.3	0.8013 µg/L		0.13279	0.8013 ppb	0.13279	16.57%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	334.0	0.1980 µg/L		0.02257	0.1980 ppb	0.02257	11.40%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	17.4	14.871 µg/L		3.1063	14.871 ppb	3.1063	20.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	31.5	0.7844 µg/L		0.08148	0.7844 ppb	0.08148	10.39%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	8.0	0.3640 µg/L		0.24037	0.3640 ppb	0.24037	66.04%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	47.5	0.9550 µg/L	0.24930	0.9550 ppb	0.24930	26.10%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	274.8	1.7950 µg/L	0.18518	1.7950 ppb	0.18518	10.32%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	1.2	9.5227 µg/L	4.93823	9.5227 ppb	4.93823	51.86%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	124.0	80.963 µg/L	21.3541	80.963 ppb	21.3541	26.38%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	3.8	34.385 µg/L	20.1131	34.385 ppb	20.1131	58.49%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	147.7	0.4623 µg/L	0.05817	0.4623 ppb	0.05817	12.58%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	17.7	1.7309 µg/L	0.15903	1.7309 ppb	0.15903	9.19%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	234.8	72.131 µg/L	5.3801	72.131 ppb	5.3801	7.46%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	5.9	0.2959 µg/L	0.57673	0.2959 ppb	0.57673	194.90%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	3.4	6.6410 µg/L	6.72404	6.6410 ppb	6.72404	101.25%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	21.4	5.2065 µg/L	1.35647	5.2065 ppb	1.35647	26.05%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-3.6	-14.976 µg/L	8.5998	-14.976 ppb	8.5998	57.42%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	0.6	0.5280 µg/L	5.85192	0.5280 ppb	5.85192	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-6.4	-8.9385 µg/L	7.10744	-8.9385 ppb	7.10744	79.51%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		104.2	20.576 µg/L	2.2394	20.576 ppb	2.2394	10.88%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	95.4	7.2544 µg/L	0.75977	7.2544 ppb	0.75977	10.47%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	9.0	3.8070 µg/L	0.57241	3.8070 ppb	0.57241	15.04%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	83.0	0.7656 µg/L	0.07544	0.7656 ppb	0.07544	9.85%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	269.7	0.5942 µg/L	0.04915	0.5942 ppb	0.04915	8.27%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-1.0	-1.2763 µg/L	3.64442	-1.2763 ppb	3.64442	285.54%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	43.4	3.6004 µg/L	2.94331	3.6004 ppb	2.94331	81.75%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	54.8	0.5546 µg/L	0.26626	0.5546 ppb	0.26626	48.01%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	79.8	1.8665 µg/L	0.27558	1.8665 ppb	0.27558	14.76%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

=====  
Analysis Begun

Start Time: 2/19/2010 17:18:12

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\021910E.sif

Batch ID:

Results Data Set: 021910A

Results Library: c:\pe\optimal\Results\Results.mdb

=====  
Method Loaded

Method Name: Gen Eng fast\_new Si

Method Last Saved: 2/19/2010 16:28:12

IEC File: 011510.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 113

Sample ID: LR2

Date Collected: 2/19/2010 17:18:14

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57089.6	57089.6	101 %		17:18:49
1	Al 396.153Radial†	-10.5	-17.7	-12.364 µg/L	-12.364 ppb	17:18:49
1	Ca 317.933Radial†	228.9	15.3	13.039 µg/L	13.039 ppb	17:19:09
1	Fe 238.204 Radial†	8.4	-8.2	43.697 µg/L	43.697 ppb	17:19:09



1	K 766.490 Radial†	220.7	53.4	34.889 µg/L	34.889 ppb	17:18:49
1	Mg 279.077 IEC†	10.1	-2.8	-24.911 µg/L	-24.911 ppb	17:19:09
1	Na 589.592 Radial†	602.0	123.6	37.957 µg/L	37.957 ppb	17:18:49
1	Sr 421.552†	60.8	31.4	0.2896 µg/L	0.2896 ppb	17:18:49
1	Sc 361.383	1992980.4	1992980.4	101.52 %		17:20:12
1	Y 371.029	1370801.5	1370801.5	101.33 %		17:20:12
1	Ag 328.068†	-413.2	-5.4	-0.0402 µg/L	-0.0402 ppb	17:20:18
1	As 188.979†	2879.0	2836.3	5083.5 µg/L	5083.5 ppb	17:20:38
1	B 249.677†	863.8	466.7	19.057 µg/L	19.057 ppb	17:20:18
1	Ba 233.527†	-3.1	14.0	0.3366 µg/L	0.3366 ppb	17:20:38
1	Be 313.107†	-2634.3	260.8	0.1545 µg/L	0.1545 ppb	17:20:18
1	Cd 226.502†	-101.6	41.6	1.0480 µg/L	1.0480 ppb	17:20:38
1	Co 228.616†	114754.7	113033.4	5119.0 µg/L	5119.0 ppb	17:20:18
1	Cr 267.716†	-18.5	32.2	0.6465 µg/L	0.6465 ppb	17:20:18
1	Cu 324.752†	1806.3	-764.5	-4.9994 µg/L	-4.9994 ppb	17:20:18
1	Mn 257.610†	-157.7	100.7	0.3076 µg/L	0.3076 ppb	17:20:38
1	Mo 202.031†	8.0	13.2	1.2927 µg/L	1.2927 ppb	17:20:38
1	Ni 231.604†	383.1	65.0	-2.8550 µg/L	-2.8550 ppb	17:20:38
1	P 214.914†	5661.5	5561.4	11011 µg/L	11011 ppb	17:20:18
1	Pb 220.353†	103.9	11.4	2.7844 µg/L	2.7844 ppb	17:20:38
1	S 181.975 Axial†	11.6	-7.5	-31.222 µg/L	-31.222 ppb	17:20:38
1	Sb 206.836†	26.1	3.2	2.9217 µg/L	2.9217 ppb	17:20:38
1	Se 196.026†	15.5	-4.1	-5.9032 µg/L	-5.9032 ppb	17:20:38
1	SiO2†	426908.6	419120.7	82729 µg/L	82729 ppb	17:20:12
1	Si 251.611†	511420.1	503446.9	38273 µg/L	38273 ppb	17:20:12
1	Sn 189.927†	7.7	7.2	3.0305 µg/L	3.0305 ppb	17:20:38
1	Ti 334.940†	600.4	416.4	0.9232 µg/L	0.9232 ppb	17:20:18
1	Tl 190.801†	0.4	22.7	12.314 µg/L	12.314 ppb	17:20:38
1	U 409.014†	-95.3	-16.8	-1.3899 µg/L	-1.3899 ppb	17:20:18
1	V 292.402†	13.1	57.7	0.5647 µg/L	0.5647 ppb	17:20:18
1	Zn 213.857†	632.3	88.4	2.0732 µg/L	2.0732 ppb	17:20:38
2	Sc RADIAL	56165.6	56165.6	99.4 %		17:19:15
2	Al 396.153Radial†	-6.9	-14.3	-9.9617 µg/L	-9.9617 ppb	17:19:15
2	Ca 317.933Radial†	216.0	6.0	5.1201 µg/L	5.1201 ppb	17:19:35
2	Fe 238.204 Radial†	7.6	-8.9	36.342 µg/L	36.342 ppb	17:19:35
2	K 766.490 Radial†	221.8	58.1	37.930 µg/L	37.930 ppb	17:19:15
2	Mg 279.077 IEC†	7.5	-5.3	-47.450 µg/L	-47.450 ppb	17:19:35
2	Na 589.592 Radial†	593.1	124.4	38.204 µg/L	38.204 ppb	17:19:15
2	Sr 421.552†	33.6	5.0	0.0462 µg/L	0.0462 ppb	17:19:15
2	Sc 361.383	2021073.3	2021073.3	102.95 %		17:20:45
2	Y 371.029	1388832.8	1388832.8	102.67 %		17:20:45
2	Ag 328.068†	-393.4	19.5	0.1414 µg/L	0.1414 ppb	17:20:50
2	As 188.979†	2798.9	2719.1	4873.4 µg/L	4873.4 ppb	17:21:11
2	B 249.677†	844.8	436.4	17.824 µg/L	17.824 ppb	17:20:50
2	Ba 233.527†	-4.8	12.4	0.2992 µg/L	0.2992 ppb	17:21:11
2	Be 313.107†	-2671.8	260.5	0.1543 µg/L	0.1543 ppb	17:20:50
2	Cd 226.502†	-106.1	38.6	0.9740 µg/L	0.9740 ppb	17:21:11
2	Co 228.616†	114007.7	110736.6	5015.0 µg/L	5015.0 ppb	17:20:50
2	Cr 267.716†	-23.2	27.9	0.5600 µg/L	0.5600 ppb	17:20:50
2	Cu 324.752†	1789.0	-806.1	-5.2714 µg/L	-5.2714 ppb	17:20:50
2	Mn 257.610†	-160.2	100.4	0.3070 µg/L	0.3070 ppb	17:21:11
2	Mo 202.031†	1.7	7.0	0.6793 µg/L	0.6793 ppb	17:21:11
2	Ni 231.604†	365.6	42.8	-3.8392 µg/L	-3.8392 ppb	17:21:11
2	P 214.914†	5616.7	5440.3	10772 µg/L	10772 ppb	17:20:50
2	Pb 220.353†	110.3	16.2	3.9509 µg/L	3.9509 ppb	17:21:11
2	S 181.975 Axial†	18.6	-0.9	-3.7186 µg/L	-3.7186 ppb	17:21:11
2	Sb 206.836†	25.8	2.5	2.3409 µg/L	2.3409 ppb	17:21:11
2	Se 196.026†	13.5	-6.2	-8.8057 µg/L	-8.8057 ppb	17:21:11
2	SiO2†	425202.9	411618.8	81248 µg/L	81248 ppb	17:20:45
2	Si 251.611†	509536.8	494615.4	37602 µg/L	37602 ppb	17:20:45
2	Sn 189.927†	2.6	2.2	0.9156 µg/L	0.9156 ppb	17:21:11
2	Ti 334.940†	589.0	397.1	0.8822 µg/L	0.8822 ppb	17:20:50
2	Tl 190.801†	0.9	23.3	13.383 µg/L	13.383 ppb	17:21:11
2	U 409.014†	-89.3	-9.7	-0.7935 µg/L	-0.7935 ppb	17:20:50
2	V 292.402†	-20.8	24.5	0.2365 µg/L	0.2365 ppb	17:20:50
2	Zn 213.857†	620.1	67.9	1.5977 µg/L	1.5977 ppb	17:21:11
3	Sc RADIAL	56192.1	56192.1	99.5 %		17:19:41
3	Al 396.153Radial†	-3.6	-11.0	-7.6627 µg/L	-7.6627 ppb	17:19:41
3	Ca 317.933Radial†	218.7	8.6	7.3845 µg/L	7.3845 ppb	17:20:01
3	Fe 238.204 Radial†	9.7	-6.8	38.692 µg/L	38.692 ppb	17:20:01
3	K 766.490 Radial†	214.2	50.4	32.899 µg/L	32.899 ppb	17:19:41

3	Mg 279.077 IEC†	13.9	1.2	10.769 µg/L	10.769 ppb	17:20:01
3	Na 589.592 Radial†	600.0	131.0	40.239 µg/L	40.239 ppb	17:19:41
3	Sr 421.552†	67.6	39.2	0.3616 µg/L	0.3616 ppb	17:19:41
3	Sc 361.383	1998637.7	1998637.7	101.81 %		17:21:17
3	Y 371.029	1373104.8	1373104.8	101.50 %		17:21:17
3	Ag 328.068†	-417.7	-8.6	-0.0666 µg/L	-0.0666 ppb	17:21:23
3	As 188.979†	2369.6	2327.9	4172.3 µg/L	4172.3 ppb	17:21:43
3	B 249.677†	832.0	433.0	17.679 µg/L	17.679 ppb	17:21:23
3	Ba 233.527†	-4.2	12.9	0.3111 µg/L	0.3111 ppb	17:21:43
3	Be 313.107†	-2497.8	402.3	0.2384 µg/L	0.2384 ppb	17:21:23
3	Cd 226.502†	-118.0	25.8	0.6517 µg/L	0.6517 ppb	17:21:43
3	Co 228.616†	98118.9	96373.3	4364.5 µg/L	4364.5 ppb	17:21:23
3	Cr 267.716†	-6.1	44.4	0.8924 µg/L	0.8924 ppb	17:21:23
3	Cu 324.752†	1945.6	-632.7	-4.1375 µg/L	-4.1375 ppb	17:21:23
3	Mn 257.610†	-181.8	77.4	0.2349 µg/L	0.2349 ppb	17:21:43
3	Mo 202.031†	-0.1	5.3	0.5134 µg/L	0.5134 ppb	17:21:43
3	Ni 231.604†	349.6	31.0	-3.6536 µg/L	-3.6536 ppb	17:21:43
3	P 214.914†	4913.6	4810.9	9525.5 µg/L	9525.5 ppb	17:21:23
3	Pb 220.353†	106.2	13.4	3.2602 µg/L	3.2602 ppb	17:21:43
3	S 181.975 Axial†	19.1	-0.2	-0.8917 µg/L	-0.8917 ppb	17:21:43
3	Sb 206.836†	17.0	-5.8	-5.3639 µg/L	-5.3639 ppb	17:21:43
3	Se 196.026†	14.4	-5.1	-7.3641 µg/L	-7.3641 ppb	17:21:43
3	SiO2†	388378.1	380084.6	75024 µg/L	75024 ppb	17:21:17
3	Si 251.611†	465723.5	457136.5	34752 µg/L	34752 ppb	17:21:17
3	Sn 189.927†	7.2	6.7	2.8419 µg/L	2.8419 ppb	17:21:43
3	Ti 334.940†	599.4	413.7	0.9146 µg/L	0.9146 ppb	17:21:23
3	Tl 190.801†	-3.1	19.4	10.494 µg/L	10.494 ppb	17:21:43
3	U 409.014†	-33.0	44.6	3.7148 µg/L	3.7148 ppb	17:21:23
3	V 292.402†	-34.4	11.0	0.1103 µg/L	0.1103 ppb	17:21:23
3	Zn 213.857†	609.9	64.6	1.5181 µg/L	1.5181 ppb	17:21:43

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2004230.5	102.09 %	0.757			0.74%
Sc RADIAL	56482.4	100.0 %	0.93			0.93%
Y 371.029	1377579.7	101.84 %	0.725			0.71%
Ag 328.068†	1.8	0.0115 µg/L	0.11324	0.0115 ppb	0.11324	983.61%
Al 396.153Radial†	-14.3	-9.9961 µg/L	2.35074	-9.9961 ppb	2.35074	23.52%
As 188.979†	2627.8	4709.7 µg/L	477.13	4709.7 ppb	477.13	10.13%
B 249.677†	445.4	18.187 µg/L	0.7573	18.187 ppb	0.7573	4.16%
Ba 233.527†	13.1	0.3156 µg/L	0.01910	0.3156 ppb	0.01910	6.05%
Be 313.107†	307.9	0.1824 µg/L	0.04852	0.1824 ppb	0.04852	26.60%
Ca 317.933Radial†	10.0	8.5144 µg/L	4.07847	8.5144 ppb	4.07847	47.90%
Cd 226.502†	35.4	0.8912 µg/L	0.21072	0.8912 ppb	0.21072	23.64%
Co 228.616†	106714.5	4832.9 µg/L	408.90	4832.9 ppb	408.90	8.46%
Cr 267.716†	34.8	0.6996 µg/L	0.17243	0.6996 ppb	0.17243	24.65%
Cu 324.752†	-734.4	-4.8027 µg/L	0.59198	-4.8027 ppb	0.59198	12.33%
Fe 238.204 Radial†	-8.0	39.577 µg/L	3.7566	39.577 ppb	3.7566	9.49%
K 766.490 Radial†	54.0	35.239 µg/L	2.5339	35.239 ppb	2.5339	7.19%
Mg 279.077 IEC†	-2.3	-20.531 µg/L	29.3558	-20.531 ppb	29.3558	142.98%
Mn 257.610†	92.8	0.2832 µg/L	0.04179	0.2832 ppb	0.04179	14.76%
Mo 202.031†	8.5	0.8285 µg/L	0.41049	0.8285 ppb	0.41049	49.55%
Na 589.592 Radial†	126.3	38.800 µg/L	1.2520	38.800 ppb	1.2520	3.23%
Ni 231.604†	46.3	-3.4493 µg/L	0.52296	-3.4493 ppb	0.52296	15.16%
P 214.914†	5270.9	10436 µg/L	797.7	10436 ppb	797.7	7.64%
Pb 220.353†	13.7	3.3319 µg/L	0.58655	3.3319 ppb	0.58655	17.60%
S 181.975 Axial†	-2.9	-11.944 µg/L	16.7551	-11.944 ppb	16.7551	140.28%
Sb 206.836†	-0.0	-0.0338 µg/L	4.62516	-0.0338 ppb	4.62516	>999.9%
Se 196.026†	-5.1	-7.3577 µg/L	1.45126	-7.3577 ppb	1.45126	19.72%
SiO2†	403608.1	79667 µg/L	4088.7	79667 ppb	4088.7	5.13%
Si 251.611†	485066.3	36876 µg/L	1869.2	36876 ppb	1869.2	5.07%
Sn 189.927†	5.4	2.2626 µg/L	1.17039	2.2626 ppb	1.17039	51.73%
Sr 421.552†	25.2	0.2325 µg/L	0.16530	0.2325 ppb	0.16530	71.11%
Ti 334.940†	409.0	0.9067 µg/L	0.02163	0.9067 ppb	0.02163	2.39%
Tl 190.801†	21.8	12.064 µg/L	1.4608	12.064 ppb	1.4608	12.11%
U 409.014†	6.0	0.5104 µg/L	2.79101	0.5104 ppb	2.79101	546.79%
V 292.402†	31.1	0.3038 µg/L	0.23456	0.3038 ppb	0.23456	77.20%
Zn 213.857†	73.7	1.7297 µg/L	0.30016	1.7297 ppb	0.30016	17.35%

Sequence No.: 2

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/19/2010 17:21:52

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55997.1	55997.1	99.1 %		17:22:28
1	Al 396.153Radial†	7484.4	7543.7	5236.5 µg/L	5236.5 ppb	17:22:28
1	Ca 317.933Radial†	6284.2	6128.9	5235.2 µg/L	5235.2 ppb	17:22:48
1	Fe 238.204 Radial†	689.0	678.6	5363.5 µg/L	5363.5 ppb	17:22:48
1	K 766.490 Radial†	8069.9	7976.8	5209.8 µg/L	5209.8 ppb	17:22:28
1	Mg 279.077 IEC†	607.2	599.8	5365.3 µg/L	5365.3 ppb	17:22:48
1	Na 589.592 Radial†	34612.1	34448.1	10580 µg/L	10580 ppb	17:22:28
1	Sr 421.552†	55249.7	55712.7	513.96 µg/L	513.96 ppb	17:22:28
1	Sc 361.383	1941292.6	1941292.6	98.888 %		17:23:51
1	Y 371.029	1335522.5	1335522.5	98.726 %		17:23:51
1	Ag 328.068†	70158.7	71349.1	532.40 µg/L	532.40 ppb	17:23:57
1	As 188.979†	304.1	308.0	550.96 µg/L	550.96 ppb	17:24:18
1	B 249.677†	13216.5	12981.0	527.15 µg/L	527.15 ppb	17:23:57
1	Ba 233.527†	22082.2	22347.5	537.47 µg/L	537.47 ppb	17:23:57
1	Be 313.107†	881057.8	893819.8	530.28 µg/L	530.28 ppb	17:23:51
1	Cd 226.502†	21234.9	21615.4	539.04 µg/L	539.04 ppb	17:23:57
1	Co 228.616†	11841.2	11972.4	541.59 µg/L	541.59 ppb	17:23:57
1	Cr 267.716†	26708.5	27059.1	543.83 µg/L	543.83 ppb	17:23:57
1	Cu 324.752†	83577.2	81973.2	535.82 µg/L	535.82 ppb	17:23:57
1	Mn 257.610†	169839.0	172004.6	539.13 µg/L	539.13 ppb	17:23:51
1	Mo 202.031†	5552.9	5620.6	550.61 µg/L	550.61 ppb	17:24:18
1	Ni 231.604†	11057.1	10869.0	541.24 µg/L	541.24 ppb	17:23:57
1	P 214.914†	1373.5	1373.6	2668.4 µg/L	2668.4 ppb	17:24:18
1	Pb 220.353†	2326.6	2261.9	550.03 µg/L	550.03 ppb	17:24:18
1	S 181.975 Axial†	279.6	263.8	1093.9 µg/L	1093.9 ppb	17:24:18
1	Sb 206.836†	611.1	595.5	549.07 µg/L	549.07 ppb	17:24:18
1	Se 196.026†	411.0	396.3	565.02 µg/L	565.02 ppb	17:24:18
1	SiO2†	30336.5	29286.0	5780.7 µg/L	5780.7 ppb	17:23:57
1	Si 251.611†	35486.6	35575.0	2704.5 µg/L	2704.5 ppb	17:23:57
1	Sn 189.927†	1307.2	1321.6	557.36 µg/L	557.36 ppb	17:24:18
1	Ti 334.940†	237204.0	239696.0	529.92 µg/L	529.92 ppb	17:23:51
1	Tl 190.801†	383.1	409.8	538.64 µg/L	538.64 ppb	17:24:18
1	U 409.014†	6443.7	6593.3	546.74 µg/L	546.74 ppb	17:23:57
1	V 292.402†	54369.9	55025.9	542.94 µg/L	542.94 ppb	17:23:57
1	Zn 213.857†	23470.8	23200.3	540.50 µg/L	540.50 ppb	17:23:57
2	Sc RADIAL	55374.2	55374.2	98.0 %		17:22:54
2	Al 396.153Radial†	7516.3	7661.2	5318.8 µg/L	5318.8 ppb	17:22:54
2	Ca 317.933Radial†	6316.8	6233.4	5324.5 µg/L	5324.5 ppb	17:23:14
2	Fe 238.204 Radial†	689.1	686.5	5425.5 µg/L	5425.5 ppb	17:23:14
2	K 766.490 Radial†	8078.4	8077.0	5275.2 µg/L	5275.2 ppb	17:22:54
2	Mg 279.077 IEC†	616.4	616.1	5510.0 µg/L	5510.0 ppb	17:23:14
2	Na 589.592 Radial†	34699.9	34930.4	10729 µg/L	10729 ppb	17:22:54
2	Sr 421.552†	55215.6	56305.0	519.42 µg/L	519.42 ppb	17:22:54
2	Sc 361.383	1972008.9	1972008.9	100.45 %		17:24:25
2	Y 371.029	1357440.8	1357440.8	100.35 %		17:24:25
2	Ag 328.068†	69394.0	69482.8	518.48 µg/L	518.48 ppb	17:24:30
2	As 188.979†	292.5	291.6	521.69 µg/L	521.69 ppb	17:24:51
2	B 249.677†	13098.0	12654.8	513.80 µg/L	513.80 ppb	17:24:30
2	Ba 233.527†	21766.9	21685.9	521.56 µg/L	521.56 ppb	17:24:30
2	Be 313.107†	875557.6	874466.7	518.80 µg/L	518.80 ppb	17:24:25
2	Cd 226.502†	20934.5	20981.8	523.22 µg/L	523.22 ppb	17:24:30
2	Co 228.616†	11674.3	11619.7	525.62 µg/L	525.62 ppb	17:24:30
2	Cr 267.716†	26349.4	26281.0	528.19 µg/L	528.19 ppb	17:24:30
2	Cu 324.752†	82762.2	79845.4	521.94 µg/L	521.94 ppb	17:24:30
2	Mn 257.610†	168819.9	168315.0	527.58 µg/L	527.58 ppb	17:24:25
2	Mo 202.031†	5374.4	5355.5	524.65 µg/L	524.65 ppb	17:24:51
2	Ni 231.604†	10896.7	10535.3	524.62 µg/L	524.62 ppb	17:24:30
2	P 214.914†	1349.1	1327.7	2578.5 µg/L	2578.5 ppb	17:24:51
2	Pb 220.353†	2255.8	2154.7	523.94 µg/L	523.94 ppb	17:24:51

2	S 181.975 Axial†	273.6	253.5	1051.2 µg/L	1051.2 ppb	17:24:51
2	Sb 206.836†	597.1	571.9	527.15 µg/L	527.15 ppb	17:24:51
2	Se 196.026†	399.0	377.9	539.15 µg/L	539.15 ppb	17:24:51
2	SiO2†	30015.2	28488.3	5623.2 µg/L	5623.2 ppb	17:24:30
2	Si 251.611†	35058.2	34589.5	2629.6 µg/L	2629.6 ppb	17:24:30
2	Sn 189.927†	1256.6	1250.5	527.41 µg/L	527.41 ppb	17:24:51
2	Ti 334.940†	235686.9	234449.5	518.30 µg/L	518.30 ppb	17:24:25
2	Tl 190.801†	379.7	400.4	526.29 µg/L	526.29 ppb	17:24:51
2	U 409.014†	6398.7	6446.9	534.56 µg/L	534.56 ppb	17:24:30
2	V 292.402†	53704.7	53507.4	527.90 µg/L	527.90 ppb	17:24:30
2	Zn 213.857†	23141.6	22502.9	524.22 µg/L	524.22 ppb	17:24:30
3	Sc RADIAL	55679.0	55679.0	98.6 %		17:23:19
3	Al 396.153Radial†	7596.6	7700.7	5348.4 µg/L	5348.4 ppb	17:23:19
3	Ca 317.933Radial†	6283.1	6164.0	5265.1 µg/L	5265.1 ppb	17:23:40
3	Fe 238.204 Radial†	686.1	679.6	5369.7 µg/L	5369.7 ppb	17:23:40
3	K 766.490 Radial†	8154.7	8109.3	5296.3 µg/L	5296.3 ppb	17:23:19
3	Mg 279.077 IEC†	612.2	608.4	5439.6 µg/L	5439.6 ppb	17:23:40
3	Na 589.592 Radial†	34975.0	35015.8	10755 µg/L	10755 ppb	17:23:19
3	Sr 421.552†	55908.1	56699.3	523.06 µg/L	523.06 ppb	17:23:19
3	Sc 361.383	1952535.0	1952535.0	99.461 %		17:24:58
3	Y 371.029	1343624.0	1343624.0	99.325 %		17:24:58
3	Ag 328.068†	63360.5	64105.6	478.17 µg/L	478.17 ppb	17:25:04
3	As 188.979†	241.7	243.4	435.49 µg/L	435.49 ppb	17:25:24
3	B 249.677†	11843.3	11523.4	467.57 µg/L	467.57 ppb	17:25:04
3	Ba 233.527†	19104.2	19224.8	462.34 µg/L	462.34 ppb	17:25:04
3	Be 313.107†	780835.5	787924.2	467.46 µg/L	467.46 ppb	17:24:58
3	Cd 226.502†	18231.2	18471.7	460.55 µg/L	460.55 ppb	17:25:04
3	Co 228.616†	10034.6	10087.0	456.23 µg/L	456.23 ppb	17:25:04
3	Cr 267.716†	21902.6	22071.8	443.60 µg/L	443.60 ppb	17:25:04
3	Cu 324.752†	72242.1	70090.0	458.26 µg/L	458.26 ppb	17:25:04
3	Mn 257.610†	151408.5	152485.3	478.01 µg/L	478.01 ppb	17:24:58
3	Mo 202.031†	4271.9	4300.4	421.32 µg/L	421.32 ppb	17:25:24
3	Ni 231.604†	9447.8	9186.7	457.48 µg/L	457.48 ppb	17:25:04
3	P 214.914†	1083.3	1073.8	2080.9 µg/L	2080.9 ppb	17:25:24
3	Pb 220.353†	1873.7	1793.0	435.92 µg/L	435.92 ppb	17:25:24
3	S 181.975 Axial†	233.8	216.1	896.36 µg/L	896.36 ppb	17:25:24
3	Sb 206.836†	489.4	469.6	432.51 µg/L	432.51 ppb	17:25:24
3	Se 196.026†	332.8	315.3	451.15 µg/L	451.15 ppb	17:25:24
3	SiO2†	26947.7	25702.2	5073.3 µg/L	5073.3 ppb	17:25:04
3	Si 251.611†	31277.9	31136.9	2367.1 µg/L	2367.1 ppb	17:25:04
3	Sn 189.927†	976.9	981.8	414.09 µg/L	414.09 ppb	17:25:24
3	Ti 334.940†	208555.8	209511.3	463.14 µg/L	463.14 ppb	17:24:58
3	Tl 190.801†	319.8	343.9	452.38 µg/L	452.38 ppb	17:25:24
3	U 409.014†	5254.4	5360.0	444.27 µg/L	444.27 ppb	17:25:04
3	V 292.402†	45815.6	46108.8	454.70 µg/L	454.70 ppb	17:25:04
3	Zn 213.857†	20168.8	19743.8	459.90 µg/L	459.90 ppb	17:25:04

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1955278.8	99.601 %	0.7916			0.79%
Sc RADIAL	55683.5	98.6 %	0.55			0.56%
Y 371.029	1345529.1	99.466 %	0.8193			0.82%
Ag 328.068†	68312.5	509.69 µg/L	28.165	509.69 ppb	28.165	5.53%
QC value within limits for Ag 328.068 Recovery = 101.94%						
Al 396.153Radial†	7635.2	5301.2 µg/L	57.98	5301.2 ppb	57.98	1.09%
QC value within limits for Al 396.153Radial Recovery = 106.02%						
As 188.979†	281.0	502.71 µg/L	60.027	502.71 ppb	60.027	11.94%
QC value within limits for As 188.979 Recovery = 100.54%						
B 249.677†	12386.4	502.84 µg/L	31.261	502.84 ppb	31.261	6.22%
QC value within limits for B 249.677 Recovery = 100.57%						
Ba 233.527†	21086.1	507.12 µg/L	39.588	507.12 ppb	39.588	7.81%
QC value within limits for Ba 233.527 Recovery = 101.42%						
Be 313.107†	852070.2	505.52 µg/L	33.453	505.52 ppb	33.453	6.62%
QC value within limits for Be 313.107 Recovery = 101.10%						
Ca 317.933Radial†	6175.4	5274.9 µg/L	45.45	5274.9 ppb	45.45	0.86%
QC value within limits for Ca 317.933Radial Recovery = 105.50%						
Cd 226.502†	20356.3	507.61 µg/L	41.509	507.61 ppb	41.509	8.18%
QC value within limits for Cd 226.502 Recovery = 101.52%						
Co 228.616†	11226.4	507.82 µg/L	45.380	507.82 ppb	45.380	8.94%

Cr	267.716†	25137.3	505.21 µg/L	53.922	505.21 ppb	53.922	10.67%
QC value within limits for Cr 267.716 Recovery = 101.04%							
Cu	324.752†	77302.9	505.34 µg/L	41.362	505.34 ppb	41.362	8.19%
QC value within limits for Cu 324.752 Recovery = 101.07%							
Fe	238.204 Radial†	681.6	5386.2 µg/L	34.14	5386.2 ppb	34.14	0.63%
QC value within limits for Fe 238.204 Radial Recovery = 107.72%							
K	766.490 Radial†	8054.3	5260.4 µg/L	45.13	5260.4 ppb	45.13	0.86%
QC value within limits for K 766.490 Radial Recovery = 105.21%							
Mg	279.077 IEC†	608.1	5438.3 µg/L	72.33	5438.3 ppb	72.33	1.33%
QC value within limits for Mg 279.077 IEC Recovery = 108.77%							
Mn	257.610†	164268.3	514.91 µg/L	32.475	514.91 ppb	32.475	6.31%
QC value within limits for Mn 257.610 Recovery = 102.98%							
Mo	202.031†	5092.2	498.86 µg/L	68.394	498.86 ppb	68.394	13.71%
QC value within limits for Mo 202.031 Recovery = 99.77%							
Na	589.592 Radial†	34798.1	10688 µg/L	94.0	10688 ppb	94.0	0.88%
QC value within limits for Na 589.592 Radial Recovery = 106.88%							
Ni	231.604†	10197.0	507.78 µg/L	44.349	507.78 ppb	44.349	8.73%
QC value within limits for Ni 231.604 Recovery = 101.56%							
P	214.914†	1258.3	2442.6 µg/L	316.42	2442.6 ppb	316.42	12.95%
QC value within limits for P 214.914 Recovery = 97.70%							
Pb	220.353†	2069.8	503.29 µg/L	59.790	503.29 ppb	59.790	11.88%
QC value within limits for Pb 220.353 Recovery = 100.66%							
S	181.975 Axial†	244.5	1013.8 µg/L	103.94	1013.8 ppb	103.94	10.25%
QC value within limits for S 181.975 Axial Recovery = 101.38%							
Sb	206.836†	545.7	502.91 µg/L	61.945	502.91 ppb	61.945	12.32%
QC value within limits for Sb 206.836 Recovery = 100.58%							
Se	196.026†	363.2	518.44 µg/L	59.692	518.44 ppb	59.692	11.51%
QC value within limits for Se 196.026 Recovery = 103.69%							
SiO2†		27825.5	5492.4 µg/L	371.40	5492.4 ppb	371.40	6.76%
QC value within limits for SiO2 Recovery = 102.71%							
Si	251.611†	33767.1	2567.0 µg/L	177.17	2567.0 ppb	177.17	6.90%
QC value within limits for Si 251.611 Recovery = 102.68%							
Sn	189.927†	1184.6	499.62 µg/L	75.568	499.62 ppb	75.568	15.13%
QC value within limits for Sn 189.927 Recovery = 99.92%							
Sr	421.552†	56239.0	518.81 µg/L	4.581	518.81 ppb	4.581	0.88%
QC value within limits for Sr 421.552 Recovery = 103.76%							
Ti	334.940†	227885.6	503.79 µg/L	35.678	503.79 ppb	35.678	7.08%
QC value within limits for Ti 334.940 Recovery = 100.76%							
Tl	190.801†	384.7	505.77 µg/L	46.646	505.77 ppb	46.646	9.22%
QC value within limits for Tl 190.801 Recovery = 101.15%							
U	409.014†	6133.4	508.52 µg/L	55.977	508.52 ppb	55.977	11.01%
QC value within limits for U 409.014 Recovery = 101.70%							
V	292.402†	51547.4	508.51 µg/L	47.203	508.51 ppb	47.203	9.28%
QC value within limits for V 292.402 Recovery = 101.70%							
Zn	213.857†	21815.7	508.21 µg/L	42.623	508.21 ppb	42.623	8.39%
QC value within limits for Zn 213.857 Recovery = 101.64%							

All analyte(s) passed QC.

Sequence No.: 3

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/19/2010 17:25:33

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55715.1	55715.1	98.6 %		17:26:06
1	Al 396.153Radial†	9.9	2.7	1.8794 µg/L	1.8794 ppb	17:26:06
1	Ca 317.933Radial†	200.0	-8.4	-7.2065 µg/L	-7.2065 ppb	17:26:26
1	Fe 238.204 Radial†	18.1	1.8	14.281 µg/L	14.281 ppb	17:26:26
1	K 766.490 Radial†	190.3	28.0	18.262 µg/L	18.262 ppb	17:26:06
1	Mg 279.077 IEC†	10.8	-1.8	-16.403 µg/L	-16.403 ppb	17:26:26
1	Na 589.592 Radial†	566.5	102.3	31.414 µg/L	31.414 ppb	17:26:06
1	Sr 421.552†	8.2	-20.5	-0.1895 µg/L	-0.1895 ppb	17:26:06
1	Sc 361.383	1953458.7	1953458.7	99.508 %		17:27:28
1	Y 371.029	1347989.6	1347989.6	99.648 %		17:27:28
1	Ag 328.068†	-445.9	-46.5	-0.3428 µg/L	-0.3428 ppb	17:27:34
1	As 188.979†	1.8	2.2	4.0261 µg/L	4.0261 ppb	17:27:54
1	B 249.677†	402.6	20.4	0.8246 µg/L	0.8246 ppb	17:27:54
1	Ba 233.527†	-7.2	9.9	0.2372 µg/L	0.2372 ppb	17:27:54
1	Be 313.107†	-2535.3	307.9	0.1827 µg/L	0.1827 ppb	17:27:34
1	Cd 226.502†	-139.8	1.2	0.0290 µg/L	0.0290 ppb	17:27:54
1	Co 228.616†	8.7	6.8	0.3065 µg/L	0.3065 ppb	17:27:54
1	Cr 267.716†	-42.4	7.8	0.1560 µg/L	0.1560 ppb	17:27:34
1	Cu 324.752†	2642.5	111.8	0.7321 µg/L	0.7321 ppb	17:27:34
1	Mn 257.610†	-204.1	50.9	0.1618 µg/L	0.1618 ppb	17:27:54
1	Mo 202.031†	-2.0	3.3	0.3242 µg/L	0.3242 ppb	17:27:54
1	Ni 231.604†	314.6	3.8	0.1900 µg/L	0.1900 ppb	17:27:54
1	P 214.914†	18.8	3.5	6.8616 µg/L	6.8616 ppb	17:27:54
1	Pb 220.353†	98.3	7.8	1.8853 µg/L	1.8853 ppb	17:27:54
1	S 181.975 Axial†	15.5	-3.4	-14.112 µg/L	-14.112 ppb	17:27:54
1	Sb 206.836†	26.9	4.5	4.1739 µg/L	4.1739 ppb	17:27:54
1	Se 196.026†	12.3	-7.0	-9.7684 µg/L	-9.7684 ppb	17:27:54
1	SiO2†	1515.6	131.5	25.955 µg/L	25.955 ppb	17:27:34
1	Si 251.611†	416.0	107.4	8.1665 µg/L	8.1665 ppb	17:27:54
1	Sn 189.927†	2.2	1.9	0.7860 µg/L	0.7860 ppb	17:27:54
1	Ti 334.940†	256.5	82.7	0.1842 µg/L	0.1842 ppb	17:27:34
1	Tl 190.801†	-25.3	-3.1	-3.9679 µg/L	-3.9679 ppb	17:27:54
1	U 409.014†	32.9	110.1	9.1492 µg/L	9.1492 ppb	17:27:34
1	V 292.402†	-29.6	15.0	0.1604 µg/L	0.1604 ppb	17:27:34
1	Zn 213.857†	546.5	14.8	0.3443 µg/L	0.3443 ppb	17:27:54
2	Sc RADIAL	55504.2	55504.2	98.2 %		17:26:32
2	Al 396.153Radial†	11.6	4.4	3.0699 µg/L	3.0699 ppb	17:26:32
2	Ca 317.933Radial†	200.3	-7.4	-6.2839 µg/L	-6.2839 ppb	17:26:52
2	Fe 238.204 Radial†	17.9	1.6	12.645 µg/L	12.645 ppb	17:26:52
2	K 766.490 Radial†	201.9	40.6	26.491 µg/L	26.491 ppb	17:26:32
2	Mg 279.077 IEC†	10.5	-2.1	-19.078 µg/L	-19.078 ppb	17:26:52
2	Na 589.592 Radial†	562.4	100.3	30.804 µg/L	30.804 ppb	17:26:32
2	Sr 421.552†	36.5	8.4	0.0774 µg/L	0.0774 ppb	17:26:32
2	Sc 361.383	1950778.5	1950778.5	99.371 %		17:28:00
2	Y 371.029	1346193.0	1346193.0	99.515 %		17:28:00
2	Ag 328.068†	-396.0	3.1	0.0257 µg/L	0.0257 ppb	17:28:06
2	As 188.979†	1.1	1.6	2.8532 µg/L	2.8532 ppb	17:28:26
2	B 249.677†	390.0	8.3	0.3322 µg/L	0.3322 ppb	17:28:26
2	Ba 233.527†	-6.8	10.2	0.2452 µg/L	0.2452 ppb	17:28:26
2	Be 313.107†	-2616.4	222.8	0.1321 µg/L	0.1321 ppb	17:28:06
2	Cd 226.502†	-139.8	1.0	0.0242 µg/L	0.0242 ppb	17:28:26
2	Co 228.616†	3.7	1.8	0.0803 µg/L	0.0803 ppb	17:28:26
2	Cr 267.716†	-54.5	-4.5	-0.0900 µg/L	-0.0900 ppb	17:28:06
2	Cu 324.752†	2637.6	110.5	0.7233 µg/L	0.7233 ppb	17:28:06
2	Mn 257.610†	-213.1	41.5	0.1325 µg/L	0.1325 ppb	17:28:26
2	Mo 202.031†	-0.0	5.3	0.5204 µg/L	0.5204 ppb	17:28:26
2	Ni 231.604†	311.7	1.3	0.0651 µg/L	0.0651 ppb	17:28:26
2	P 214.914†	7.2	-8.1	-16.019 µg/L	-16.019 ppb	17:28:26
2	Pb 220.353†	96.7	6.4	1.5474 µg/L	1.5474 ppb	17:28:26

2	S 181.975 Axial†	17.4	-1.4	-5.8210 µg/L	-5.8210 ppb	17:28:26
2	Sb 206.836†	19.7	-2.6	-2.3998 µg/L	-2.3998 ppb	17:28:26
2	Se 196.026†	15.0	-4.2	-5.8108 µg/L	-5.8108 ppb	17:28:26
2	SiO2†	1459.9	77.6	15.313 µg/L	15.313 ppb	17:28:06
2	Si 251.611†	412.0	104.0	7.9062 µg/L	7.9062 ppb	17:28:26
2	Sn 189.927†	7.8	7.4	3.1294 µg/L	3.1294 ppb	17:28:26
2	Ti 334.940†	270.4	97.1	0.2161 µg/L	0.2161 ppb	17:28:06
2	Tl 190.801†	-21.2	1.0	1.3155 µg/L	1.3155 ppb	17:28:26
2	U 409.014†	-29.9	47.0	3.9019 µg/L	3.9019 ppb	17:28:06
2	V 292.402†	-11.1	33.5	0.3361 µg/L	0.3361 ppb	17:28:06
2	Zn 213.857†	544.6	13.6	0.3180 µg/L	0.3180 ppb	17:28:26
3	Sc RADIAL	55576.2	55576.2	98.4 %		17:26:57
3	Al 396.153Radial†	-4.2	-11.6	-8.0814 µg/L	-8.0814 ppb	17:26:57
3	Ca 317.933Radial†	198.4	-9.6	-8.1878 µg/L	-8.1878 ppb	17:27:18
3	Fe 238.204 Radial†	17.1	0.8	6.2197 µg/L	6.2197 ppb	17:27:18
3	K 766.490 Radial†	182.5	20.5	13.397 µg/L	13.397 ppb	17:26:57
3	Mg 279.077 IEC†	14.4	1.8	16.514 µg/L	16.514 ppb	17:27:18
3	Na 589.592 Radial†	564.0	101.1	31.056 µg/L	31.056 ppb	17:26:57
3	Sr 421.552†	84.4	57.0	0.5260 µg/L	0.5260 ppb	17:26:57
3	Sc 361.383	1984583.7	1984583.7	101.09 %		17:28:32
3	Y 371.029	1368650.9	1368650.9	101.18 %		17:28:32
3	Ag 328.068†	-463.7	-57.1	-0.4221 µg/L	-0.4221 ppb	17:28:38
3	As 188.979†	1.5	1.9	3.4901 µg/L	3.4901 ppb	17:28:58
3	B 249.677†	385.7	-2.6	-0.1102 µg/L	-0.1102 ppb	17:28:58
3	Ba 233.527†	-8.4	8.8	0.2107 µg/L	0.2107 ppb	17:28:58
3	Be 313.107†	-2606.1	277.8	0.1648 µg/L	0.1648 ppb	17:28:38
3	Cd 226.502†	-137.9	5.3	0.1312 µg/L	0.1312 ppb	17:28:58
3	Co 228.616†	11.7	9.7	0.4385 µg/L	0.4385 ppb	17:28:58
3	Cr 267.716†	-56.0	-5.0	-0.1002 µg/L	-0.1002 ppb	17:28:38
3	Cu 324.752†	2581.0	9.4	0.0621 µg/L	0.0621 ppb	17:28:38
3	Mn 257.610†	-221.0	37.4	0.1174 µg/L	0.1174 ppb	17:28:58
3	Mo 202.031†	2.7	8.0	0.7835 µg/L	0.7835 ppb	17:28:58
3	Ni 231.604†	311.4	-4.3	-0.2151 µg/L	-0.2151 ppb	17:28:58
3	P 214.914†	14.9	-0.6	-1.1261 µg/L	-1.1261 ppb	17:28:58
3	Pb 220.353†	89.4	-2.5	-0.6244 µg/L	-0.6244 ppb	17:28:58
3	S 181.975 Axial†	14.9	-4.2	-17.388 µg/L	-17.388 ppb	17:28:58
3	Sb 206.836†	22.0	-0.7	-0.6331 µg/L	-0.6331 ppb	17:28:58
3	Se 196.026†	16.1	-3.3	-4.6875 µg/L	-4.6875 ppb	17:28:58
3	SiO2†	1488.2	80.6	15.904 µg/L	15.904 ppb	17:28:38
3	Si 251.611†	405.3	90.2	6.8609 µg/L	6.8609 ppb	17:28:58
3	Sn 189.927†	5.4	5.0	2.0931 µg/L	2.0931 ppb	17:28:58
3	Ti 334.940†	242.9	65.3	0.1429 µg/L	0.1429 ppb	17:28:38
3	Tl 190.801†	-20.1	2.5	3.3063 µg/L	3.3063 ppb	17:28:58
3	U 409.014†	41.4	118.0	9.8042 µg/L	9.8042 ppb	17:28:38
3	V 292.402†	-37.8	7.4	0.0885 µg/L	0.0885 ppb	17:28:38
3	Zn 213.857†	537.5	-2.8	-0.0653 µg/L	-0.0653 ppb	17:28:58

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1962940.3	99.991 %	0.9572			0.96%
Sc RADIAL	55598.5	98.4 %	0.19			0.19%
Y 371.029	1354277.8	100.11 %	0.923			0.92%
Ag 328.068†	-33.5	-0.2464 µg/L	0.23900	-0.2464 ppb	0.23900	96.99%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-1.5	-1.0440 µg/L	6.12354	-1.0440 ppb	6.12354	586.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.9	3.4565 µg/L	0.58720	3.4565 ppb	0.58720	16.99%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	8.7	0.3489 µg/L	0.46764	0.3489 ppb	0.46764	134.04%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.6	0.2310 µg/L	0.01805	0.2310 ppb	0.01805	7.81%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	269.5	0.1599 µg/L	0.02562	0.1599 ppb	0.02562	16.03%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-8.5	-7.2261 µg/L	0.95208	-7.2261 ppb	0.95208	13.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	2.5	0.0615 µg/L	0.06046	0.0615 ppb	0.06046	98.36%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	6.1	0.2751 µg/L	0.18114	0.2751 ppb	0.18114	65.85%

Cr	267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
		-0.6	-0.0114 µg/L	0.14502	-0.0114 ppb	0.14502 >999.9%
Cu	324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
		77.3	0.5058 µg/L	0.38426	0.5058 ppb	0.38426 75.97%
Fe	238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
		1.4	11.049 µg/L	4.2612	11.049 ppb	4.2612 38.57%
K	766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
		29.7	19.384 µg/L	6.6186	19.384 ppb	6.6186 34.15%
Mg	279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
		-0.7	-6.3222 µg/L	19.82205	-6.3222 ppb	19.82205 313.53%
Mn	257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
		43.3	0.1372 µg/L	0.02261	0.1372 ppb	0.02261 16.47%
Mo	202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
		5.5	0.5427 µg/L	0.23045	0.5427 ppb	0.23045 42.46%
Na	589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
		101.2	31.091 µg/L	0.3066	31.091 ppb	0.3066 0.99%
Ni	231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
		0.3	0.0133 µg/L	0.20747	0.0133 ppb	0.20747 >999.9%
P	214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
		-1.7	-3.4277 µg/L	11.61243	-3.4277 ppb	11.61243 338.78%
Pb	220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
		3.9	0.9361 µg/L	1.36196	0.9361 ppb	1.36196 145.50%
S	181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
		-3.0	-12.440 µg/L	5.9620	-12.440 ppb	5.9620 47.92%
Sb	206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
		0.4	0.3803 µg/L	3.40201	0.3803 ppb	3.40201 894.45%
Se	196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
		-4.8	-6.7556 µg/L	2.66893	-6.7556 ppb	2.66893 39.51%
SiO2†		QC value within limits for Se 196.026	Recovery = Not calculated			
		96.5	19.057 µg/L	5.9811	19.057 ppb	5.9811 31.38%
Si	251.611†	QC value within limits for SiO2	Recovery = Not calculated			
		100.6	7.6446 µg/L	0.69104	7.6446 ppb	0.69104 9.04%
Sn	189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
		4.8	2.0028 µg/L	1.17429	2.0028 ppb	1.17429 58.63%
Sr	421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
		15.0	0.1380 µg/L	0.36157	0.1380 ppb	0.36157 262.05%
Ti	334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
		81.7	0.1811 µg/L	0.03671	0.1811 ppb	0.03671 20.27%
Tl	190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
		0.2	0.2179 µg/L	3.75923	0.2179 ppb	3.75923 >999.9%
U	409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
		91.7	7.6184 µg/L	3.23526	7.6184 ppb	3.23526 42.47%
V	292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
		18.6	0.1950 µg/L	0.12739	0.1950 ppb	0.12739 65.33%
Zn	213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
		8.5	0.1990 µg/L	0.22924	0.1990 ppb	0.22924 115.20%
		QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.



Sequence No.: 7

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/19/2010 17:52:13

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56387.7	56387.7	99.8 %		17:52:51
1	Al 396.153Radial†	7516.2	7523.2	5222.3 µg/L	5222.3 ppb	17:52:51
1	Ca 317.933Radial†	6203.6	6004.2	5128.7 µg/L	5128.7 ppb	17:53:12
1	Fe 238.204 Radial†	678.6	663.3	5242.5 µg/L	5242.5 ppb	17:53:12
1	K 766.490 Radial†	8065.5	7916.0	5170.1 µg/L	5170.1 ppb	17:52:51
1	Mg 279.077 IEC†	612.7	601.1	5376.4 µg/L	5376.4 ppb	17:53:12
1	Na 589.592 Radial†	34827.6	34422.1	10573 µg/L	10573 ppb	17:52:51
1	Sr 421.552†	55284.5	55361.6	510.72 µg/L	510.72 ppb	17:52:51
1	Sc 361.383	1961302.2	1961302.2	99.907 %		17:54:15
1	Y 371.029	1346537.9	1346537.9	99.540 %		17:54:15
1	Ag 328.068†	69774.1	70240.4	524.12 µg/L	524.12 ppb	17:54:21
1	As 188.979†	301.3	302.0	540.22 µg/L	540.22 ppb	17:54:41
1	B 249.677†	13080.8	12708.8	516.10 µg/L	516.10 ppb	17:54:21
1	Ba 233.527†	21956.6	21994.0	528.97 µg/L	528.97 ppb	17:54:21
1	Be 313.107†	883536.0	887210.5	526.36 µg/L	526.36 ppb	17:54:15
1	Cd 226.502†	21042.7	21203.9	528.78 µg/L	528.78 ppb	17:54:21
1	Co 228.616†	11741.3	11750.3	531.54 µg/L	531.54 ppb	17:54:21
1	Cr 267.716†	26482.6	26557.5	533.75 µg/L	533.75 ppb	17:54:21
1	Cu 324.752†	83088.9	80622.2	526.99 µg/L	526.99 ppb	17:54:21
1	Mn 257.610†	170434.3	170848.3	535.50 µg/L	535.50 ppb	17:54:15
1	Mo 202.031†	5552.2	5562.7	544.93 µg/L	544.93 ppb	17:54:41
1	Ni 231.604†	10987.8	10685.6	532.11 µg/L	532.11 ppb	17:54:21
1	P 214.914†	1368.8	1354.8	2632.0 µg/L	2632.0 ppb	17:54:41
1	Pb 220.353†	2310.1	2221.3	540.17 µg/L	540.17 ppb	17:54:41
1	S 181.975 Axial†	278.0	259.3	1075.2 µg/L	1075.2 ppb	17:54:41
1	Sb 206.836†	616.4	594.4	548.12 µg/L	548.12 ppb	17:54:41
1	Se 196.026†	407.1	388.1	553.19 µg/L	553.19 ppb	17:54:41
1	SiO2†	29956.0	28592.2	5643.7 µg/L	5643.7 ppb	17:54:21
1	Si 251.611†	34932.9	34654.6	2634.5 µg/L	2634.5 ppb	17:54:21
1	Sn 189.927†	1295.2	1296.1	546.62 µg/L	546.62 ppb	17:54:41
1	Ti 334.940†	237959.8	238005.3	526.18 µg/L	526.18 ppb	17:54:15
1	Tl 190.801†	387.6	410.3	539.25 µg/L	539.25 ppb	17:54:41
1	U 409.014†	6411.5	6494.5	538.55 µg/L	538.55 ppb	17:54:21
1	V 292.402†	54050.9	54145.8	534.27 µg/L	534.27 ppb	17:54:21
1	Zn 213.857†	23288.3	22775.5	530.59 µg/L	530.59 ppb	17:54:21
2	Sc RADIAL	56513.7	56513.7	100 %		17:53:17
2	Al 396.153Radial†	7511.3	7501.5	5207.6 µg/L	5207.6 ppb	17:53:17
2	Ca 317.933Radial†	6229.5	6016.2	5139.0 µg/L	5139.0 ppb	17:53:38
2	Fe 238.204 Radial†	684.9	668.1	5280.5 µg/L	5280.5 ppb	17:53:38
2	K 766.490 Radial†	8100.3	7932.7	5181.0 µg/L	5181.0 ppb	17:53:17
2	Mg 279.077 IEC†	601.5	588.5	5263.5 µg/L	5263.5 ppb	17:53:38
2	Na 589.592 Radial†	34828.0	34344.7	10549 µg/L	10549 ppb	17:53:17
2	Sr 421.552†	55539.3	55492.7	511.93 µg/L	511.93 ppb	17:53:17
2	Sc 361.383	1968482.8	1968482.8	100.27 %		17:54:48
2	Y 371.029	1351706.6	1351706.6	99.922 %		17:54:48
2	Ag 328.068†	69757.2	69968.7	522.10 µg/L	522.10 ppb	17:54:54
2	As 188.979†	290.5	290.2	519.13 µg/L	519.13 ppb	17:55:15
2	B 249.677†	13075.3	12655.5	513.91 µg/L	513.91 ppb	17:54:54
2	Ba 233.527†	21957.1	21914.4	527.05 µg/L	527.05 ppb	17:54:54
2	Be 313.107†	886040.3	886482.1	525.93 µg/L	525.93 ppb	17:54:48
2	Cd 226.502†	21056.7	21141.0	527.21 µg/L	527.21 ppb	17:54:54
2	Co 228.616†	11735.1	11701.2	529.30 µg/L	529.30 ppb	17:54:54
2	Cr 267.716†	26499.8	26477.9	532.15 µg/L	532.15 ppb	17:54:54
2	Cu 324.752†	83008.4	80238.5	524.49 µg/L	524.49 ppb	17:54:54
2	Mn 257.610†	171057.7	170847.6	535.50 µg/L	535.50 ppb	17:54:48
2	Mo 202.031†	5398.9	5389.5	527.98 µg/L	527.98 ppb	17:55:15
2	Ni 231.604†	11020.6	10678.2	531.74 µg/L	531.74 ppb	17:54:54
2	P 214.914†	1347.0	1328.0	2579.1 µg/L	2579.1 ppb	17:55:15
2	Pb 220.353†	2257.9	2160.8	525.43 µg/L	525.43 ppb	17:55:15

2	S 181.975 Axial†	275.1	255.4	1059.1 µg/L	1059.1 ppb	17:55:15
2	Sb 206.836†	599.1	574.9	529.97 µg/L	529.97 ppb	17:55:15
2	Se 196.026†	397.7	377.3	538.13 µg/L	538.13 ppb	17:55:15
2	SiO2†	29922.8	28449.7	5615.6 µg/L	5615.6 ppb	17:54:54
2	Si 251.611†	35029.2	34623.1	2632.1 µg/L	2632.1 ppb	17:54:54
2	Sn 189.927†	1263.5	1259.7	531.25 µg/L	531.25 ppb	17:55:15
2	Ti 334.940†	238598.7	237773.6	525.67 µg/L	525.67 ppb	17:54:48
2	Tl 190.801†	380.1	401.4	527.72 µg/L	527.72 ppb	17:55:15
2	U 409.014†	6311.3	6371.2	528.30 µg/L	528.30 ppb	17:54:54
2	V 292.402†	54031.0	53928.5	532.01 µg/L	532.01 ppb	17:54:54
2	Zn 213.857†	23199.9	22602.3	526.54 µg/L	526.54 ppb	17:54:54
3	Sc RADIAL	56302.2	56302.2	99.7 %		17:53:43
3	Al 396.153Radial†	7458.4	7476.7	5192.5 µg/L	5192.5 ppb	17:53:43
3	Ca 317.933Radial†	6210.0	6020.1	5142.2 µg/L	5142.2 ppb	17:54:03
3	Fe 238.204 Radial†	676.1	661.8	5229.6 µg/L	5229.6 ppb	17:54:03
3	K 766.490 Radial†	8076.1	7938.9	5185.0 µg/L	5185.0 ppb	17:53:43
3	Mg 279.077 IEC†	611.6	600.9	5372.7 µg/L	5372.7 ppb	17:54:03
3	Na 589.592 Radial†	34581.8	34228.4	10513 µg/L	10513 ppb	17:53:43
3	Sr 421.552†	55197.9	55358.8	510.69 µg/L	510.69 ppb	17:53:43
3	Sc 361.383	1973873.7	1973873.7	100.55 %		17:55:22
3	Y 371.029	1355653.4	1355653.4	100.21 %		17:55:22
3	Ag 328.068†	63217.1	63274.3	471.97 µg/L	471.97 ppb	17:55:27
3	As 188.979†	239.4	238.6	426.79 µg/L	426.79 ppb	17:55:48
3	B 249.677†	11772.4	11324.2	459.52 µg/L	459.52 ppb	17:55:27
3	Ba 233.527†	19082.8	18995.9	456.84 µg/L	456.84 ppb	17:55:27
3	Be 313.107†	789189.1	787745.2	467.35 µg/L	467.35 ppb	17:55:22
3	Cd 226.502†	18227.9	18270.3	455.54 µg/L	455.54 ppb	17:55:27
3	Co 228.616†	10065.9	10009.1	452.70 µg/L	452.70 ppb	17:55:27
3	Cr 267.716†	21831.4	21762.8	437.39 µg/L	437.39 ppb	17:55:27
3	Cu 324.752†	71769.6	68834.9	450.04 µg/L	450.04 ppb	17:55:27
3	Mn 257.610†	152925.4	152348.2	477.56 µg/L	477.56 ppb	17:55:22
3	Mo 202.031†	4301.6	4283.5	419.66 µg/L	419.66 ppb	17:55:48
3	Ni 231.604†	9432.0	9068.3	451.58 µg/L	451.58 ppb	17:55:27
3	P 214.914†	1090.2	1068.9	2072.2 µg/L	2072.2 ppb	17:55:48
3	Pb 220.353†	1884.4	1783.2	433.56 µg/L	433.56 ppb	17:55:48
3	S 181.975 Axial†	236.4	216.2	896.48 µg/L	896.48 ppb	17:55:48
3	Sb 206.836†	488.0	462.9	426.39 µg/L	426.39 ppb	17:55:48
3	Se 196.026†	334.6	313.5	448.33 µg/L	448.33 ppb	17:55:48
3	SiO2†	26642.0	25105.3	4955.5 µg/L	4955.5 ppb	17:55:27
3	Si 251.611†	30980.1	30500.6	2318.7 µg/L	2318.7 ppb	17:55:27
3	Sn 189.927†	986.2	980.5	413.54 µg/L	413.54 ppb	17:55:48
3	Ti 334.940†	210724.4	209401.3	462.90 µg/L	462.90 ppb	17:55:22
3	Tl 190.801†	331.8	352.3	463.31 µg/L	463.31 ppb	17:55:48
3	U 409.014†	5301.6	5349.8	443.44 µg/L	443.44 ppb	17:55:27
3	V 292.402†	45830.4	45625.5	449.95 µg/L	449.95 ppb	17:55:27
3	Zn 213.857†	20052.4	19408.7	452.08 µg/L	452.08 ppb	17:55:27

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1967886.2	100.24 %	0.321			0.32%
Sc RADIAL	56401.2	99.8 %	0.19			0.19%
Y 371.029	1351299.3	99.892 %	0.3379			0.34%
Ag 328.068†	67827.8	506.07 µg/L	29.542	506.07 ppb	29.542	5.84%
QC value within limits for Ag 328.068 Recovery = 101.21%						
Al 396.153Radial†	7500.4	5207.5 µg/L	14.90	5207.5 ppb	14.90	0.29%
QC value within limits for Al 396.153Radial Recovery = 104.15%						
As 188.979†	276.9	495.38 µg/L	60.328	495.38 ppb	60.328	12.18%
QC value within limits for As 188.979 Recovery = 99.08%						
B 249.677†	12229.5	496.51 µg/L	32.053	496.51 ppb	32.053	6.46%
QC value within limits for B 249.677 Recovery = 99.30%						
Ba 233.527†	20968.1	504.29 µg/L	41.100	504.29 ppb	41.100	8.15%
QC value within limits for Ba 233.527 Recovery = 100.86%						
Be 313.107†	853812.6	506.55 µg/L	33.945	506.55 ppb	33.945	6.70%
QC value within limits for Be 313.107 Recovery = 101.31%						
Ca 317.933Radial†	6013.5	5136.6 µg/L	7.07	5136.6 ppb	7.07	0.14%
QC value within limits for Ca 317.933Radial Recovery = 102.73%						
Cd 226.502†	20205.1	503.85 µg/L	41.841	503.85 ppb	41.841	8.30%
QC value within limits for Cd 226.502 Recovery = 100.77%						
Co 228.616†	11153.5	504.51 µg/L	44.882	504.51 ppb	44.882	8.90%

QC value within limits for Co 228.616 Recovery = 100.90%							
Cr 267.716†	24932.7	501.10 µg/L	55.174	501.10 ppb	55.174	11.01%	
QC value within limits for Cr 267.716 Recovery = 100.22%							
Cu 324.752†	76565.2	500.51 µg/L	43.720	500.51 ppb	43.720	8.74%	
QC value within limits for Cu 324.752 Recovery = 100.10%							
Fe 238.204 Radial†	664.4	5250.8 µg/L	26.46	5250.8 ppb	26.46	0.50%	
QC value within limits for Fe 238.204 Radial Recovery = 105.02%							
K 766.490 Radial†	7929.2	5178.7 µg/L	7.74	5178.7 ppb	7.74	0.15%	
QC value within limits for K 766.490 Radial Recovery = 103.57%							
Mg 279.077 IEC†	596.8	5337.6 µg/L	64.15	5337.6 ppb	64.15	1.20%	
QC value within limits for Mg 279.077 IEC Recovery = 106.75%							
Mn 257.610†	164681.4	516.19 µg/L	33.451	516.19 ppb	33.451	6.48%	
QC value within limits for Mn 257.610 Recovery = 103.24%							
Mo 202.031†	5078.6	497.52 µg/L	67.959	497.52 ppb	67.959	13.66%	
QC value within limits for Mo 202.031 Recovery = 99.50%							
Na 589.592 Radial†	34331.7	10545 µg/L	29.9	10545 ppb	29.9	0.28%	
QC value within limits for Na 589.592 Radial Recovery = 105.45%							
Ni 231.604†	10144.1	505.14 µg/L	46.388	505.14 ppb	46.388	9.18%	
QC value within limits for Ni 231.604 Recovery = 101.03%							
P 214.914†	1250.6	2427.8 µg/L	309.09	2427.8 ppb	309.09	12.73%	
QC value within limits for P 214.914 Recovery = 97.11%							
Pb 220.353†	2055.1	499.72 µg/L	57.768	499.72 ppb	57.768	11.56%	
QC value within limits for Pb 220.353 Recovery = 99.94%							
S 181.975 Axial†	243.6	1010.2 µg/L	98.85	1010.2 ppb	98.85	9.79%	
QC value within limits for S 181.975 Axial Recovery = 101.02%							
Sb 206.836†	544.1	501.49 µg/L	65.671	501.49 ppb	65.671	13.10%	
QC value within limits for Sb 206.836 Recovery = 100.30%							
Se 196.026†	359.6	513.22 µg/L	56.697	513.22 ppb	56.697	11.05%	
QC value within limits for Se 196.026 Recovery = 102.64%							
SiO2†	27382.4	5404.9 µg/L	389.50	5404.9 ppb	389.50	7.21%	
QC value within limits for SiO2 Recovery = 101.07%							
Si 251.611†	33259.5	2528.4 µg/L	181.64	2528.4 ppb	181.64	7.18%	
QC value within limits for Si 251.611 Recovery = 101.14%							
Sn 189.927†	1178.7	497.14 µg/L	72.805	497.14 ppb	72.805	14.64%	
QC value within limits for Sn 189.927 Recovery = 99.43%							
Sr 421.552†	55404.3	511.11 µg/L	0.706	511.11 ppb	0.706	0.14%	
QC value within limits for Sr 421.552 Recovery = 102.22%							
Ti 334.940†	228393.4	504.92 µg/L	36.389	504.92 ppb	36.389	7.21%	
QC value within limits for Ti 334.940 Recovery = 100.98%							
Tl 190.801†	388.0	510.09 µg/L	40.923	510.09 ppb	40.923	8.02%	
QC value within limits for Tl 190.801 Recovery = 102.02%							
U 409.014†	6071.8	503.43 µg/L	52.204	503.43 ppb	52.204	10.37%	
QC value within limits for U 409.014 Recovery = 100.69%							
V 292.402†	51233.3	505.41 µg/L	48.044	505.41 ppb	48.044	9.51%	
QC value within limits for V 292.402 Recovery = 101.08%							
Zn 213.857†	21595.5	503.07 µg/L	44.204	503.07 ppb	44.204	8.79%	
QC value within limits for Zn 213.857 Recovery = 100.61%							

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/19/2010 17:55:58  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55016.4	55016.4	97.4 %		17:56:30
1	Al 396.153Radial†	-25.6	-33.6	-23.423 µg/L	-23.423 ppb	17:56:30
1	Ca 317.933Radial†	188.9	-17.3	-14.738 µg/L	-14.738 ppb	17:56:51
1	Fe 238.204 Radial†	16.8	0.7	5.5284 µg/L	5.5284 ppb	17:56:51
1	K 766.490 Radial†	203.2	43.7	28.526 µg/L	28.526 ppb	17:56:30
1	Mg 279.077 IEC†	6.2	-6.4	-57.504 µg/L	-57.504 ppb	17:56:51
1	Na 589.592 Radial†	507.1	48.5	14.906 µg/L	14.906 ppb	17:56:30
1	Sr 421.552†	39.0	11.2	0.1037 µg/L	0.1037 ppb	17:56:30
1	Sc 361.383	1965901.2	1965901.2	100.14 %		17:57:53
1	Y 371.029	1354342.9	1354342.9	100.12 %		17:57:53
1	Ag 328.068†	-375.0	27.2	0.2015 µg/L	0.2015 ppb	17:57:58
1	As 188.979†	2.9	3.3	5.9435 µg/L	5.9435 ppb	17:58:19
1	B 249.677†	389.1	4.4	0.1765 µg/L	0.1765 ppb	17:58:19
1	Ba 233.527†	-21.5	-4.4	-0.1059 µg/L	-0.1059 ppb	17:58:19
1	Be 313.107†	-2713.7	145.8	0.0865 µg/L	0.0865 ppb	17:57:58
1	Cd 226.502†	-132.8	9.1	0.2255 µg/L	0.2255 ppb	17:58:19
1	Co 228.616†	-6.2	-8.1	-0.3659 µg/L	-0.3659 ppb	17:58:19
1	Cr 267.716†	-50.1	0.4	0.0078 µg/L	0.0078 ppb	17:57:58
1	Cu 324.752†	2544.7	-2.7	-0.0168 µg/L	-0.0168 ppb	17:57:58
1	Mn 257.610†	-245.9	10.5	0.0359 µg/L	0.0359 ppb	17:58:19
1	Mo 202.031†	3.8	9.1	0.8915 µg/L	0.8915 ppb	17:58:19
1	Ni 231.604†	300.7	-12.0	-0.5990 µg/L	-0.5990 ppb	17:58:19
1	P 214.914†	17.4	2.0	4.0305 µg/L	4.0305 ppb	17:58:19
1	Pb 220.353†	97.4	6.3	1.5269 µg/L	1.5269 ppb	17:58:19
1	S 181.975 Axial†	17.7	-1.2	-5.1360 µg/L	-5.1360 ppb	17:58:19
1	Sb 206.836†	24.8	2.2	2.0583 µg/L	2.0583 ppb	17:58:19
1	Se 196.026†	12.5	-6.8	-9.5059 µg/L	-9.5059 ppb	17:58:19
1	SiO2†	1426.2	32.7	6.4463 µg/L	6.4463 ppb	17:57:58
1	Si 251.611†	326.4	15.3	1.1636 µg/L	1.1636 ppb	17:58:19
1	Sn 189.927†	4.0	3.6	1.5081 µg/L	1.5081 ppb	17:58:19
1	Ti 334.940†	201.4	26.1	0.0620 µg/L	0.0620 ppb	17:57:58
1	Tl 190.801†	-21.5	0.9	1.1647 µg/L	1.1647 ppb	17:58:19
1	U 409.014†	-51.8	25.4	2.1068 µg/L	2.1068 ppb	17:57:58
1	V 292.402†	-46.0	-1.1	-0.0014 µg/L	-0.0014 ppb	17:57:58
1	Zn 213.857†	533.4	-1.7	-0.0344 µg/L	-0.0344 ppb	17:58:19
2	Sc RADIAL	55682.3	55682.3	98.6 %		17:56:56
2	Al 396.153Radial†	-28.9	-36.6	-25.497 µg/L	-25.497 ppb	17:56:56
2	Ca 317.933Radial†	190.4	-18.1	-15.487 µg/L	-15.487 ppb	17:57:17
2	Fe 238.204 Radial†	16.8	0.5	4.1171 µg/L	4.1171 ppb	17:57:17
2	K 766.490 Radial†	223.9	62.2	40.619 µg/L	40.619 ppb	17:56:56
2	Mg 279.077 IEC†	9.9	-2.8	-25.072 µg/L	-25.072 ppb	17:57:17
2	Na 589.592 Radial†	519.3	54.7	16.798 µg/L	16.798 ppb	17:56:56
2	Sr 421.552†	32.7	4.3	0.0401 µg/L	0.0401 ppb	17:56:56
2	Sc 361.383	1957019.5	1957019.5	99.689 %		17:58:25
2	Y 371.029	1350334.7	1350334.7	99.821 %		17:58:25
2	Ag 328.068†	-377.0	23.5	0.1757 µg/L	0.1757 ppb	17:58:30
2	As 188.979†	-0.8	-0.3	-0.5788 µg/L	-0.5788 ppb	17:58:51
2	B 249.677†	388.0	5.1	0.2060 µg/L	0.2060 ppb	17:58:51
2	Ba 233.527†	-16.1	0.9	0.0215 µg/L	0.0215 ppb	17:58:51
2	Be 313.107†	-2677.7	169.6	0.1006 µg/L	0.1006 ppb	17:58:30
2	Cd 226.502†	-142.7	-1.4	-0.0367 µg/L	-0.0367 ppb	17:58:51
2	Co 228.616†	7.4	5.5	0.2501 µg/L	0.2501 ppb	17:58:51
2	Cr 267.716†	-33.3	17.0	0.3420 µg/L	0.3420 ppb	17:58:30
2	Cu 324.752†	2564.5	28.8	0.1884 µg/L	0.1884 ppb	17:58:30
2	Mn 257.610†	-244.8	10.4	0.0341 µg/L	0.0341 ppb	17:58:51
2	Mo 202.031†	-1.9	3.5	0.3412 µg/L	0.3412 ppb	17:58:51
2	Ni 231.604†	305.0	-6.4	-0.3187 µg/L	-0.3187 ppb	17:58:51
2	P 214.914†	15.9	0.6	1.2381 µg/L	1.2381 ppb	17:58:51
2	Pb 220.353†	85.8	-4.9	-1.1822 µg/L	-1.1822 ppb	17:58:51

2	S 181.975 Axial†	16.3	-2.6	-10.626 µg/L	-10.626 ppb	17:58:51
2	Sb 206.836†	25.7	3.2	2.9825 µg/L	2.9825 ppb	17:58:51
2	Se 196.026†	18.4	-0.8	-1.1281 µg/L	-1.1281 ppb	17:58:51
2	SiO2†	1461.8	74.8	14.763 µg/L	14.763 ppb	17:58:30
2	Si 251.611†	344.9	35.3	2.6849 µg/L	2.6849 ppb	17:58:51
2	Sn 189.927†	-1.0	-1.4	-0.5943 µg/L	-0.5943 ppb	17:58:51
2	Ti 334.940†	216.4	42.0	0.0947 µg/L	0.0947 ppb	17:58:30
2	Tl 190.801†	-19.8	2.5	3.2612 µg/L	3.2612 ppb	17:58:51
2	U 409.014†	-50.4	26.6	2.2066 µg/L	2.2066 ppb	17:58:30
2	V 292.402†	-18.0	26.7	0.2662 µg/L	0.2662 ppb	17:58:30
2	Zn 213.857†	535.3	2.5	0.0614 µg/L	0.0614 ppb	17:58:51
3	Sc RADIAL	55053.2	55053.2	97.4 %		17:57:22
3	Al 396.153Radial†	-40.3	-48.7	-33.898 µg/L	-33.898 ppb	17:57:22
3	Ca 317.933Radial†	188.9	-17.4	-14.892 µg/L	-14.892 ppb	17:57:42
3	Fe 238.204 Radial†	16.1	-0.0	-0.3068 µg/L	-0.3068 ppb	17:57:42
3	K 766.490 Radial†	212.7	53.3	34.793 µg/L	34.793 ppb	17:57:22
3	Mg 279.077 IEC†	19.0	6.7	59.990 µg/L	59.990 ppb	17:57:42
3	Na 589.592 Radial†	541.5	83.5	25.652 µg/L	25.652 ppb	17:57:22
3	Sr 421.552†	50.1	22.6	0.2082 µg/L	0.2082 ppb	17:57:22
3	Sc 361.383	1965248.8	1965248.8	100.11 %		17:58:57
3	Y 371.029	1354189.1	1354189.1	100.11 %		17:58:57
3	Ag 328.068†	-450.0	-47.9	-0.3524 µg/L	-0.3524 ppb	17:59:03
3	As 188.979†	0.1	0.6	1.0726 µg/L	1.0726 ppb	17:59:23
3	B 249.677†	379.0	-5.5	-0.2247 µg/L	-0.2247 ppb	17:59:23
3	Ba 233.527†	-9.6	7.5	0.1800 µg/L	0.1800 ppb	17:59:23
3	Be 313.107†	-2642.2	216.4	0.1284 µg/L	0.1284 ppb	17:59:03
3	Cd 226.502†	-137.1	4.7	0.1164 µg/L	0.1164 ppb	17:59:23
3	Co 228.616†	5.7	3.7	0.1693 µg/L	0.1693 ppb	17:59:23
3	Cr 267.716†	-63.8	-13.4	-0.2679 µg/L	-0.2679 ppb	17:59:03
3	Cu 324.752†	2541.3	-5.2	-0.0342 µg/L	-0.0342 ppb	17:59:03
3	Mn 257.610†	-242.2	14.1	0.0418 µg/L	0.0418 ppb	17:59:23
3	Mo 202.031†	-0.6	4.8	0.4652 µg/L	0.4652 ppb	17:59:23
3	Ni 231.604†	301.2	-11.4	-0.5704 µg/L	-0.5704 ppb	17:59:23
3	P 214.914†	21.9	6.6	13.019 µg/L	13.019 ppb	17:59:23
3	Pb 220.353†	81.2	-9.9	-2.4060 µg/L	-2.4060 ppb	17:59:23
3	S 181.975 Axial†	14.0	-4.9	-20.443 µg/L	-20.443 ppb	17:59:23
3	Sb 206.836†	27.7	5.2	4.7514 µg/L	4.7514 ppb	17:59:23
3	Se 196.026†	17.1	-2.2	-3.1763 µg/L	-3.1763 ppb	17:59:23
3	SiO2†	1412.3	19.2	3.7961 µg/L	3.7961 ppb	17:59:03
3	Si 251.611†	335.9	24.9	1.8933 µg/L	1.8933 ppb	17:59:23
3	Sn 189.927†	3.9	3.5	1.4733 µg/L	1.4733 ppb	17:59:23
3	Ti 334.940†	206.9	31.6	0.0650 µg/L	0.0650 ppb	17:59:03
3	Tl 190.801†	-23.3	-0.9	-1.1798 µg/L	-1.1798 ppb	17:59:23
3	U 409.014†	2.6	79.6	6.6183 µg/L	6.6183 ppb	17:59:03
3	V 292.402†	-4.6	40.2	0.4016 µg/L	0.4016 ppb	17:59:03
3	Zn 213.857†	533.9	-1.1	-0.0271 µg/L	-0.0271 ppb	17:59:23

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1962723.2	99.980 %	0.2522			0.25%
Sc RADIAL	55250.6	97.8 %	0.66			0.68%
Y 371.029	1352955.6	100.01 %	0.168			0.17%
Ag 328.068†	0.9	0.0083 µg/L	0.31265	0.0083 ppb	0.31265	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-39.7	-27.606 µg/L	5.5466	-27.606 ppb	5.5466	20.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.2	2.1458 µg/L	3.39103	2.1458 ppb	3.39103	158.03%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	1.3	0.0526 µg/L	0.24059	0.0526 ppb	0.24059	457.43%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.3	0.0318 µg/L	0.14326	0.0318 ppb	0.14326	449.79%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	177.3	0.1052 µg/L	0.02132	0.1052 ppb	0.02132	20.27%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-17.6	-15.039 µg/L	0.3955	-15.039 ppb	0.3955	2.63%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	4.1	0.1017 µg/L	0.13173	0.1017 ppb	0.13173	129.53%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.4	0.0179 µg/L	0.33479	0.0179 ppb	0.33479	>999.9%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
	1.4	0.0273 µg/L	0.30543	0.0273 ppb	0.30543 >999.9%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
	7.0	0.0458 µg/L	0.12379	0.0458 ppb	0.12379 270.27%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
	0.4	3.1129 µg/L	3.04443	3.1129 ppb	3.04443 97.80%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
	53.0	34.646 µg/L	6.0478	34.646 ppb	6.0478 17.46%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
	-0.8	-7.5284 µg/L	60.67961	-7.5284 ppb	60.67961 806.01%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
	11.7	0.0373 µg/L	0.00401	0.0373 ppb	0.00401 10.76%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
	5.8	0.5659 µg/L	0.28866	0.5659 ppb	0.28866 51.01%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
	62.2	19.119 µg/L	5.7369	19.119 ppb	5.7369 30.01%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
	-10.0	-0.4960 µg/L	0.15424	-0.4960 ppb	0.15424 31.09%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
	3.1	6.0957 µg/L	6.15582	6.0957 ppb	6.15582 100.99%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
	-2.8	-0.6871 µg/L	2.01265	-0.6871 ppb	2.01265 292.92%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
	-2.9	-12.068 µg/L	7.7546	-12.068 ppb	7.7546 64.26%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
	3.5	3.2641 µg/L	1.36846	3.2641 ppb	1.36846 41.92%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
	-3.3	-4.6035 µg/L	4.36743	-4.6035 ppb	4.36743 94.87%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated			
	42.2	8.3350 µg/L	5.72201	8.3350 ppb	5.72201 68.65%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated			
	25.2	1.9139 µg/L	0.76087	1.9139 ppb	0.76087 39.75%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
	1.9	0.7957 µg/L	1.20387	0.7957 ppb	1.20387 151.30%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
	12.7	0.1173 µg/L	0.08487	0.1173 ppb	0.08487 72.32%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
	33.2	0.0739 µg/L	0.01807	0.0739 ppb	0.01807 24.45%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
	0.8	1.0820 µg/L	2.22165	1.0820 ppb	2.22165 205.32%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
	43.9	3.6439 µg/L	2.57643	3.6439 ppb	2.57643 70.71%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
	21.9	0.2221 µg/L	0.20505	0.2221 ppb	0.20505 92.31%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
	-0.1	0.0000 µg/L	0.05335	0.0000 ppb	0.05335 >999.9%
	QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: 1202046765|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 307

Date Collected: 2/19/2010 17:59:32

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202046765|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54021.6	54021.6	95.6 %		18:00:10
1	Al 396.153Radial†	26.6	20.4	14.204 µg/L	14.204 ppb	18:00:10
1	Ca 317.933Radial†	237.3	36.9	31.555 µg/L	31.555 ppb	18:00:31
1	Fe 238.204 Radial†	26.1	10.8	84.882 µg/L	84.882 ppb	18:00:31
1	K 766.490 Radial†	166.5	9.1	5.9460 µg/L	5.9460 ppb	18:00:10
1	Mg 279.077 IEC†	14.1	1.9	16.797 µg/L	16.797 ppb	18:00:31
1	Na 589.592 Radial†	591.0	145.8	44.792 µg/L	44.792 ppb	18:00:10
1	Sr 421.552†	72.8	47.4	0.4370 µg/L	0.4370 ppb	18:00:10
1	Sc 361.383	1924829.7	1924829.7	98.050 %		18:01:32
1	Y 371.029	1325548.9	1325548.9	97.989 %		18:01:32
1	Ag 328.068†	-375.6	18.5	0.1402 µg/L	0.1402 ppb	18:01:38
1	As 188.979†	-0.9	-0.5	-0.8505 µg/L	-0.8505 ppb	18:01:59
1	B 249.677†	387.9	11.5	0.4237 µg/L	0.4237 ppb	18:01:59
1	Ba 233.527†	50.3	68.4	1.6406 µg/L	1.6406 ppb	18:01:59
1	Be 313.107†	-2730.6	70.8	0.0416 µg/L	0.0416 ppb	18:01:38
1	Cd 226.502†	-135.5	3.5	0.0774 µg/L	0.0774 ppb	18:01:59
1	Co 228.616†	13.1	11.4	0.5139 µg/L	0.5139 ppb	18:01:59
1	Cr 267.716†	-8.8	41.4	0.8318 µg/L	0.8318 ppb	18:01:38
1	Cu 324.752†	2707.6	217.7	1.4328 µg/L	1.4328 ppb	18:01:38
1	Mn 257.610†	517.5	783.8	2.4650 µg/L	2.4650 ppb	18:01:59
1	Mo 202.031†	-2.4	2.9	0.2919 µg/L	0.2919 ppb	18:01:59
1	Ni 231.604†	317.6	11.6	0.5772 µg/L	0.5772 ppb	18:01:59
1	P 214.914†	16.3	1.3	2.7585 µg/L	2.7585 ppb	18:01:59
1	Pb 220.353†	92.7	3.6	0.8572 µg/L	0.8572 ppb	18:01:59
1	S 181.975 Axial†	24.5	6.1	25.117 µg/L	25.117 ppb	18:01:59
1	Sb 206.836†	26.2	4.3	3.8986 µg/L	3.8986 ppb	18:01:59
1	Se 196.026†	10.1	-9.1	-12.521 µg/L	-12.521 ppb	18:01:59
1	SiO2†	1782.4	426.3	84.137 µg/L	84.137 ppb	18:01:38
1	Si 251.611†	775.0	479.7	36.471 µg/L	36.471 ppb	18:01:59
1	Sn 189.927†	54.5	55.2	23.262 µg/L	23.262 ppb	18:01:59
1	Ti 334.940†	644.1	481.9	1.0652 µg/L	1.0652 ppb	18:01:38
1	Tl 190.801†	-25.5	-3.7	-4.7341 µg/L	-4.7341 ppb	18:01:59
1	U 409.014†	1.8	78.9	6.5440 µg/L	6.5440 ppb	18:01:38
1	V 292.402†	-77.6	-34.4	-0.3144 µg/L	-0.3144 ppb	18:01:38
1	Zn 213.857†	691.0	170.3	3.9868 µg/L	3.9868 ppb	18:01:59
2	Sc RADIAL	54735.8	54735.8	96.9 %		18:00:36
2	Al 396.153Radial†	2.1	-5.2	-3.5992 µg/L	-3.5992 ppb	18:00:36
2	Ca 317.933Radial†	234.8	31.0	26.509 µg/L	26.509 ppb	18:00:57
2	Fe 238.204 Radial†	25.5	9.7	76.571 µg/L	76.571 ppb	18:00:57
2	K 766.490 Radial†	258.5	101.8	66.474 µg/L	66.474 ppb	18:00:36
2	Mg 279.077 IEC†	15.5	3.2	28.386 µg/L	28.386 ppb	18:00:57
2	Na 589.592 Radial†	613.2	160.7	49.369 µg/L	49.369 ppb	18:00:36
2	Sr 421.552†	49.6	22.3	0.2061 µg/L	0.2061 ppb	18:00:36
2	Sc 361.383	1942879.6	1942879.6	98.969 %		18:02:05
2	Y 371.029	1337587.5	1337587.5	98.879 %		18:02:05
2	Ag 328.068†	-337.7	60.4	0.4544 µg/L	0.4544 ppb	18:02:10
2	As 188.979†	-4.8	-4.4	-7.7954 µg/L	-7.7954 ppb	18:02:31
2	B 249.677†	386.2	6.0	0.2082 µg/L	0.2082 ppb	18:02:31
2	Ba 233.527†	39.6	57.1	1.3722 µg/L	1.3722 ppb	18:02:31
2	Be 313.107†	-2662.4	165.6	0.0980 µg/L	0.0980 ppb	18:02:10
2	Cd 226.502†	-131.2	9.1	0.2184 µg/L	0.2184 ppb	18:02:31
2	Co 228.616†	10.3	8.4	0.3810 µg/L	0.3810 ppb	18:02:31
2	Cr 267.716†	-0.2	50.2	1.0080 µg/L	1.0080 ppb	18:02:10
2	Cu 324.752†	2679.8	163.9	1.0808 µg/L	1.0808 ppb	18:02:10
2	Mn 257.610†	493.5	754.7	2.3723 µg/L	2.3723 ppb	18:02:31
2	Mo 202.031†	0.1	5.4	0.5321 µg/L	0.5321 ppb	18:02:31
2	Ni 231.604†	312.7	3.7	0.1827 µg/L	0.1827 ppb	18:02:31
2	P 214.914†	12.3	-2.9	-5.5799 µg/L	-5.5799 ppb	18:02:31
2	Pb 220.353†	94.5	4.5	1.0933 µg/L	1.0933 ppb	18:02:31

2	S 181.975 Axial†	16.6	-2.2	-9.0188 µg/L	-9.0188 ppb	18:02:31
2	Sb 206.836†	21.7	-0.5	-0.4935 µg/L	-0.4935 ppb	18:02:31
2	Se 196.026†	19.6	0.5	0.9173 µg/L	0.9173 ppb	18:02:31
2	SiO2†	1830.9	458.4	90.488 µg/L	90.488 ppb	18:02:10
2	Si 251.611†	771.7	469.1	35.663 µg/L	35.663 ppb	18:02:31
2	Sn 189.927†	54.4	54.6	23.003 µg/L	23.003 ppb	18:02:31
2	Ti 334.940†	529.6	360.1	0.7948 µg/L	0.7948 ppb	18:02:10
2	Tl 190.801†	-17.9	4.3	5.5840 µg/L	5.5840 ppb	18:02:31
2	U 409.014†	-30.1	46.7	3.8658 µg/L	3.8658 ppb	18:02:10
2	V 292.402†	-12.7	32.0	0.3308 µg/L	0.3308 ppb	18:02:10
2	Zn 213.857†	678.8	151.5	3.5468 µg/L	3.5468 ppb	18:02:31
3	Sc RADIAL	54342.3	54342.3	96.2 %		18:01:02
3	Al 396.153Radial†	31.9	25.8	17.938 µg/L	17.938 ppb	18:01:02
3	Ca 317.933Radial†	242.4	40.7	34.807 µg/L	34.807 ppb	18:01:22
3	Fe 238.204 Radial†	23.5	7.8	61.797 µg/L	61.797 ppb	18:01:22
3	K 766.490 Radial†	239.9	84.4	55.149 µg/L	55.149 ppb	18:01:02
3	Mg 279.077 IEC†	14.8	2.5	22.576 µg/L	22.576 ppb	18:01:22
3	Na 589.592 Radial†	609.7	161.7	49.656 µg/L	49.656 ppb	18:01:02
3	Sr 421.552†	65.7	39.5	0.3645 µg/L	0.3645 ppb	18:01:02
3	Sc 361.383	1927043.9	1927043.9	98.162 %		18:02:37
3	Y 371.029	1326171.0	1326171.0	98.035 %		18:02:37
3	Ag 328.068†	-356.2	38.7	0.2921 µg/L	0.2921 ppb	18:02:42
3	As 188.979†	-2.2	-1.8	-3.2252 µg/L	-3.2252 ppb	18:03:03
3	B 249.677†	371.6	-5.6	-0.2577 µg/L	-0.2577 ppb	18:03:03
3	Ba 233.527†	46.0	63.9	1.5350 µg/L	1.5350 ppb	18:03:03
3	Be 313.107†	-2775.4	28.4	0.0165 µg/L	0.0165 ppb	18:02:42
3	Cd 226.502†	-137.0	2.2	0.0471 µg/L	0.0471 ppb	18:03:03
3	Co 228.616†	7.3	5.5	0.2470 µg/L	0.2470 ppb	18:03:03
3	Cr 267.716†	0.9	51.2	1.0295 µg/L	1.0295 ppb	18:02:42
3	Cu 324.752†	2706.3	213.2	1.4005 µg/L	1.4005 ppb	18:02:42
3	Mn 257.610†	457.1	721.6	2.2671 µg/L	2.2671 ppb	18:03:03
3	Mo 202.031†	0.3	5.6	0.5521 µg/L	0.5521 ppb	18:03:03
3	Ni 231.604†	315.5	9.1	0.4545 µg/L	0.4545 ppb	18:03:03
3	P 214.914†	15.8	0.7	1.5643 µg/L	1.5643 ppb	18:03:03
3	Pb 220.353†	104.5	15.5	3.7531 µg/L	3.7531 ppb	18:03:03
3	S 181.975 Axial†	21.6	3.1	12.653 µg/L	12.653 ppb	18:03:03
3	Sb 206.836†	25.1	3.1	2.8377 µg/L	2.8377 ppb	18:03:03
3	Se 196.026†	22.4	3.5	5.0659 µg/L	5.0659 ppb	18:03:03
3	SiO2†	1770.1	411.7	81.264 µg/L	81.264 ppb	18:02:42
3	Si 251.611†	756.7	460.3	34.991 µg/L	34.991 ppb	18:03:03
3	Sn 189.927†	49.8	50.4	21.232 µg/L	21.232 ppb	18:03:03
3	Ti 334.940†	608.1	444.5	0.9821 µg/L	0.9821 ppb	18:02:42
3	Tl 190.801†	-23.8	-1.8	-2.3377 µg/L	-2.3377 ppb	18:03:03
3	U 409.014†	-14.8	62.1	5.1447 µg/L	5.1447 ppb	18:02:42
3	V 292.402†	-20.6	23.8	0.2509 µg/L	0.2509 ppb	18:02:42
3	Zn 213.857†	674.9	153.1	3.5842 µg/L	3.5842 ppb	18:03:03

Mean Data: 1202046765|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1931584.4	98.394 %	0.5015			0.51%
Sc RADIAL	54366.6	96.2 %	0.63			0.66%
Y 371.029	1329769.2	98.301 %	0.5011			0.51%
Ag 328.068†	39.2	0.2956 µg/L	0.15714	0.2956 ppb	0.15714	53.17%
Al 396.153Radial†	13.7	9.5145 µg/L	11.50920	9.5145 ppb	11.50920	120.97%
As 188.979†	-2.2	-3.9570 µg/L	3.52977	-3.9570 ppb	3.52977	89.20%
B 249.677†	4.0	0.1247 µg/L	0.34832	0.1247 ppb	0.34832	279.26%
Ba 233.527†	63.1	1.5159 µg/L	0.13523	1.5159 ppb	0.13523	8.92%
Be 313.107†	88.2	0.0520 µg/L	0.04174	0.0520 ppb	0.04174	80.26%
Ca 317.933Radial†	36.2	30.957 µg/L	4.1814	30.957 ppb	4.1814	13.51%
Cd 226.502†	4.9	0.1143 µg/L	0.09138	0.1143 ppb	0.09138	79.95%
Co 228.616†	8.4	0.3807 µg/L	0.13343	0.3807 ppb	0.13343	35.05%
Cr 267.716†	47.6	0.9564 µg/L	0.10846	0.9564 ppb	0.10846	11.34%
Cu 324.752†	198.3	1.3047 µg/L	0.19458	1.3047 ppb	0.19458	14.91%
Fe 238.204 Radial†	9.4	74.417 µg/L	11.6925	74.417 ppb	11.6925	15.71%
K 766.490 Radial†	65.1	42.523 µg/L	32.1787	42.523 ppb	32.1787	75.67%
Mg 279.077 IEC†	2.5	22.586 µg/L	5.7946	22.586 ppb	5.7946	25.66%
Mn 257.610†	753.4	2.3681 µg/L	0.09902	2.3681 ppb	0.09902	4.18%
Mo 202.031†	4.7	0.4587 µg/L	0.14477	0.4587 ppb	0.14477	31.56%
Na 589.592 Radial†	156.1	47.939 µg/L	2.7293	47.939 ppb	2.7293	5.69%



Ni 231.604†	8.1	0.4048 µg/L	0.20189	0.4048 ppb	0.20189	49.87%
P 214.914†	-0.3	-0.4190 µg/L	4.50914	-0.4190 ppb	4.50914	>999.9%
Pb 220.353†	7.9	1.9012 µg/L	1.60810	1.9012 ppb	1.60810	84.58%
S 181.975 Axial†	2.3	9.5839 µg/L	17.27375	9.5839 ppb	17.27375	180.24%
Sb 206.836†	2.3	2.0809 µg/L	2.29177	2.0809 ppb	2.29177	110.13%
Se 196.026†	-1.7	-2.1792 µg/L	9.19318	-2.1792 ppb	9.19318	421.86%
SiO2†	432.1	85.296 µg/L	4.7204	85.296 ppb	4.7204	5.53%
Si 251.611†	469.7	35.709 µg/L	0.7411	35.709 ppb	0.7411	2.08%
Sn 189.927†	53.4	22.499 µg/L	1.1049	22.499 ppb	1.1049	4.91%
Sr 421.552†	36.4	0.3359 µg/L	0.11807	0.3359 ppb	0.11807	35.15%
Ti 334.940†	428.8	0.9474 µg/L	0.13849	0.9474 ppb	0.13849	14.62%
Tl 190.801†	-0.4	-0.4959 µg/L	5.39995	-0.4959 ppb	5.39995	>999.9%
U 409.014†	62.6	5.1849 µg/L	1.33957	5.1849 ppb	1.33957	25.84%
V 292.402†	7.1	0.0891 µg/L	0.35172	0.0891 ppb	0.35172	394.62%
Zn 213.857†	158.3	3.7059 µg/L	0.24397	3.7059 ppb	0.24397	6.58%

Sequence No.: 10

Sample ID: 1202046766|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 308

Date Collected: 2/19/2010 18:03:12

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202046766|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56269.6	56269.6	99.6 %		18:03:51
1	Al 396.153Radial†	130292.6	130808.5	90985 µg/L	90985 ppb	18:03:46
1	Ca 317.933Radial†	126611.6	126908.8	108400 µg/L	108400 ppb	18:03:46
1	Fe 238.204 Radial†	25818.6	25905.8	204340 µg/L	204340 ppb	18:03:51
1	K 766.490 Radial†	65639.2	65737.9	42934 µg/L	42934 ppb	18:03:46
1	Mg 279.077 IEC†	4586.1	4591.7	40836 µg/L	40836 ppb	18:03:51
1	Na 589.592 Radial†	35734.3	35405.6	10875 µg/L	10875 ppb	18:03:46
1	Sr 421.552†	266541.1	267582.8	2468.5 µg/L	2468.5 ppb	18:03:46
1	Sc 361.383	1934863.8	1934863.8	98.561 %		18:04:26
1	Y 371.029	1360580.2	1360580.2	100.58 %		18:04:26
1	Ag 328.068†	42149.8	43167.0	341.27 µg/L	341.27 ppb	18:04:32
1	As 188.979†	659.1	669.1	1204.4 µg/L	1204.4 ppb	18:04:52
1	B 249.677†	39134.2	39321.5	1500.2 µg/L	1500.2 ppb	18:04:32
1	Ba 233.527†	87532.9	88828.3	2134.9 µg/L	2134.9 ppb	18:04:32
1	Be 313.107†	1451984.9	1476044.8	873.80 µg/L	873.80 ppb	18:04:26
1	Cd 226.502†	26497.8	27026.4	652.46 µg/L	652.46 ppb	18:04:32
1	Co 228.616†	22290.8	22614.4	1012.4 µg/L	1012.4 ppb	18:04:32
1	Cr 267.716†	128470.9	130397.4	2619.9 µg/L	2619.9 ppb	18:04:32
1	Cu 324.752†	300039.2	301877.1	1998.9 µg/L	1998.9 ppb	18:04:32
1	Mn 257.610†	1861422.5	1888862.1	5940.5 µg/L	5940.5 ppb	18:04:26
1	Mo 202.031†	5904.3	5995.9	594.92 µg/L	594.92 ppb	18:04:52
1	Ni 231.604†	29569.8	29689.3	1481.4 µg/L	1481.4 ppb	18:04:32
1	P 214.914†	4666.1	4718.9	9013.2 µg/L	9013.2 ppb	18:04:52
1	Pb 220.353†	3816.3	3781.1	914.87 µg/L	914.87 ppb	18:04:52
1	S 181.975 Axial†	1009.5	1005.3	4169.1 µg/L	4169.1 ppb	18:04:52
1	Sb 206.836†	2148.3	2157.2	1950.9 µg/L	1950.9 ppb	18:04:52
1	Se 196.026†	2172.3	2184.7	3560.0 µg/L	3560.0 ppb	18:04:52
1	SiO2†	122235.0	122628.5	24205 µg/L	24205 ppb	18:04:32
1	Si 251.611†	146449.0	148277.1	11272 µg/L	11272 ppb	18:04:32
1	Sn 189.927†	2895.2	2937.1	1221.1 µg/L	1221.1 ppb	18:04:52
1	Ti 334.940†	2619063.7	2657136.4	5876.7 µg/L	5876.7 ppb	18:04:26
1	Tl 190.801†	947.2	983.4	1374.6 µg/L	1374.6 ppb	18:04:52
1	U 409.014†	-1352.1	-1294.8	-142.59 µg/L	-142.59 ppb	18:04:32
1	V 292.402†	132267.1	134243.4	1342.7 µg/L	1342.7 ppb	18:04:32
1	Zn 213.857†	270095.7	273505.7	6395.1 µg/L	6395.1 ppb	18:04:32
2	Sc RADIAL	55940.9	55940.9	99.0 %		18:04:02
2	Al 396.153Radial†	128998.2	130270.0	90611 µg/L	90611 ppb	18:03:57
2	Ca 317.933Radial†	124918.2	125945.7	107580 µg/L	107580 ppb	18:03:57
2	Fe 238.204 Radial†	25577.2	25814.3	203620 µg/L	203620 ppb	18:04:02
2	K 766.490 Radial†	64919.1	65397.9	42712 µg/L	42712 ppb	18:03:57
2	Mg 279.077 IEC†	4586.1	4618.8	41079 µg/L	41079 ppb	18:04:02
2	Na 589.592 Radial†	35439.5	35318.8	10848 µg/L	10848 ppb	18:03:57
2	Sr 421.552†	263572.4	266157.3	2455.3 µg/L	2455.3 ppb	18:03:57
2	Sc 361.383	1951918.2	1951918.2	99.429 %		18:04:59
2	Y 371.029	1372357.9	1372357.9	101.45 %		18:04:59
2	Ag 328.068†	42266.6	42910.8	339.30 µg/L	339.30 ppb	18:05:05
2	As 188.979†	664.5	668.8	1203.7 µg/L	1203.7 ppb	18:05:26
2	B 249.677†	39458.3	39300.6	1499.7 µg/L	1499.7 ppb	18:05:05
2	Ba 233.527†	88016.6	88538.8	2127.9 µg/L	2127.9 ppb	18:05:05
2	Be 313.107†	1455994.1	1467205.5	868.57 µg/L	868.57 ppb	18:04:59
2	Cd 226.502†	26694.8	26989.6	651.61 µg/L	651.61 ppb	18:05:05
2	Co 228.616†	22379.4	22505.9	1007.6 µg/L	1007.6 ppb	18:05:05
2	Cr 267.716†	129370.7	130163.5	2615.2 µg/L	2615.2 ppb	18:05:05
2	Cu 324.752†	301230.2	300415.1	1989.3 µg/L	1989.3 ppb	18:05:05
2	Mn 257.610†	1864859.8	1875817.8	5899.6 µg/L	5899.6 ppb	18:04:59
2	Mo 202.031†	5917.2	5956.5	591.03 µg/L	591.03 ppb	18:05:26
2	Ni 231.604†	29696.5	29554.6	1474.7 µg/L	1474.7 ppb	18:05:05
2	P 214.914†	4670.5	4682.0	8941.6 µg/L	8941.6 ppb	18:05:26
2	Pb 220.353†	3807.7	3738.6	904.55 µg/L	904.55 ppb	18:05:26

2	S 181.975 Axial†	1005.0	991.8	4113.1 µg/L	4113.1 ppb	18:05:26
2	Sb 206.836†	2144.7	2134.5	1930.1 µg/L	1930.1 ppb	18:05:26
2	Se 196.026†	2203.8	2197.1	3575.4 µg/L	3575.4 ppb	18:05:26
2	SiO2†	123269.2	122585.0	24197 µg/L	24197 ppb	18:05:05
2	Si 251.611†	147781.6	148319.0	11276 µg/L	11276 ppb	18:05:05
2	Sn 189.927†	2900.6	2916.9	1212.7 µg/L	1212.7 ppb	18:05:26
2	Ti 334.940†	2624781.8	2639669.8	5838.0 µg/L	5838.0 ppb	18:04:59
2	Tl 190.801†	953.9	981.7	1371.9 µg/L	1371.9 ppb	18:05:26
2	U 409.014†	-1415.4	-1346.4	-146.73 µg/L	-146.73 ppb	18:05:05
2	V 292.402†	133042.1	133850.3	1338.8 µg/L	1338.8 ppb	18:05:05
2	Zn 213.857†	271755.4	272780.5	6378.2 µg/L	6378.2 ppb	18:05:05
3	Sc RADIAL	55498.3	55498.3	98.2 %		18:04:13
3	Al 396.153Radial†	130091.7	132422.3	92108 µg/L	92108 ppb	18:04:08
3	Ca 317.933Radial†	125875.6	127926.5	109270 µg/L	109270 ppb	18:04:08
3	Fe 238.204 Radial†	25339.7	25778.5	203330 µg/L	203330 ppb	18:04:13
3	K 766.490 Radial†	65510.5	66522.8	43447 µg/L	43447 ppb	18:04:08
3	Mg 279.077 IEC†	4521.6	4590.1	40823 µg/L	40823 ppb	18:04:13
3	Na 589.592 Radial†	35676.0	35845.0	11010 µg/L	11010 ppb	18:04:08
3	Sr 421.552†	265343.8	270083.5	2491.6 µg/L	2491.6 ppb	18:04:08
3	Sc 361.383	1942813.6	1942813.6	98.966 %		18:05:33
3	Y 371.029	1366581.2	1366581.2	101.02 %		18:05:33
3	Ag 328.068†	41974.0	42814.3	338.56 µg/L	338.56 ppb	18:05:39
3	As 188.979†	651.7	659.0	1186.1 µg/L	1186.1 ppb	18:05:59
3	B 249.677†	39211.3	39237.0	1497.3 µg/L	1497.3 ppb	18:05:39
3	Ba 233.527†	87613.5	88546.4	2128.1 µg/L	2128.1 ppb	18:05:39
3	Be 313.107†	1475246.0	1493521.0	884.15 µg/L	884.15 ppb	18:05:33
3	Cd 226.502†	26576.7	26996.2	651.81 µg/L	651.81 ppb	18:05:39
3	Co 228.616†	22301.4	22532.6	1008.6 µg/L	1008.6 ppb	18:05:39
3	Cr 267.716†	128634.8	130029.6	2612.5 µg/L	2612.5 ppb	18:05:39
3	Cu 324.752†	299647.2	300235.4	1988.0 µg/L	1988.0 ppb	18:05:39
3	Mn 257.610†	1888761.5	1908758.8	6002.7 µg/L	6002.7 ppb	18:05:33
3	Mo 202.031†	5927.0	5994.3	594.73 µg/L	594.73 ppb	18:05:59
3	Ni 231.604†	29540.3	29536.7	1473.8 µg/L	1473.8 ppb	18:05:39
3	P 214.914†	4679.5	4713.1	9004.1 µg/L	9004.1 ppb	18:05:59
3	Pb 220.353†	3819.1	3768.1	911.82 µg/L	911.82 ppb	18:05:59
3	S 181.975 Axial†	1004.6	996.1	4130.9 µg/L	4130.9 ppb	18:05:59
3	Sb 206.836†	2141.0	2140.9	1935.9 µg/L	1935.9 ppb	18:05:59
3	Se 196.026†	2200.2	2203.9	3584.0 µg/L	3584.0 ppb	18:05:59
3	SiO2†	122331.3	122218.4	24124 µg/L	24124 ppb	18:05:39
3	Si 251.611†	146526.2	147747.0	11232 µg/L	11232 ppb	18:05:39
3	Sn 189.927†	2914.8	2944.9	1224.5 µg/L	1224.5 ppb	18:05:59
3	Ti 334.940†	2657781.7	2685385.7	5939.2 µg/L	5939.2 ppb	18:05:33
3	Tl 190.801†	946.1	978.4	1368.9 µg/L	1368.9 ppb	18:05:59
3	U 409.014†	-1379.6	-1317.0	-144.35 µg/L	-144.35 ppb	18:05:39
3	V 292.402†	132362.2	133790.4	1338.2 µg/L	1338.2 ppb	18:05:39
3	Zn 213.857†	270388.7	272680.4	6375.8 µg/L	6375.8 ppb	18:05:39

Mean Data: 1202046766|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1943198.5	98.985 %	0.4347			0.44%
Sc RADIAL	55902.9	99.0 %	0.69			0.69%
Y 371.029	1366506.4	101.02 %	0.435			0.43%
Ag 328.068†	42964.0	339.71 µg/L	1.398	339.71 ppb	1.398	0.41%
Al 396.153Radial†	131166.9	91235 µg/L	779.1	91235 ppb	779.1	0.85%
As 188.979†	665.7	1198.1 µg/L	10.38	1198.1 ppb	10.38	0.87%
B 249.677†	39286.4	1499.1 µg/L	1.57	1499.1 ppb	1.57	0.10%
Ba 233.527†	88637.8	2130.3 µg/L	3.97	2130.3 ppb	3.97	0.19%
Be 313.107†	1478923.8	875.51 µg/L	7.929	875.51 ppb	7.929	0.91%
Ca 317.933Radial†	126927.0	108420 µg/L	846.1	108420 ppb	846.1	0.78%
Cd 226.502†	27004.1	651.96 µg/L	0.442	651.96 ppb	0.442	0.07%
Co 228.616†	22551.0	1009.5 µg/L	2.55	1009.5 ppb	2.55	0.25%
Cr 267.716†	130196.8	2615.9 µg/L	3.74	2615.9 ppb	3.74	0.14%
Cu 324.752†	300842.5	1992.1 µg/L	5.95	1992.1 ppb	5.95	0.30%
Fe 238.204 Radial†	25832.9	203760 µg/L	517.6	203760 ppb	517.6	0.25%
K 766.490 Radial†	65886.2	43031 µg/L	376.8	43031 ppb	376.8	0.88%
Mg 279.077 IEC†	4600.2	40913 µg/L	144.1	40913 ppb	144.1	0.35%
Mn 257.610†	1891146.2	5947.6 µg/L	51.93	5947.6 ppb	51.93	0.87%
Mo 202.031†	5982.2	593.56 µg/L	2.191	593.56 ppb	2.191	0.37%
Na 589.592 Radial†	35523.1	10911 µg/L	86.6	10911 ppb	86.6	0.79%

Ni 231.604†	29593.6	1476.7 µg/L	4.16	1476.7 ppb	4.16	0.28%
P 214.914†	4704.6	8986.3 µg/L	39.02	8986.3 ppb	39.02	0.43%
Pb 220.353†	3762.6	910.41 µg/L	5.300	910.41 ppb	5.300	0.58%
S 181.975 Axial†	997.8	4137.7 µg/L	28.60	4137.7 ppb	28.60	0.69%
Sb 206.836†	2144.2	1939.0 µg/L	10.71	1939.0 ppb	10.71	0.55%
Se 196.026†	2195.2	3573.1 µg/L	12.14	3573.1 ppb	12.14	0.34%
SiO2†	122477.3	24175 µg/L	44.5	24175 ppb	44.5	0.18%
Si 251.611†	148114.4	11260 µg/L	24.2	11260 ppb	24.2	0.22%
Sn 189.927†	2933.0	1219.4 µg/L	6.09	1219.4 ppb	6.09	0.50%
Sr 421.552†	267941.2	2471.8 µg/L	18.33	2471.8 ppb	18.33	0.74%
Ti 334.940†	2660730.6	5884.6 µg/L	51.06	5884.6 ppb	51.06	0.87%
Tl 190.801†	981.2	1371.8 µg/L	2.89	1371.8 ppb	2.89	0.21%
U 409.014†	-1319.4	-144.55 µg/L	2.078	-144.55 ppb	2.078	1.44%
V 292.402†	133961.4	1339.9 µg/L	2.48	1339.9 ppb	2.48	0.18%
Zn 213.857†	272988.9	6383.0 µg/L	10.52	6383.0 ppb	10.52	0.16%

Sequence No.: 11

Sample ID: 245688001|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 309

Date Collected: 2/19/2010 18:06:09

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688001|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56658.6	56658.6	100 %		18:06:41
1	Al 396.153Radial†	43990.6	43856.7	30509 µg/L	30509 ppb	18:06:41
1	Ca 317.933Radial†	9595.6	9356.7	7992.3 µg/L	7992.3 ppb	18:07:01
1	Fe 238.204 Radial†	8267.5	8227.2	64888 µg/L	64888 ppb	18:07:01
1	K 766.490 Radial†	10851.2	10655.0	6959.0 µg/L	6959.0 ppb	18:06:41
1	Mg 279.077 IEC†	774.1	759.0	6715.5 µg/L	6715.5 ppb	18:07:01
1	Na 589.592 Radial†	1838.4	1360.9	417.98 µg/L	417.98 ppb	18:06:41
1	Sr 421.552†	10799.6	10739.8	99.076 µg/L	99.076 ppb	18:06:41
1	Sc 361.383	2002841.7	2002841.7	102.02 %		18:08:05
1	Y 371.029	1404317.0	1404317.0	103.81 %		18:08:05
1	Ag 328.068†	-1165.4	-740.7	-0.6159 µg/L	-0.6159 ppb	18:08:11
1	As 188.979†	8.8	9.1	19.633 µg/L	19.633 ppb	18:08:31
1	B 249.677†	924.0	521.5	-12.468 µg/L	-12.468 ppb	18:08:11
1	Ba 233.527†	18915.8	18557.7	445.73 µg/L	445.73 ppb	18:08:11
1	Be 313.107†	7135.3	9849.5	4.9873 µg/L	4.9873 ppb	18:08:11
1	Cd 226.502†	119.9	259.2	-0.8102 µg/L	-0.8102 ppb	18:08:31
1	Co 228.616†	851.8	833.0	33.023 µg/L	33.023 ppb	18:08:31
1	Cr 267.716†	4248.8	4214.9	84.732 µg/L	84.732 ppb	18:08:11
1	Cu 324.752†	12499.4	9707.7	72.386 µg/L	72.386 ppb	18:08:11
1	Mn 257.610†	630248.2	618004.6	1943.7 µg/L	1943.7 ppb	18:08:05
1	Mo 202.031†	28.1	32.9	5.6887 µg/L	5.6887 ppb	18:08:31
1	Ni 231.604†	1499.7	1157.7	58.507 µg/L	58.507 ppb	18:08:31
1	P 214.914†	-16.0	-31.0	319.94 µg/L	319.94 ppb	18:08:31
1	Pb 220.353†	484.2	383.6	92.402 µg/L	92.402 ppb	18:08:31
1	S 181.975 Axial†	122.4	101.0	418.84 µg/L	418.84 ppb	18:08:31
1	Sb 206.836†	-65.2	-86.4	-80.897 µg/L	-80.897 ppb	18:08:31
1	Se 196.026†	-18.8	-37.7	116.10 µg/L	116.10 ppb	18:08:31
1	SiO2†	120727.0	116941.1	23083 µg/L	23083 ppb	18:08:11
1	Si 251.611†	147037.6	143810.8	10933 µg/L	10933 ppb	18:08:05
1	Sn 189.927†	70548.3	69148.8	29155 µg/L	29155 ppb	18:08:11
1	Ti 334.940†	1039255.7	1018469.4	2252.7 µg/L	2252.7 ppb	18:08:05
1	Tl 190.801†	-41.3	-18.1	14.769 µg/L	14.769 ppb	18:08:31
1	U 409.014†	-509.7	-422.5	-44.611 µg/L	-44.611 ppb	18:08:11
1	V 292.402†	12377.9	12177.1	126.49 µg/L	126.49 ppb	18:08:11
1	Zn 213.857†	8274.3	7575.8	173.91 µg/L	173.91 ppb	18:08:11
2	Sc RADIAL	56572.8	56572.8	100 %		18:07:07
2	Al 396.153Radial†	43624.4	43557.5	30301 µg/L	30301 ppb	18:07:07
2	Ca 317.933Radial†	9585.5	9361.2	7996.1 µg/L	7996.1 ppb	18:07:27
2	Fe 238.204 Radial†	8258.6	8230.8	64916 µg/L	64916 ppb	18:07:27
2	K 766.490 Radial†	10761.7	10582.0	6911.3 µg/L	6911.3 ppb	18:07:07
2	Mg 279.077 IEC†	775.8	761.9	6740.9 µg/L	6740.9 ppb	18:07:27
2	Na 589.592 Radial†	1802.6	1328.0	407.87 µg/L	407.87 ppb	18:07:07
2	Sr 421.552†	10717.6	10674.1	98.470 µg/L	98.470 ppb	18:07:07
2	Sc 361.383	1997573.4	1997573.4	101.76 %		18:08:38
2	Y 371.029	1399622.9	1399622.9	103.46 %		18:08:38
2	Ag 328.068†	-1227.2	-804.4	-1.0817 µg/L	-1.0817 ppb	18:08:44
2	As 188.979†	6.7	7.0	15.954 µg/L	15.954 ppb	18:09:04
2	B 249.677†	908.5	508.7	-13.003 µg/L	-13.003 ppb	18:08:44
2	Ba 233.527†	19021.0	18710.1	449.39 µg/L	449.39 ppb	18:08:44
2	Be 313.107†	7135.0	9867.7	4.9976 µg/L	4.9976 ppb	18:08:44
2	Cd 226.502†	114.1	253.9	-0.9468 µg/L	-0.9468 ppb	18:09:04
2	Co 228.616†	837.9	821.5	32.502 µg/L	32.502 ppb	18:09:04
2	Cr 267.716†	4288.5	4264.9	85.737 µg/L	85.737 ppb	18:08:44
2	Cu 324.752†	12554.9	9794.6	72.957 µg/L	72.957 ppb	18:08:44
2	Mn 257.610†	627184.0	616622.5	1939.3 µg/L	1939.3 ppb	18:08:38
2	Mo 202.031†	22.3	27.2	5.1347 µg/L	5.1347 ppb	18:09:04
2	Ni 231.604†	1483.0	1145.1	57.882 µg/L	57.882 ppb	18:09:04
2	P 214.914†	-15.6	-30.6	324.38 µg/L	324.38 ppb	18:09:04
2	Pb 220.353†	485.7	386.4	93.071 µg/L	93.071 ppb	18:09:04

2	S 181.975 Axial†	119.1	98.1	406.89 µg/L	406.89 ppb	18:09:04
2	Sb 206.836†	-68.3	-89.7	-83.931 µg/L	-83.931 ppb	18:09:04
2	Se 196.026†	-22.6	-41.5	110.85 µg/L	110.85 ppb	18:09:04
2	SiO2†	121417.2	117931.4	23278 µg/L	23278 ppb	18:08:44
2	Si 251.611†	146295.5	143461.6	10906 µg/L	10906 ppb	18:08:38
2	Sn 189.927†	70993.8	69768.9	29416 µg/L	29416 ppb	18:08:44
2	Ti 334.940†	1037091.8	1019029.3	2253.9 µg/L	2253.9 ppb	18:08:38
2	Tl 190.801†	-39.5	-16.4	16.974 µg/L	16.974 ppb	18:09:04
2	U 409.014†	-530.2	-444.0	-46.398 µg/L	-46.398 ppb	18:08:44
2	V 292.402†	12417.3	12247.9	127.18 µg/L	127.18 ppb	18:08:44
2	Zn 213.857†	8292.7	7615.3	174.84 µg/L	174.84 ppb	18:08:44
3	Sc RADIAL	57009.8	57009.8	101 %		18:07:33
3	Al 396.153Radial†	43761.5	43359.5	30163 µg/L	30163 ppb	18:07:33
3	Ca 317.933Radial†	9487.0	9190.2	7850.1 µg/L	7850.1 ppb	18:07:53
3	Fe 238.204 Radial†	8146.6	8056.5	63542 µg/L	63542 ppb	18:07:53
3	K 766.490 Radial†	10752.1	10490.2	6851.3 µg/L	6851.3 ppb	18:07:33
3	Mg 279.077 IEC†	760.8	741.1	6556.7 µg/L	6556.7 ppb	18:07:53
3	Na 589.592 Radial†	1794.6	1306.2	401.19 µg/L	401.19 ppb	18:07:33
3	Sr 421.552†	10711.3	10585.9	97.657 µg/L	97.657 ppb	18:07:33
3	Sc 361.383	1995401.8	1995401.8	101.64 %		18:09:11
3	Y 371.029	1395758.4	1395758.4	103.18 %		18:09:11
3	Ag 328.068†	-1106.1	-686.6	-0.3427 µg/L	-0.3427 ppb	18:09:17
3	As 188.979†	4.4	4.8	11.915 µg/L	11.915 ppb	18:09:38
3	B 249.677†	873.6	475.3	-13.655 µg/L	-13.655 ppb	18:09:17
3	Ba 233.527†	17979.3	17705.5	425.26 µg/L	425.26 ppb	18:09:17
3	Be 313.107†	6548.0	9297.8	4.6990 µg/L	4.6990 ppb	18:09:17
3	Cd 226.502†	97.9	238.0	-1.1911 µg/L	-1.1911 ppb	18:09:38
3	Co 228.616†	770.4	756.0	29.751 µg/L	29.751 ppb	18:09:38
3	Cr 267.716†	4013.0	3998.4	80.380 µg/L	80.380 ppb	18:09:17
3	Cu 324.752†	11940.5	9203.6	68.909 µg/L	68.909 ppb	18:09:17
3	Mn 257.610†	601722.3	592243.5	1862.8 µg/L	1862.8 ppb	18:09:11
3	Mo 202.031†	22.1	27.1	5.0653 µg/L	5.0653 ppb	18:09:38
3	Ni 231.604†	1386.3	1051.6	53.205 µg/L	53.205 ppb	18:09:38
3	P 214.914†	-20.9	-35.9	290.66 µg/L	290.66 ppb	18:09:38
3	Pb 220.353†	470.0	371.5	89.493 µg/L	89.493 ppb	18:09:38
3	S 181.975 Axial†	115.6	94.8	393.22 µg/L	393.22 ppb	18:09:38
3	Sb 206.836†	-61.0	-82.5	-77.256 µg/L	-77.256 ppb	18:09:38
3	Se 196.026†	-13.0	-32.1	120.55 µg/L	120.55 ppb	18:09:38
3	SiO2†	114966.8	111715.3	22051 µg/L	22051 ppb	18:09:17
3	Si 251.611†	141428.6	138830.0	10554 µg/L	10554 ppb	18:09:11
3	Sn 189.927†	66877.8	65795.5	27741 µg/L	27741 ppb	18:09:17
3	Ti 334.940†	988173.3	972011.4	2149.9 µg/L	2149.9 ppb	18:09:11
3	Tl 190.801†	-35.7	-12.7	20.367 µg/L	20.367 ppb	18:09:38
3	U 409.014†	-555.3	-469.3	-48.299 µg/L	-48.299 ppb	18:09:17
3	V 292.402†	11657.8	11514.0	119.85 µg/L	119.85 ppb	18:09:17
3	Zn 213.857†	7872.2	7210.4	165.45 µg/L	165.45 ppb	18:09:17

Mean Data: 245688001|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1998605.6	101.81 %	0.195			0.19%
Sc RADIAL	56747.0	100 %	0.4			0.41%
Y 371.029	1399899.4	103.49 %	0.317			0.31%
Ag 328.068†	-743.9	-0.6801 µg/L	0.37366	-0.6801 ppb	0.37366	54.94%
Al 396.153Radial†	43591.2	30324 µg/L	174.1	30324 ppb	174.1	0.57%
As 188.979†	7.0	15.834 µg/L	3.8604	15.834 ppb	3.8604	24.38%
B 249.677†	501.8	-13.042 µg/L	0.5945	-13.042 ppb	0.5945	4.56%
Ba 233.527†	18324.4	440.13 µg/L	13.005	440.13 ppb	13.005	2.95%
Be 313.107†	9671.7	4.8946 µg/L	0.16949	4.8946 ppb	0.16949	3.46%
Ca 317.933Radial†	9302.7	7946.2 µg/L	83.25	7946.2 ppb	83.25	1.05%
Cd 226.502†	250.4	-0.9827 µg/L	0.19295	-0.9827 ppb	0.19295	19.63%
Co 228.616†	803.5	31.759 µg/L	1.7584	31.759 ppb	1.7584	5.54%
Cr 267.716†	4159.4	83.616 µg/L	2.8474	83.616 ppb	2.8474	3.41%
Cu 324.752†	9568.6	71.417 µg/L	2.1914	71.417 ppb	2.1914	3.07%
Fe 238.204 Radial†	8171.5	64449 µg/L	785.4	64449 ppb	785.4	1.22%
K 766.490 Radial†	10575.7	6907.2 µg/L	53.94	6907.2 ppb	53.94	0.78%
Mg 279.077 IEC†	754.0	6671.1 µg/L	99.81	6671.1 ppb	99.81	1.50%
Mn 257.610†	608956.9	1915.3 µg/L	45.48	1915.3 ppb	45.48	2.37%
Mo 202.031†	29.1	5.2962 µg/L	0.34166	5.2962 ppb	0.34166	6.45%
Na 589.592 Radial†	1331.7	409.02 µg/L	8.454	409.02 ppb	8.454	2.07%

Ni 231.604†	1118.1	56.531 µg/L	2.8977	56.531 ppb	2.8977	5.13%
P 214.914†	-32.5	311.66 µg/L	18.323	311.66 ppb	18.323	5.88%
Pb 220.353†	380.5	91.656 µg/L	1.9027	91.656 ppb	1.9027	2.08%
S 181.975 Axial†	98.0	406.31 µg/L	12.820	406.31 ppb	12.820	3.16%
Sb 206.836†	-86.2	-80.695 µg/L	3.3422	-80.695 ppb	3.3422	4.14%
Se 196.026†	-37.1	115.83 µg/L	4.852	115.83 ppb	4.852	4.19%
SiO2†	115529.3	22804 µg/L	659.3	22804 ppb	659.3	2.89%
Si 251.611†	142034.1	10798 µg/L	211.4	10798 ppb	211.4	1.96%
Sn 189.927†	68237.7	28771 µg/L	901.4	28771 ppb	901.4	3.13%
Sr 421.552†	10666.6	98.401 µg/L	0.7123	98.401 ppb	0.7123	0.72%
Ti 334.940†	1003170.1	2218.8 µg/L	59.69	2218.8 ppb	59.69	2.69%
Tl 190.801†	-15.7	17.370 µg/L	2.8197	17.370 ppb	2.8197	16.23%
U 409.014†	-445.2	-46.436 µg/L	1.8444	-46.436 ppb	1.8444	3.97%
V 292.402†	11979.7	124.51 µg/L	4.047	124.51 ppb	4.047	3.25%
Zn 213.857†	7467.2	171.40 µg/L	5.178	171.40 ppb	5.178	3.02%

Sequence No.: 12  
 Sample ID: 1202030847|954751|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 310  
 Date Collected: 2/19/2010 18:09:47  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Replicate Data: 1202030847|954751|1

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56698.1	56698.1	100 %		18:10:20
1	Al 396.153Radial†	38826.9	38680.8	26908 µg/L	26908 ppb	18:10:20
1	Ca 317.933Radial†	8522.8	8281.1	7073.6 µg/L	7073.6 ppb	18:10:41
1	Fe 238.204 Radial†	8165.7	8120.0	64042 µg/L	64042 ppb	18:10:41
1	K 766.490 Radial†	9573.8	9374.6	6122.7 µg/L	6122.7 ppb	18:10:20
1	Mg 279.077 IEC†	691.2	676.0	5973.8 µg/L	5973.8 ppb	18:10:41
1	Na 589.592 Radial†	1617.1	1139.2	349.89 µg/L	349.89 ppb	18:10:20
1	Sr 421.552†	9389.9	9327.6	86.048 µg/L	86.048 ppb	18:10:20
1	Sc 361.383	2000935.3	2000935.3	101.93 %		18:11:44
1	Y 371.029	1397662.9	1397662.9	103.32 %		18:11:44
1	Ag 328.068†	-1211.0	-786.5	-1.0174 µg/L	-1.0174 ppb	18:11:50
1	As 188.979†	6.5	6.8	15.521 µg/L	15.521 ppb	18:12:10
1	B 249.677†	828.2	428.4	-15.836 µg/L	-15.836 ppb	18:11:50
1	Ba 233.527†	16835.8	16534.7	397.16 µg/L	397.16 ppb	18:11:50
1	Be 313.107†	5846.5	8591.7	4.2690 µg/L	4.2690 ppb	18:11:50
1	Cd 226.502†	115.1	254.6	-0.8435 µg/L	-0.8435 ppb	18:12:10
1	Co 228.616†	811.3	794.1	31.416 µg/L	31.416 ppb	18:12:10
1	Cr 267.716†	3785.6	3764.4	75.683 µg/L	75.683 ppb	18:11:50
1	Cu 324.752†	9954.7	7222.9	56.049 µg/L	56.049 ppb	18:11:50
1	Mn 257.610†	597610.4	586572.3	1845.1 µg/L	1845.1 ppb	18:11:44
1	Mo 202.031†	23.7	28.6	5.2321 µg/L	5.2321 ppb	18:12:10
1	Ni 231.604†	1201.7	866.6	43.991 µg/L	43.991 ppb	18:12:10
1	P 214.914†	260.7	240.4	427.25 µg/L	427.25 ppb	18:12:10
1	Pb 220.353†	430.7	331.7	79.623 µg/L	79.623 ppb	18:12:10
1	S 181.975 Axial†	107.3	86.3	358.01 µg/L	358.01 ppb	18:12:10
1	Sb 206.836†	28.3	5.3	3.4525 µg/L	3.4525 ppb	18:12:10
1	Se 196.026†	-19.9	-38.8	113.17 µg/L	113.17 ppb	18:12:10
1	SiO2†	104522.1	101155.2	19967 µg/L	19967 ppb	18:11:50
1	Si 251.611†	125306.7	122627.9	9322.4 µg/L	9322.4 ppb	18:11:50
1	Sn 189.927†	88.0	86.0	30.095 µg/L	30.095 ppb	18:12:10
1	Ti 334.940†	1004180.9	985028.0	2178.7 µg/L	2178.7 ppb	18:11:44
1	Tl 190.801†	-51.9	-28.6	-0.1596 µg/L	-0.1596 ppb	18:12:10
1	U 409.014†	-388.5	-304.1	-34.597 µg/L	-34.597 ppb	18:11:50
1	V 292.402†	12226.9	12040.6	125.05 µg/L	125.05 ppb	18:11:50
1	Zn 213.857†	7958.2	7273.4	166.99 µg/L	166.99 ppb	18:11:50
2	Sc RADIAL	56537.1	56537.1	100 %		18:10:46
2	Al 396.153Radial†	38581.7	38546.1	26815 µg/L	26815 ppb	18:10:46
2	Ca 317.933Radial†	8505.1	8287.6	7079.1 µg/L	7079.1 ppb	18:11:06
2	Fe 238.204 Radial†	8158.6	8136.0	64169 µg/L	64169 ppb	18:11:06
2	K 766.490 Radial†	9487.8	9315.8	6084.3 µg/L	6084.3 ppb	18:10:46
2	Mg 279.077 IEC†	684.3	671.0	5929.0 µg/L	5929.0 ppb	18:11:06
2	Na 589.592 Radial†	1659.5	1186.1	364.31 µg/L	364.31 ppb	18:10:46
2	Sr 421.552†	9265.4	9229.8	85.146 µg/L	85.146 ppb	18:10:46
2	Sc 361.383	2000028.5	2000028.5	101.88 %		18:12:17
2	Y 371.029	1396187.5	1396187.5	103.21 %		18:12:17
2	Ag 328.068†	-1183.7	-760.2	-0.8038 µg/L	-0.8038 ppb	18:12:23
2	As 188.979†	7.8	8.1	17.865 µg/L	17.865 ppb	18:12:43
2	B 249.677†	821.1	421.8	-16.167 µg/L	-16.167 ppb	18:12:23
2	Ba 233.527†	17111.5	16812.8	403.84 µg/L	403.84 ppb	18:12:23
2	Be 313.107†	6075.7	8819.3	4.4031 µg/L	4.4031 ppb	18:12:23
2	Cd 226.502†	108.4	248.1	-1.0204 µg/L	-1.0204 ppb	18:12:43
2	Co 228.616†	807.4	790.6	31.253 µg/L	31.253 ppb	18:12:43
2	Cr 267.716†	3832.5	3812.1	76.643 µg/L	76.643 ppb	18:12:23
2	Cu 324.752†	10076.3	7346.6	56.874 µg/L	56.874 ppb	18:12:23
2	Mn 257.610†	598277.3	587492.6	1848.0 µg/L	1848.0 ppb	18:12:17
2	Mo 202.031†	24.3	29.2	5.3002 µg/L	5.3002 ppb	18:12:43
2	Ni 231.604†	1182.6	848.5	43.088 µg/L	43.088 ppb	18:12:43
2	P 214.914†	263.5	243.3	432.85 µg/L	432.85 ppb	18:12:43
2	Pb 220.353†	411.8	313.3	75.147 µg/L	75.147 ppb	18:12:43



2	S 181.975 Axial†	103.5	82.6	342.67 µg/L	342.67 ppb	18:12:43
2	Sb 206.836†	30.4	7.4	5.3354 µg/L	5.3354 ppb	18:12:43
2	Se 196.026†	-19.4	-38.4	114.19 µg/L	114.19 ppb	18:12:43
2	SiO2†	105777.7	102434.1	20219 µg/L	20219 ppb	18:12:23
2	Si 251.611†	126810.5	124159.7	9438.9 µg/L	9438.9 ppb	18:12:23
2	Sn 189.927†	93.2	91.1	32.255 µg/L	32.255 ppb	18:12:43
2	Ti 334.940†	1004863.5	986144.6	2181.2 µg/L	2181.2 ppb	18:12:17
2	Tl 190.801†	-46.0	-22.7	7.4483 µg/L	7.4483 ppb	18:12:43
2	U 409.014†	-361.9	-278.1	-32.460 µg/L	-32.460 ppb	18:12:23
2	V 292.402†	12394.5	12210.5	126.72 µg/L	126.72 ppb	18:12:23
2	Zn 213.857†	8090.7	7407.0	170.13 µg/L	170.13 ppb	18:12:23
3	Sc RADIAL	56739.5	56739.5	100 %		18:11:12
3	Al 396.153Radial†	38727.9	38554.0	26820 µg/L	26820 ppb	18:11:12
3	Ca 317.933Radial†	8489.5	8241.8	7040.0 µg/L	7040.0 ppb	18:11:32
3	Fe 238.204 Radial†	8114.8	8063.3	63595 µg/L	63595 ppb	18:11:32
3	K 766.490 Radial†	9535.2	9329.2	6093.1 µg/L	6093.1 ppb	18:11:12
3	Mg 279.077 IEC†	686.7	670.9	5929.4 µg/L	5929.4 ppb	18:11:32
3	Na 589.592 Radial†	1690.4	1210.9	371.92 µg/L	371.92 ppb	18:11:12
3	Sr 421.552†	9290.7	9222.0	85.074 µg/L	85.074 ppb	18:11:12
3	Sc 361.383	2003924.6	2003924.6	102.08 %		18:12:50
3	Y 371.029	1399308.3	1399308.3	103.44 %		18:12:50
3	Ag 328.068†	-1104.7	-680.6	-0.3177 µg/L	-0.3177 ppb	18:12:56
3	As 188.979†	4.9	5.2	12.675 µg/L	12.675 ppb	18:13:16
3	B 249.677†	828.8	427.8	-15.637 µg/L	-15.637 ppb	18:12:56
3	Ba 233.527†	15735.6	15432.3	370.68 µg/L	370.68 ppb	18:12:56
3	Be 313.107†	5295.0	8042.9	3.9854 µg/L	3.9854 ppb	18:12:56
3	Cd 226.502†	73.2	213.4	-1.8244 µg/L	-1.8244 ppb	18:13:16
3	Co 228.616†	710.7	694.3	27.129 µg/L	27.129 ppb	18:13:16
3	Cr 267.716†	3482.0	3461.5	69.594 µg/L	69.594 ppb	18:12:56
3	Cu 324.752†	9386.9	6652.0	52.261 µg/L	52.261 ppb	18:12:56
3	Mn 257.610†	572162.7	560768.1	1764.3 µg/L	1764.3 ppb	18:12:50
3	Mo 202.031†	12.4	17.5	4.1309 µg/L	4.1309 ppb	18:13:16
3	Ni 231.604†	1105.2	770.4	39.193 µg/L	39.193 ppb	18:13:16
3	P 214.914†	237.7	217.5	382.59 µg/L	382.59 ppb	18:13:16
3	Pb 220.353†	402.8	303.7	72.840 µg/L	72.840 ppb	18:13:16
3	S 181.975 Axial†	99.6	78.7	326.29 µg/L	326.29 ppb	18:13:16
3	Sb 206.836†	30.8	7.6	5.6293 µg/L	5.6293 ppb	18:13:16
3	Se 196.026†	-19.7	-38.7	112.25 µg/L	112.25 ppb	18:13:16
3	SiO2†	97359.0	93984.9	18551 µg/L	18551 ppb	18:12:56
3	Si 251.611†	116679.2	113992.7	8665.9 µg/L	8665.9 ppb	18:12:56
3	Sn 189.927†	75.6	73.7	24.948 µg/L	24.948 ppb	18:13:16
3	Ti 334.940†	954675.3	935060.7	2068.2 µg/L	2068.2 ppb	18:12:50
3	Tl 190.801†	-43.1	-19.8	9.8141 µg/L	9.8141 ppb	18:13:16
3	U 409.014†	-439.0	-352.9	-38.592 µg/L	-38.592 ppb	18:12:56
3	V 292.402†	11342.1	11155.9	116.34 µg/L	116.34 ppb	18:12:56
3	Zn 213.857†	7474.8	6788.2	155.66 µg/L	155.66 ppb	18:12:56

Mean Data: 1202030847|954751|1

Analyte	Mean Corrected	Conc.	Calib. Units	Std.Dev.	Conc. Sample	Std.Dev.	RSD
Sc 361.383	2001629.5	101.96	%	0.104			0.10%
Sc RADIAL	56658.3	100	%	0.2			0.19%
Y 371.029	1397719.6	103.32	%	0.115			0.11%
Ag 328.068†	-742.4	-0.7130	µg/L	0.35862	-0.7130 ppb	0.35862	50.30%
Al 396.153Radial†	38593.7	26848	µg/L	52.6	26848 ppb	52.6	0.20%
As 188.979†	6.7	15.354	µg/L	2.5990	15.354 ppb	2.5990	16.93%
B 249.677†	426.0	-15.880	µg/L	0.2679	-15.880 ppb	0.2679	1.69%
Ba 233.527†	16259.9	390.56	µg/L	17.538	390.56 ppb	17.538	4.49%
Be 313.107†	8484.6	4.2192	µg/L	0.21328	4.2192 ppb	0.21328	5.06%
Ca 317.933Radial†	8270.2	7064.2	µg/L	21.18	7064.2 ppb	21.18	0.30%
Cd 226.502†	238.7	-1.2294	µg/L	0.52283	-1.2294 ppb	0.52283	42.53%
Co 228.616†	759.6	29.932	µg/L	2.4292	29.932 ppb	2.4292	8.12%
Cr 267.716†	3679.3	73.973	µg/L	3.8230	73.973 ppb	3.8230	5.17%
Cu 324.752†	7073.8	55.061	µg/L	2.4603	55.061 ppb	2.4603	4.47%
Fe 238.204 Radial†	8106.4	63935	µg/L	301.3	63935 ppb	301.3	0.47%
K 766.490 Radial†	9339.9	6100.0	µg/L	20.12	6100.0 ppb	20.12	0.33%
Mg 279.077 IEC†	672.6	5944.1	µg/L	25.74	5944.1 ppb	25.74	0.43%
Mn 257.610†	578277.7	1819.2	µg/L	47.55	1819.2 ppb	47.55	2.61%
Mo 202.031†	25.1	4.8877	µg/L	0.65636	4.8877 ppb	0.65636	13.43%
Na 589.592 Radial†	1178.7	362.04	µg/L	11.189	362.04 ppb	11.189	3.09%

Ni 231.604†	828.5	42.091 µg/L	2.5502	42.091 ppb	2.5502	6.06%
P 214.914†	233.7	414.23 µg/L	27.544	414.23 ppb	27.544	6.65%
Pb 220.353†	316.2	75.870 µg/L	3.4487	75.870 ppb	3.4487	4.55%
S 181.975 Axial†	82.5	342.32 µg/L	15.865	342.32 ppb	15.865	4.63%
Sb 206.836†	6.8	4.8057 µg/L	1.18111	4.8057 ppb	1.18111	24.58%
Se 196.026†	-38.6	113.20 µg/L	0.973	113.20 ppb	0.973	0.86%
SiO2†	99191.4	19579 µg/L	898.9	19579 ppb	898.9	4.59%
Si 251.611†	120260.1	9142.4 µg/L	416.72	9142.4 ppb	416.72	4.56%
Sn 189.927†	83.6	29.099 µg/L	3.7536	29.099 ppb	3.7536	12.90%
Sr 421.552†	9259.8	85.423 µg/L	0.5430	85.423 ppb	0.5430	0.64%
Ti 334.940†	968744.5	2142.7 µg/L	64.54	2142.7 ppb	64.54	3.01%
Tl 190.801†	-23.7	5.7010 µg/L	5.21139	5.7010 ppb	5.21139	91.41%
U 409.014†	-311.7	-35.216 µg/L	3.1128	-35.216 ppb	3.1128	8.84%
V 292.402†	11802.3	122.70 µg/L	5.571	122.70 ppb	5.571	4.54%
Zn 213.857†	7156.2	164.26 µg/L	7.610	164.26 ppb	7.610	4.63%

Sequence No.: 13

Sample ID: 1202030849|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 311

Date Collected: 2/19/2010 18:13:25

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030849|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56588.3	56588.3	100	%		18:13:58
1	Al 396.153Radial†	76806.8	76673.6	53327	µg/L	53327 ppb	18:13:58
1	Ca 317.933Radial†	13688.5	13454.8	11493	µg/L	11493 ppb	18:14:19
1	Fe 238.204 Radial†	8382.3	8352.0	65883	µg/L	65883 ppb	18:14:19
1	K 766.490 Radial†	18831.4	18635.6	12171	µg/L	12171 ppb	18:13:58
1	Mg 279.077 IEC†	1410.3	1395.2	12410	µg/L	12410 ppb	18:14:19
1	Na 589.592 Radial†	18284.4	17782.2	5461.7	µg/L	5461.7 ppb	18:13:58
1	Sr 421.552†	64415.1	64280.8	593.00	µg/L	593.00 ppb	18:13:58
1	Sc 361.383	1976656.5	1976656.5	100.69	%		18:15:23
1	Y 371.029	1378981.4	1378981.4	101.94	%		18:15:23
1	Ag 328.068†	69055.9	68984.6	519.30	µg/L	519.30 ppb	18:15:29
1	As 188.979†	305.8	304.2	547.32	µg/L	547.32 ppb	18:15:49
1	B 249.677†	13612.2	13134.8	501.95	µg/L	501.95 ppb	18:15:29
1	Ba 233.527†	39857.1	39601.2	951.84	µg/L	951.84 ppb	18:15:29
1	Be 313.107†	908334.2	904969.4	535.99	µg/L	535.99 ppb	18:15:23
1	Cd 226.502†	21231.9	21228.2	522.59	µg/L	522.59 ppb	18:15:29
1	Co 228.616†	12340.0	12253.6	549.34	µg/L	549.34 ppb	18:15:29
1	Cr 267.716†	30781.9	30621.4	615.43	µg/L	615.43 ppb	18:15:29
1	Cu 324.752†	92751.2	89572.3	593.84	µg/L	593.84 ppb	18:15:29
1	Mn 257.610†	748339.3	743470.5	2336.5	µg/L	2336.5 ppb	18:15:23
1	Mo 202.031†	5419.8	5388.0	530.13	µg/L	530.13 ppb	18:15:49
1	Ni 231.604†	12028.7	11634.0	580.15	µg/L	580.15 ppb	18:15:29
1	P 214.914†	540.1	521.0	939.85	µg/L	939.85 ppb	18:15:49
1	Pb 220.353†	2622.0	2513.1	611.34	µg/L	611.34 ppb	18:15:49
1	S 181.975 Axial†	1420.0	1391.3	5769.8	µg/L	5769.8 ppb	18:15:49
1	Sb 206.836†	593.7	567.1	521.29	µg/L	521.29 ppb	18:15:49
1	Se 196.026†	366.5	344.7	649.82	µg/L	649.82 ppb	18:15:49
1	SiO2†	158655.5	156177.4	30827	µg/L	30827 ppb	18:15:29
1	Si 251.611†	192178.4	190551.6	14486	µg/L	14486 ppb	18:15:23
1	Sn 189.927†	1316.8	1307.4	545.74	µg/L	545.74 ppb	18:15:49
1	Ti 334.940†	1326142.7	1316885.9	2912.4	µg/L	2912.4 ppb	18:15:23
1	Tl 190.801†	353.9	373.8	531.82	µg/L	531.82 ppb	18:15:49
1	U 409.014†	6018.7	6054.6	493.18	µg/L	493.18 ppb	18:15:29
1	V 292.402†	64710.6	64312.2	640.50	µg/L	640.50 ppb	18:15:29
1	Zn 213.857†	30105.4	29364.8	681.60	µg/L	681.60 ppb	18:15:29
2	Sc RADIAL	56723.5	56723.5	100	%		18:14:24
2	Al 396.153Radial†	77608.6	77289.5	53756	µg/L	53756 ppb	18:14:24
2	Ca 317.933Radial†	13789.7	13523.0	11551	µg/L	11551 ppb	18:14:45
2	Fe 238.204 Radial†	8443.3	8392.8	66205	µg/L	66205 ppb	18:14:45
2	K 766.490 Radial†	19019.1	18777.7	12264	µg/L	12264 ppb	18:14:24
2	Mg 279.077 IEC†	1425.2	1406.6	12512	µg/L	12512 ppb	18:14:45
2	Na 589.592 Radial†	18412.8	17866.6	5487.6	µg/L	5487.6 ppb	18:14:24
2	Sr 421.552†	64985.6	64695.7	596.83	µg/L	596.83 ppb	18:14:24
2	Sc 361.383	1982946.5	1982946.5	101.01	%		18:15:57
2	Y 371.029	1382091.1	1382091.1	102.17	%		18:15:57
2	Ag 328.068†	68882.9	68595.8	516.41	µg/L	516.41 ppb	18:16:02
2	As 188.979†	306.2	303.6	546.33	µg/L	546.33 ppb	18:16:23
2	B 249.677†	13619.4	13099.1	500.32	µg/L	500.32 ppb	18:16:02
2	Ba 233.527†	39592.1	39213.3	942.52	µg/L	942.52 ppb	18:16:02
2	Be 313.107†	912129.2	905864.9	536.52	µg/L	536.52 ppb	18:15:57
2	Cd 226.502†	21070.9	21001.9	516.90	µg/L	516.90 ppb	18:16:02
2	Co 228.616†	12235.5	12111.3	542.87	µg/L	542.87 ppb	18:16:02
2	Cr 267.716†	30681.9	30425.5	611.50	µg/L	611.50 ppb	18:16:02
2	Cu 324.752†	92519.1	89050.3	590.48	µg/L	590.48 ppb	18:16:02
2	Mn 257.610†	751973.0	744710.3	2340.4	µg/L	2340.4 ppb	18:15:57
2	Mo 202.031†	5352.4	5304.2	521.94	µg/L	521.94 ppb	18:16:23
2	Ni 231.604†	11934.3	11502.6	573.61	µg/L	573.61 ppb	18:16:02
2	P 214.914†	542.0	521.3	940.42	µg/L	940.42 ppb	18:16:23
2	Pb 220.353†	2600.2	2483.3	604.09	µg/L	604.09 ppb	18:16:23

2	S 181.975 Axial†	1411.7	1378.7	5717.3 µg/L	5717.3 ppb	18:16:23
2	Sb 206.836†	592.2	563.8	518.17 µg/L	518.17 ppb	18:16:23
2	Se 196.026†	373.1	350.1	658.18 µg/L	658.18 ppb	18:16:23
2	SiO2†	156797.0	153837.7	30366 µg/L	30366 ppb	18:16:02
2	Si 251.611†	192282.0	190048.9	14448 µg/L	14448 ppb	18:15:57
2	Sn 189.927†	1293.4	1280.1	534.22 µg/L	534.22 ppb	18:16:23
2	Ti 334.940†	1333792.1	1320281.1	2919.9 µg/L	2919.9 ppb	18:15:57
2	Tl 190.801†	359.2	378.0	537.43 µg/L	537.43 ppb	18:16:23
2	U 409.014†	6102.2	6118.3	498.43 µg/L	498.43 ppb	18:16:02
2	V 292.402†	64478.1	63878.1	636.24 µg/L	636.24 ppb	18:16:02
2	Zn 213.857†	29958.2	29124.2	675.97 µg/L	675.97 ppb	18:16:02
3	Sc RADIAL	56942.9	56942.9	101 %		18:14:50
3	Al 396.153Radial†	77740.6	77122.5	53641 µg/L	53641 ppb	18:14:50
3	Ca 317.933Radial†	13721.2	13402.2	11448 µg/L	11448 ppb	18:15:11
3	Fe 238.204 Radial†	8400.6	8318.0	65615 µg/L	65615 ppb	18:15:11
3	K 766.490 Radial†	19090.5	18775.5	12263 µg/L	12263 ppb	18:14:50
3	Mg 279.077 IEC†	1421.4	1397.4	12429 µg/L	12429 ppb	18:15:11
3	Na 589.592 Radial†	18458.7	17841.5	5479.9 µg/L	5479.9 ppb	18:14:50
3	Sr 421.552†	65163.8	64623.1	596.16 µg/L	596.16 ppb	18:14:50
3	Sc 361.383	1985215.9	1985215.9	101.13 %		18:16:30
3	Y 371.029	1383220.0	1383220.0	102.25 %		18:16:30
3	Ag 328.068†	67041.3	66696.7	502.06 µg/L	502.06 ppb	18:16:36
3	As 188.979†	274.2	271.6	489.08 µg/L	489.08 ppb	18:16:56
3	B 249.677†	13151.9	12621.3	481.09 µg/L	481.09 ppb	18:16:36
3	Ba 233.527†	37758.1	37355.0	897.84 µg/L	897.84 ppb	18:16:36
3	Be 313.107†	871944.5	865095.1	512.38 µg/L	512.38 ppb	18:16:30
3	Cd 226.502†	20238.0	20154.4	495.80 µg/L	495.80 ppb	18:16:36
3	Co 228.616†	11653.1	11521.4	516.40 µg/L	516.40 ppb	18:16:36
3	Cr 267.716†	28707.8	28438.7	571.57 µg/L	571.57 ppb	18:16:36
3	Cu 324.752†	87545.5	84027.4	557.61 µg/L	557.61 ppb	18:16:36
3	Mn 257.610†	719876.0	712119.6	2238.2 µg/L	2238.2 ppb	18:16:30
3	Mo 202.031†	4835.2	4786.7	471.24 µg/L	471.24 ppb	18:16:56
3	Ni 231.604†	11287.5	10849.5	541.07 µg/L	541.07 ppb	18:16:36
3	P 214.914†	495.1	474.2	850.42 µg/L	850.42 ppb	18:16:56
3	Pb 220.353†	2426.2	2308.2	561.50 µg/L	561.50 ppb	18:16:56
3	S 181.975 Axial†	1304.9	1271.5	5272.8 µg/L	5272.8 ppb	18:16:56
3	Sb 206.836†	545.0	516.5	474.31 µg/L	474.31 ppb	18:16:56
3	Se 196.026†	349.0	325.8	622.57 µg/L	622.57 ppb	18:16:56
3	SiO2†	146162.1	143143.7	28255 µg/L	28255 ppb	18:16:36
3	Si 251.611†	182273.6	179934.2	13679 µg/L	13679 ppb	18:16:30
3	Sn 189.927†	1172.0	1158.6	483.02 µg/L	483.02 ppb	18:16:56
3	Ti 334.940†	1271629.6	1257300.9	2780.6 µg/L	2780.6 ppb	18:16:30
3	Tl 190.801†	330.7	349.4	498.55 µg/L	498.55 ppb	18:16:56
3	U 409.014†	5586.7	5601.6	455.59 µg/L	455.59 ppb	18:16:36
3	V 292.402†	60660.5	60030.1	598.14 µg/L	598.14 ppb	18:16:36
3	Zn 213.857†	28605.1	27752.3	644.01 µg/L	644.01 ppb	18:16:36

Mean Data: 1202030849|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1981606.3	100.94 %	0.226			0.22%
Sc RADIAL	56751.6	100 %	0.3			0.32%
Y 371.029	1381430.9	102.12 %	0.162			0.16%
Ag 328.068†	68092.4	512.59 µg/L	9.233	512.59 ppb	9.233	1.80%
Al 396.153Radial†	77028.6	53575 µg/L	221.8	53575 ppb	221.8	0.41%
As 188.979†	293.1	527.58 µg/L	33.343	527.58 ppb	33.343	6.32%
B 249.677†	12951.7	494.45 µg/L	11.600	494.45 ppb	11.600	2.35%
Ba 233.527†	38723.2	930.74 µg/L	28.866	930.74 ppb	28.866	3.10%
Be 313.107†	891976.5	528.30 µg/L	13.789	528.30 ppb	13.789	2.61%
Ca 317.933Radial†	13460.0	11497 µg/L	51.8	11497 ppb	51.8	0.45%
Cd 226.502†	20794.8	511.76 µg/L	14.115	511.76 ppb	14.115	2.76%
Co 228.616†	11962.1	536.20 µg/L	17.451	536.20 ppb	17.451	3.25%
Cr 267.716†	29828.5	599.50 µg/L	24.270	599.50 ppb	24.270	4.05%
Cu 324.752†	87550.0	580.64 µg/L	20.018	580.64 ppb	20.018	3.45%
Fe 238.204 Radial†	8354.3	65901 µg/L	295.4	65901 ppb	295.4	0.45%
K 766.490 Radial†	18729.6	12233 µg/L	53.2	12233 ppb	53.2	0.43%
Mg 279.077 IEC†	1399.7	12450 µg/L	54.1	12450 ppb	54.1	0.43%
Mn 257.610†	733433.5	2305.0 µg/L	57.87	2305.0 ppb	57.87	2.51%
Mo 202.031†	5159.6	507.77 µg/L	31.898	507.77 ppb	31.898	6.28%
Na 589.592 Radial†	17830.1	5476.4 µg/L	13.30	5476.4 ppb	13.30	0.24%

Ni 231.604†	11328.7	564.94 µg/L	20.928	564.94 ppb	20.928	3.70%
P 214.914†	505.5	910.23 µg/L	51.795	910.23 ppb	51.795	5.69%
Pb 220.353†	2434.9	592.31 µg/L	26.926	592.31 ppb	26.926	4.55%
S 181.975 Axial†	1347.2	5586.6 µg/L	273.07	5586.6 ppb	273.07	4.89%
Sb 206.836†	549.1	504.59 µg/L	26.270	504.59 ppb	26.270	5.21%
Se 196.026†	340.2	643.53 µg/L	18.620	643.53 ppb	18.620	2.89%
SiO2†	151052.9	29816 µg/L	1371.6	29816 ppb	1371.6	4.60%
Si 251.611†	186844.9	14204 µg/L	455.4	14204 ppb	455.4	3.21%
Sn 189.927†	1248.7	520.99 µg/L	33.386	520.99 ppb	33.386	6.41%
Sr 421.552†	64533.2	595.33 µg/L	2.044	595.33 ppb	2.044	0.34%
Ti 334.940†	1298156.0	2871.0 µg/L	78.36	2871.0 ppb	78.36	2.73%
Tl 190.801†	367.1	522.60 µg/L	21.019	522.60 ppb	21.019	4.02%
U 409.014†	5924.8	482.40 µg/L	23.368	482.40 ppb	23.368	4.84%
V 292.402†	62740.1	624.96 µg/L	23.322	624.96 ppb	23.322	3.73%
Zn 213.857†	28747.1	667.20 µg/L	20.273	667.20 ppb	20.273	3.04%

Sequence No.: 14

Sample ID: 1202030850|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 312

Date Collected: 2/19/2010 18:17:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030850|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56832.4	56832.4	101 %		18:17:39
1	Al 396.153Radial†	85082.0	84570.5	58821 µg/L	58821 ppb	18:17:39
1	Ca 317.933Radial†	15267.5	14965.8	12783 µg/L	12783 ppb	18:18:00
1	Fe 238.204 Radial†	9858.9	9783.9	77176 µg/L	77176 ppb	18:18:00
1	K 766.490 Radial†	20371.2	20085.6	13118 µg/L	13118 ppb	18:17:39
1	Mg 279.077 IEC†	1519.5	1497.7	13314 µg/L	13314 ppb	18:18:00
1	Na 589.592 Radial†	18311.6	17730.9	5445.9 µg/L	5445.9 ppb	18:17:39
1	Sr 421.552†	66562.4	66139.2	610.14 µg/L	610.14 ppb	18:17:39
1	Sc 361.383	2004322.9	2004322.9	102.10 %		18:19:04
1	Y 371.029	1399471.1	1399471.1	103.45 %		18:19:04
1	Ag 328.068†	68825.0	67811.7	511.40 µg/L	511.40 ppb	18:19:10
1	As 188.979†	305.3	299.5	539.62 µg/L	539.62 ppb	18:19:30
1	B 249.677†	13860.3	13191.3	498.35 µg/L	498.35 ppb	18:19:10
1	Ba 233.527†	42542.5	41685.0	1001.9 µg/L	1001.9 ppb	18:19:10
1	Be 313.107†	914795.1	898845.3	532.27 µg/L	532.27 ppb	18:19:04
1	Cd 226.502†	21259.8	20964.5	514.73 µg/L	514.73 ppb	18:19:10
1	Co 228.616†	12390.6	12133.9	543.40 µg/L	543.40 ppb	18:19:10
1	Cr 267.716†	31041.9	30454.1	612.08 µg/L	612.08 ppb	18:19:10
1	Cu 324.752†	93776.0	89304.5	593.66 µg/L	593.66 ppb	18:19:10
1	Mn 257.610†	799270.5	783095.8	2462.0 µg/L	2462.0 ppb	18:19:04
1	Mo 202.031†	5395.8	5290.2	520.98 µg/L	520.98 ppb	18:19:30
1	Ni 231.604†	12093.6	11532.6	575.25 µg/L	575.25 ppb	18:19:10
1	P 214.914†	583.9	556.6	1002.6 µg/L	1002.6 ppb	18:19:30
1	Pb 220.353†	2631.3	2486.3	604.68 µg/L	604.68 ppb	18:19:30
1	S 181.975 Axial†	1429.3	1381.0	5726.8 µg/L	5726.8 ppb	18:19:30
1	Sb 206.836†	600.6	565.7	519.76 µg/L	519.76 ppb	18:19:30
1	Se 196.026†	351.3	324.8	651.59 µg/L	651.59 ppb	18:19:30
1	SiO2†	152723.6	148192.5	29251 µg/L	29251 ppb	18:19:10
1	Si 251.611†	186499.0	182354.5	13863 µg/L	13863 ppb	18:19:04
1	Sn 189.927†	1303.0	1275.9	531.34 µg/L	531.34 ppb	18:19:30
1	Ti 334.940†	1456507.1	1426390.5	3154.6 µg/L	3154.6 ppb	18:19:04
1	Tl 190.801†	358.3	373.3	535.70 µg/L	535.70 ppb	18:19:30
1	U 409.014†	5974.7	5929.0	481.10 µg/L	481.10 ppb	18:19:10
1	V 292.402†	66940.5	65609.2	654.38 µg/L	654.38 ppb	18:19:10
1	Zn 213.857†	31600.4	30416.4	705.71 µg/L	705.71 ppb	18:19:10
2	Sc RADIAL	57176.9	57176.9	101 %		18:18:05
2	Al 396.153Radial†	85579.7	84552.6	58809 µg/L	58809 ppb	18:18:05
2	Ca 317.933Radial†	15126.8	14735.3	12587 µg/L	12587 ppb	18:18:26
2	Fe 238.204 Radial†	9781.1	9648.0	76104 µg/L	76104 ppb	18:18:26
2	K 766.490 Radial†	20513.6	20104.2	13130 µg/L	13130 ppb	18:18:05
2	Mg 279.077 IEC†	1511.5	1480.7	13163 µg/L	13163 ppb	18:18:26
2	Na 589.592 Radial†	18421.0	17729.4	5445.4 µg/L	5445.4 ppb	18:18:05
2	Sr 421.552†	67063.8	66235.9	611.04 µg/L	611.04 ppb	18:18:05
2	Sc 361.383	1997083.4	1997083.4	101.73 %		18:19:38
2	Y 371.029	1395342.7	1395342.7	103.15 %		18:19:38
2	Ag 328.068†	68063.9	67308.0	507.57 µg/L	507.57 ppb	18:19:44
2	As 188.979†	308.8	304.0	547.59 µg/L	547.59 ppb	18:20:04
2	B 249.677†	13670.3	13053.6	493.30 µg/L	493.30 ppb	18:19:44
2	Ba 233.527†	42091.7	41393.0	994.87 µg/L	994.87 ppb	18:19:44
2	Be 313.107†	912393.7	899732.7	532.79 µg/L	532.79 ppb	18:19:38
2	Cd 226.502†	20925.1	20711.0	508.52 µg/L	508.52 ppb	18:19:44
2	Co 228.616†	12236.2	12026.1	538.51 µg/L	538.51 ppb	18:19:44
2	Cr 267.716†	30693.4	30221.8	607.41 µg/L	607.41 ppb	18:19:44
2	Cu 324.752†	92891.6	88768.1	590.01 µg/L	590.01 ppb	18:19:44
2	Mn 257.610†	796387.7	783099.8	2461.9 µg/L	2461.9 ppb	18:19:38
2	Mo 202.031†	5350.4	5264.8	518.45 µg/L	518.45 ppb	18:20:04
2	Ni 231.604†	11902.5	11387.7	568.01 µg/L	568.01 ppb	18:19:44
2	P 214.914†	592.7	567.3	1025.1 µg/L	1025.1 ppb	18:20:04
2	Pb 220.353†	2620.2	2484.7	604.33 µg/L	604.33 ppb	18:20:04

2	S 181.975 Axial†	1427.1	1383.9	5738.8 µg/L	5738.8 ppb	18:20:04
2	Sb 206.836†	592.7	560.1	514.67 µg/L	514.67 ppb	18:20:04
2	Se 196.026†	358.4	333.0	660.42 µg/L	660.42 ppb	18:20:04
2	SiO2†	150653.6	146699.9	28957 µg/L	28957 ppb	18:19:44
2	Si 251.611†	185069.0	181611.0	13806 µg/L	13806 ppb	18:19:38
2	Sn 189.927†	1302.2	1279.7	533.05 µg/L	533.05 ppb	18:20:04
2	Ti 334.940†	1452407.3	1427531.7	3157.2 µg/L	3157.2 ppb	18:19:38
2	Tl 190.801†	353.9	370.3	531.68 µg/L	531.68 ppb	18:20:04
2	U 409.014†	5957.5	5933.3	481.62 µg/L	481.62 ppb	18:19:44
2	V 292.402†	66135.1	65055.1	648.82 µg/L	648.82 ppb	18:19:44
2	Zn 213.857†	31260.1	30194.1	700.59 µg/L	700.59 ppb	18:19:44
3	Sc RADIAL	57721.1	57721.1	102 %		18:18:31
3	Al 396.153Radial†	85860.6	84030.3	58446 µg/L	58446 ppb	18:18:31
3	Ca 317.933Radial†	15255.1	14719.9	12573 µg/L	12573 ppb	18:18:52
3	Fe 238.204 Radial†	9831.5	9606.2	75774 µg/L	75774 ppb	18:18:52
3	K 766.490 Radial†	20621.2	20018.4	13074 µg/L	13074 ppb	18:18:31
3	Mg 279.077 IEC†	1521.4	1476.3	13123 µg/L	13123 ppb	18:18:52
3	Na 589.592 Radial†	18487.6	17622.9	5412.8 µg/L	5412.8 ppb	18:18:31
3	Sr 421.552†	67269.0	65811.9	607.12 µg/L	607.12 ppb	18:18:31
3	Sc 361.383	1987921.5	1987921.5	101.26 %		18:20:11
3	Y 371.029	1387227.9	1387227.9	102.55 %		18:20:11
3	Ag 328.068†	66918.3	66485.0	501.26 µg/L	501.26 ppb	18:20:17
3	As 188.979†	278.5	275.5	496.54 µg/L	496.54 ppb	18:20:37
3	B 249.677†	13319.4	12769.1	481.83 µg/L	481.83 ppb	18:20:17
3	Ba 233.527†	40418.2	39931.0	959.72 µg/L	959.72 ppb	18:20:17
3	Be 313.107†	874464.5	866410.2	513.06 µg/L	513.06 ppb	18:20:11
3	Cd 226.502†	20370.3	20257.8	497.23 µg/L	497.23 ppb	18:20:17
3	Co 228.616†	11696.0	11548.1	517.08 µg/L	517.08 ppb	18:20:17
3	Cr 267.716†	29104.9	28792.2	578.68 µg/L	578.68 ppb	18:20:17
3	Cu 324.752†	88707.4	85056.9	565.74 µg/L	565.74 ppb	18:20:17
3	Mn 257.610†	766365.5	757060.2	2380.3 µg/L	2380.3 ppb	18:20:11
3	Mo 202.031†	4864.8	4809.5	473.85 µg/L	473.85 ppb	18:20:37
3	Ni 231.604†	11332.0	10878.3	542.64 µg/L	542.64 ppb	18:20:17
3	P 214.914†	542.8	520.7	934.94 µg/L	934.94 ppb	18:20:37
3	Pb 220.353†	2445.4	2323.9	565.18 µg/L	565.18 ppb	18:20:37
3	S 181.975 Axial†	1345.3	1309.6	5430.7 µg/L	5430.7 ppb	18:20:37
3	Sb 206.836†	543.4	514.2	472.07 µg/L	472.07 ppb	18:20:37
3	Se 196.026†	337.4	313.9	632.68 µg/L	632.68 ppb	18:20:37
3	SiO2†	141747.5	138587.4	27355 µg/L	27355 ppb	18:20:17
3	Si 251.611†	176602.5	174088.5	13235 µg/L	13235 ppb	18:20:11
3	Sn 189.927†	1185.3	1170.1	486.86 µg/L	486.86 ppb	18:20:37
3	Ti 334.940†	1388508.7	1371010.4	3032.1 µg/L	3032.1 ppb	18:20:11
3	Tl 190.801†	333.2	351.4	505.76 µg/L	505.76 ppb	18:20:37
3	U 409.014†	5655.7	5662.2	459.14 µg/L	459.14 ppb	18:20:17
3	V 292.402†	62884.3	62144.5	619.98 µg/L	619.98 ppb	18:20:17
3	Zn 213.857†	30038.8	29129.6	675.79 µg/L	675.79 ppb	18:20:17

Mean Data: 1202030850|954751|1

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Sc 361.383	1996442.6	101.70 %	0.419			0.41%
Sc RADIAL	57243.5	101 %	0.8			0.78%
Y 371.029	1394013.9	103.05 %	0.460			0.45%
Ag 328.068†	67201.6	506.74 µg/L	5.119	506.74 ppb	5.119	1.01%
Al 396.153Radial†	84384.5	58692 µg/L	212.9	58692 ppb	212.9	0.36%
As 188.979†	293.0	527.92 µg/L	27.462	527.92 ppb	27.462	5.20%
B 249.677†	13004.7	491.16 µg/L	8.469	491.16 ppb	8.469	1.72%
Ba 233.527†	41003.0	985.50 µg/L	22.594	985.50 ppb	22.594	2.29%
Be 313.107†	888329.4	526.04 µg/L	11.242	526.04 ppb	11.242	2.14%
Ca 317.933Radial†	14807.0	12648 µg/L	117.6	12648 ppb	117.6	0.93%
Cd 226.502†	20644.4	506.83 µg/L	8.871	506.83 ppb	8.871	1.75%
Co 228.616†	11902.7	533.00 µg/L	13.998	533.00 ppb	13.998	2.63%
Cr 267.716†	29822.7	599.39 µg/L	18.088	599.39 ppb	18.088	3.02%
Cu 324.752†	87709.8	583.14 µg/L	15.177	583.14 ppb	15.177	2.60%
Fe 238.204 Radial†	9679.4	76352 µg/L	733.1	76352 ppb	733.1	0.96%
K 766.490 Radial†	20069.4	13108 µg/L	29.5	13108 ppb	29.5	0.22%
Mg 279.077 IEC†	1484.9	13200 µg/L	100.7	13200 ppb	100.7	0.76%
Mn 257.610†	774418.6	2434.7 µg/L	47.14	2434.7 ppb	47.14	1.94%
Mo 202.031†	5121.5	504.43 µg/L	26.509	504.43 ppb	26.509	5.26%
Na 589.592 Radial†	17694.4	5434.7 µg/L	19.01	5434.7 ppb	19.01	0.35%

Ni 231.604†	11266.2	561.97 µg/L	17.124	561.97 ppb	17.124	3.05%
P 214.914†	548.2	987.57 µg/L	46.954	987.57 ppb	46.954	4.75%
Pb 220.353†	2431.6	591.40 µg/L	22.703	591.40 ppb	22.703	3.84%
S 181.975 Axial†	1358.1	5632.1 µg/L	174.54	5632.1 ppb	174.54	3.10%
Sb 206.836†	546.7	502.17 µg/L	26.192	502.17 ppb	26.192	5.22%
Se 196.026†	323.9	648.23 µg/L	14.170	648.23 ppb	14.170	2.19%
SiO2†	144493.3	28521 µg/L	1020.2	28521 ppb	1020.2	3.58%
Si 251.611†	179351.3	13635 µg/L	347.6	13635 ppb	347.6	2.55%
Sn 189.927†	1241.9	517.08 µg/L	26.189	517.08 ppb	26.189	5.06%
Sr 421.552†	66062.3	609.43 µg/L	2.049	609.43 ppb	2.049	0.34%
Ti 334.940†	1408310.9	3114.6 µg/L	71.47	3114.6 ppb	71.47	2.29%
Tl 190.801†	365.0	524.38 µg/L	16.253	524.38 ppb	16.253	3.10%
U 409.014†	5841.5	473.95 µg/L	12.828	473.95 ppb	12.828	2.71%
V 292.402†	64269.6	641.06 µg/L	18.463	641.06 ppb	18.463	2.88%
Zn 213.857†	29913.3	694.03 µg/L	16.005	694.03 ppb	16.005	2.31%



Sequence No.: 15

Sample ID: 1202030848|954751|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 313

Date Collected: 2/19/2010 18:20:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030848|954751|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56362.8	56362.8	99.8 %		18:21:20
1	Al 396.153Radial†	8689.1	8702.2	6053.7 µg/L	6053.7 ppb	18:21:20
1	Ca 317.933Radial†	2073.3	1866.9	1594.7 µg/L	1594.7 ppb	18:21:41
1	Fe 238.204 Radial†	1673.3	1660.7	13098 µg/L	13098 ppb	18:21:41
1	K 766.490 Radial†	2285.8	2126.2	1388.7 µg/L	1388.7 ppb	18:21:20
1	Mg 279.077 IEC†	162.0	149.5	1322.6 µg/L	1322.6 ppb	18:21:41
1	Na 589.592 Radial†	749.0	278.6	85.568 µg/L	85.568 ppb	18:21:20
1	Sr 421.552†	2178.1	2154.4	19.875 µg/L	19.875 ppb	18:21:20
1	Sc 361.383	2009727.0	2009727.0	102.37 %		18:22:43
1	Y 371.029	1387092.6	1387092.6	102.54 %		18:22:43
1	Ag 328.068†	-538.7	-124.6	0.0581 µg/L	0.0581 ppb	18:22:48
1	As 188.979†	-2.4	-1.9	-2.7730 µg/L	-2.7730 ppb	18:23:09
1	B 249.677†	487.6	92.1	-3.0528 µg/L	-3.0528 ppb	18:22:48
1	Ba 233.527†	3844.9	3772.8	90.616 µg/L	90.616 ppb	18:22:48
1	Be 313.107†	-866.3	2009.5	1.0193 µg/L	1.0193 ppb	18:22:48
1	Cd 226.502†	-85.1	58.5	-0.0094 µg/L	-0.0094 ppb	18:23:09
1	Co 228.616†	171.7	165.8	6.5595 µg/L	6.5595 ppb	18:23:09
1	Cr 267.716†	830.9	862.0	17.328 µg/L	17.328 ppb	18:22:48
1	Cu 324.752†	4528.1	1879.3	14.088 µg/L	14.088 ppb	18:22:48
1	Mn 257.610†	126861.3	124175.3	390.55 µg/L	390.55 ppb	18:22:48
1	Mo 202.031†	4.8	10.1	1.4835 µg/L	1.4835 ppb	18:23:09
1	Ni 231.604†	532.3	207.6	10.510 µg/L	10.510 ppb	18:23:09
1	P 214.914†	2.9	-12.5	53.767 µg/L	53.767 ppb	18:23:09
1	Pb 220.353†	168.2	73.4	17.667 µg/L	17.667 ppb	18:23:09
1	S 181.975 Axial†	37.7	17.9	74.297 µg/L	74.297 ppb	18:23:09
1	Sb 206.836†	4.9	-17.7	-16.536 µg/L	-16.536 ppb	18:23:09
1	Se 196.026†	11.6	-8.0	22.979 µg/L	22.979 ppb	18:23:09
1	SiO2†	25895.4	23903.3	4718.2 µg/L	4718.2 ppb	18:22:48
1	Si 251.611†	29963.9	28958.4	2201.5 µg/L	2201.5 ppb	18:22:48
1	Sn 189.927†	14551.6	14213.7	5992.9 µg/L	5992.9 ppb	18:22:48
1	Ti 334.940†	210724.8	205662.9	454.89 µg/L	454.89 ppb	18:22:43
1	Tl 190.801†	-26.5	-3.5	3.1588 µg/L	3.1588 ppb	18:23:09
1	U 409.014†	-192.1	-110.6	-11.104 µg/L	-11.104 ppb	18:22:48
1	V 292.402†	2435.0	2423.3	25.195 µg/L	25.195 ppb	18:22:48
1	Zn 213.857†	2093.0	1510.0	34.664 µg/L	34.664 ppb	18:23:09
2	Sc RADIAL	56404.2	56404.2	99.8 %		18:21:46
2	Al 396.153Radial†	8692.0	8698.7	6051.3 µg/L	6051.3 ppb	18:21:46
2	Ca 317.933Radial†	2078.5	1870.6	1597.8 µg/L	1597.8 ppb	18:22:06
2	Fe 238.204 Radial†	1676.4	1662.6	13113 µg/L	13113 ppb	18:22:06
2	K 766.490 Radial†	2375.5	2214.4	1446.3 µg/L	1446.3 ppb	18:21:46
2	Mg 279.077 IEC†	164.0	151.4	1339.6 µg/L	1339.6 ppb	18:22:06
2	Na 589.592 Radial†	738.2	267.2	82.059 µg/L	82.059 ppb	18:21:46
2	Sr 421.552†	2129.9	2104.6	19.415 µg/L	19.415 ppb	18:21:46
2	Sc 361.383	1996058.5	1996058.5	101.68 %		18:23:15
2	Y 371.029	1376505.0	1376505.0	101.76 %		18:23:15
2	Ag 328.068†	-578.1	-167.0	-0.2505 µg/L	-0.2505 ppb	18:23:21
2	As 188.979†	-0.4	0.1	0.8744 µg/L	0.8744 ppb	18:23:42
2	B 249.677†	501.8	109.4	-2.3543 µg/L	-2.3543 ppb	18:23:21
2	Ba 233.527†	3857.4	3810.8	91.531 µg/L	91.531 ppb	18:23:21
2	Be 313.107†	-769.3	2099.0	1.0718 µg/L	1.0718 ppb	18:23:21
2	Cd 226.502†	-93.8	49.4	-0.2396 µg/L	-0.2396 ppb	18:23:42
2	Co 228.616†	167.1	162.4	6.4012 µg/L	6.4012 ppb	18:23:42
2	Cr 267.716†	846.6	883.0	17.751 µg/L	17.751 ppb	18:23:21
2	Cu 324.752†	4507.5	1889.4	14.156 µg/L	14.156 ppb	18:23:21
2	Mn 257.610†	127477.8	125630.2	395.10 µg/L	395.10 ppb	18:23:21
2	Mo 202.031†	9.1	14.3	1.8971 µg/L	1.8971 ppb	18:23:42
2	Ni 231.604†	517.0	196.1	9.9389 µg/L	9.9389 ppb	18:23:42
2	P 214.914†	0.9	-14.5	50.839 µg/L	50.839 ppb	18:23:42
2	Pb 220.353†	165.1	71.4	17.171 µg/L	17.171 ppb	18:23:42

2	S 181.975 Axial†	40.1	20.5	84.836 µg/L	84.836 ppb	18:23:42
2	Sb 206.836†	5.2	-17.4	-16.268 µg/L	-16.268 ppb	18:23:42
2	Se 196.026†	23.2	3.5	39.114 µg/L	39.114 ppb	18:23:42
2	SiO2†	26617.4	24786.6	4892.5 µg/L	4892.5 ppb	18:23:21
2	Si 251.611†	30742.4	29924.4	2274.9 µg/L	2274.9 ppb	18:23:21
2	Sn 189.927†	14600.8	14359.5	6054.4 µg/L	6054.4 ppb	18:23:21
2	Ti 334.940†	210054.0	206412.7	456.55 µg/L	456.55 ppb	18:23:15
2	Tl 190.801†	-25.5	-2.7	4.2686 µg/L	4.2686 ppb	18:23:42
2	U 409.014†	-70.3	8.0	-1.2593 µg/L	-1.2593 ppb	18:23:21
2	V 292.402†	2491.0	2494.7	25.907 µg/L	25.907 ppb	18:23:21
2	Zn 213.857†	2074.8	1506.1	34.573 µg/L	34.573 ppb	18:23:42
3	Sc RADIAL	56630.4	56630.4	100 %		18:22:12
3	Al 396.153Radial†	8807.2	8778.9	6107.0 µg/L	6107.0 ppb	18:22:12
3	Ca 317.933Radial†	2076.8	1860.6	1589.3 µg/L	1589.3 ppb	18:22:32
3	Fe 238.204 Radial†	1674.7	1654.1	13046 µg/L	13046 ppb	18:22:32
3	K 766.490 Radial†	2362.1	2191.5	1431.3 µg/L	1431.3 ppb	18:22:12
3	Mg 279.077 IEC†	163.8	150.6	1332.4 µg/L	1332.4 ppb	18:22:32
3	Na 589.592 Radial†	780.4	306.3	94.093 µg/L	94.093 ppb	18:22:12
3	Sr 421.552†	2169.2	2135.2	19.697 µg/L	19.697 ppb	18:22:12
3	Sc 361.383	2012716.1	2012716.1	102.53 %		18:23:48
3	Y 371.029	1387525.2	1387525.2	102.57 %		18:23:48
3	Ag 328.068†	-539.3	-124.4	0.0419 µg/L	0.0419 ppb	18:23:54
3	As 188.979†	-1.5	-1.0	-1.0676 µg/L	-1.0676 ppb	18:24:14
3	B 249.677†	503.5	106.9	-2.4253 µg/L	-2.4253 ppb	18:23:54
3	Ba 233.527†	3471.7	3403.2	81.740 µg/L	81.740 ppb	18:23:54
3	Be 313.107†	-1040.3	1841.0	0.9319 µg/L	0.9319 ppb	18:23:54
3	Cd 226.502†	-101.9	42.3	-0.4099 µg/L	-0.4099 ppb	18:24:14
3	Co 228.616†	137.9	132.5	5.1231 µg/L	5.1231 ppb	18:24:14
3	Cr 267.716†	738.0	770.2	15.483 µg/L	15.483 ppb	18:23:54
3	Cu 324.752†	4309.5	1659.6	12.646 µg/L	12.646 ppb	18:23:54
3	Mn 257.610†	113534.6	110993.0	349.26 µg/L	349.26 ppb	18:23:54
3	Mo 202.031†	10.5	15.6	2.0233 µg/L	2.0233 ppb	18:24:14
3	Ni 231.604†	498.9	174.3	8.8516 µg/L	8.8516 ppb	18:24:14
3	P 214.914†	7.0	-8.5	51.808 µg/L	51.808 ppb	18:24:14
3	Pb 220.353†	156.8	62.0	14.896 µg/L	14.896 ppb	18:24:14
3	S 181.975 Axial†	35.6	15.8	65.511 µg/L	65.511 ppb	18:24:14
3	Sb 206.836†	7.0	-15.7	-14.662 µg/L	-14.662 ppb	18:24:14
3	Se 196.026†	10.1	-9.4	20.797 µg/L	20.797 ppb	18:24:14
3	SiO2†	23794.4	21816.5	4306.3 µg/L	4306.3 ppb	18:23:54
3	Si 251.611†	27299.7	26316.4	2000.6 µg/L	2000.6 ppb	18:23:54
3	Sn 189.927†	12919.5	12600.8	5312.7 µg/L	5312.7 ppb	18:23:54
3	Ti 334.940†	195755.2	190756.5	421.91 µg/L	421.91 ppb	18:23:48
3	Tl 190.801†	-32.4	-9.2	-4.7274 µg/L	-4.7274 ppb	18:24:14
3	U 409.014†	-145.9	-65.2	-7.3251 µg/L	-7.3251 ppb	18:23:54
3	V 292.402†	2210.2	2200.5	23.022 µg/L	23.022 ppb	18:23:54
3	Zn 213.857†	1793.5	1214.9	27.750 µg/L	27.750 ppb	18:24:14

Mean Data: 1202030848|954751|5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2006167.2	102.19 %	0.452			0.44%
Sc RADIAL	56465.8	99.9 %	0.25			0.26%
Y 371.029	1383707.6	102.29 %	0.461			0.45%
Ag 328.068†	-138.7	-0.0502 µg/L	0.17367	-0.0502 ppb	0.17367	346.07%
Al 396.153Radial†	8726.6	6070.7 µg/L	31.53	6070.7 ppb	31.53	0.52%
As 188.979†	-0.9	-0.9887 µg/L	1.82495	-0.9887 ppb	1.82495	184.57%
B 249.677†	102.8	-2.6108 µg/L	0.38445	-2.6108 ppb	0.38445	14.73%
Ba 233.527†	3662.3	87.962 µg/L	5.4084	87.962 ppb	5.4084	6.15%
Be 313.107†	1983.2	1.0077 µg/L	0.07070	1.0077 ppb	0.07070	7.02%
Ca 317.933Radial†	1866.0	1593.9 µg/L	4.28	1593.9 ppb	4.28	0.27%
Cd 226.502†	50.1	-0.2196 µg/L	0.20099	-0.2196 ppb	0.20099	91.51%
Co 228.616†	153.6	6.0279 µg/L	0.78761	6.0279 ppb	0.78761	13.07%
Cr 267.716†	838.4	16.854 µg/L	1.2060	16.854 ppb	1.2060	7.16%
Cu 324.752†	1809.4	13.630 µg/L	0.8525	13.630 ppb	0.8525	6.25%
Fe 238.204 Radial†	1659.1	13085 µg/L	35.1	13085 ppb	35.1	0.27%
K 766.490 Radial†	2177.4	1422.1 µg/L	29.90	1422.1 ppb	29.90	2.10%
Mg 279.077 IEC†	150.5	1331.5 µg/L	8.53	1331.5 ppb	8.53	0.64%
Mn 257.610†	120266.1	378.30 µg/L	25.256	378.30 ppb	25.256	6.68%
Mo 202.031†	13.3	1.8013 µg/L	0.28232	1.8013 ppb	0.28232	15.67%
Na 589.592 Radial†	284.0	87.240 µg/L	6.1888	87.240 ppb	6.1888	7.09%

Ni 231.604†	192.7	9.7668 µg/L	0.84240	9.7668 ppb	0.84240	8.63%
P 214.914†	-11.9	52.138 µg/L	1.4916	52.138 ppb	1.4916	2.86%
Pb 220.353†	68.9	16.578 µg/L	1.4779	16.578 ppb	1.4779	8.91%
S 181.975 Axial†	18.1	74.881 µg/L	9.6759	74.881 ppb	9.6759	12.92%
Sb 206.836†	-16.9	-15.822 µg/L	1.0138	-15.822 ppb	1.0138	6.41%
Se 196.026†	-4.6	27.630 µg/L	10.0051	27.630 ppb	10.0051	36.21%
SiO2†	23502.1	4639.0 µg/L	301.04	4639.0 ppb	301.04	6.49%
Si 251.611†	28399.7	2159.0 µg/L	141.99	2159.0 ppb	141.99	6.58%
Sn 189.927†	13724.7	5786.7 µg/L	411.61	5786.7 ppb	411.61	7.11%
Sr 421.552†	2131.4	19.662 µg/L	0.2319	19.662 ppb	0.2319	1.18%
Ti 334.940†	200944.0	444.45 µg/L	19.535	444.45 ppb	19.535	4.40%
Tl 190.801†	-5.1	0.9000 µg/L	4.90501	0.9000 ppb	4.90501	544.99%
U 409.014†	-55.9	-6.5629 µg/L	4.96657	-6.5629 ppb	4.96657	75.68%
V 292.402†	2372.8	24.708 µg/L	1.5029	24.708 ppb	1.5029	6.08%
Zn 213.857†	1410.3	32.329 µg/L	3.9656	32.329 ppb	3.9656	12.27%

Sequence No.: 16

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/19/2010 18:24:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58110.7	58110.7	103 %		18:24:59
1	Al 396.153Radial†	7350.7	7139.0	4955.6 µg/L	4955.6 ppb	18:24:59
1	Ca 317.933Radial†	6185.2	5802.1	4956.0 µg/L	4956.0 ppb	18:25:20
1	Fe 238.204 Radial†	675.1	639.8	5056.7 µg/L	5056.7 ppb	18:25:20
1	K 766.490 Radial†	7936.4	7550.9	4931.6 µg/L	4931.6 ppb	18:24:59
1	Mg 279.077 IEC†	594.2	564.9	5052.6 µg/L	5052.6 ppb	18:25:20
1	Na 589.592 Radial†	33978.9	32562.3	10001 µg/L	10001 ppb	18:24:59
1	Sr 421.552†	54344.8	52805.6	487.14 µg/L	487.14 ppb	18:24:59
1	Sc 361.383	2010503.2	2010503.2	102.41 %		18:26:23
1	Y 371.029	1378737.8	1378737.8	101.92 %		18:26:23
1	Ag 328.068†	69160.3	67932.0	506.90 µg/L	506.90 ppb	18:26:28
1	As 188.979†	303.0	296.3	530.04 µg/L	530.04 ppb	18:26:49
1	B 249.677†	13059.0	12367.1	502.24 µg/L	502.24 ppb	18:26:28
1	Ba 233.527†	21831.0	21333.5	513.08 µg/L	513.08 ppb	18:26:28
1	Be 313.107†	864886.0	847358.1	502.72 µg/L	502.72 ppb	18:26:23
1	Cd 226.502†	21036.3	20682.2	515.78 µg/L	515.78 ppb	18:26:28
1	Co 228.616†	11703.6	11425.8	516.87 µg/L	516.87 ppb	18:26:28
1	Cr 267.716†	26284.2	25715.1	516.82 µg/L	516.82 ppb	18:26:28
1	Cu 324.752†	82127.8	77648.4	507.55 µg/L	507.55 ppb	18:26:28
1	Mn 257.610†	166823.1	163147.4	511.37 µg/L	511.37 ppb	18:26:23
1	Mo 202.031†	5448.5	5325.4	521.69 µg/L	521.69 ppb	18:26:49
1	Ni 231.604†	10977.7	10406.6	518.22 µg/L	518.22 ppb	18:26:28
1	P 214.914†	1361.9	1314.4	2554.1 µg/L	2554.1 ppb	18:26:49
1	Pb 220.353†	2277.9	2133.2	518.76 µg/L	518.76 ppb	18:26:49
1	S 181.975 Axial†	276.1	250.7	1039.6 µg/L	1039.6 ppb	18:26:49
1	Sb 206.836†	598.0	561.4	517.60 µg/L	517.60 ppb	18:26:49
1	Se 196.026†	404.7	375.8	535.75 µg/L	535.75 ppb	18:26:49
1	SiO2†	29945.4	27848.1	5496.8 µg/L	5496.8 ppb	18:26:28
1	Si 251.611†	34979.9	33844.9	2573.0 µg/L	2573.0 ppb	18:26:28
1	Sn 189.927†	1294.8	1263.9	533.06 µg/L	533.06 ppb	18:26:49
1	Ti 334.940†	232405.2	226752.9	501.31 µg/L	501.31 ppb	18:26:23
1	Tl 190.801†	387.3	400.5	526.22 µg/L	526.22 ppb	18:26:49
1	U 409.014†	6254.1	6183.8	512.77 µg/L	512.77 ppb	18:26:28
1	V 292.402†	53539.0	52322.0	516.23 µg/L	516.23 ppb	18:26:28
1	Zn 213.857†	23135.9	22056.3	513.84 µg/L	513.84 ppb	18:26:28
2	Sc RADIAL	57983.0	57983.0	103 %		18:25:25
2	Al 396.153Radial†	7301.1	7106.5	4933.3 µg/L	4933.3 ppb	18:25:25
2	Ca 317.933Radial†	6156.7	5787.5	4943.6 µg/L	4943.6 ppb	18:25:45
2	Fe 238.204 Radial†	670.2	636.5	5030.5 µg/L	5030.5 ppb	18:25:45
2	K 766.490 Radial†	7863.7	7497.0	4896.4 µg/L	4896.4 ppb	18:25:25
2	Mg 279.077 IEC†	585.6	557.7	4988.7 µg/L	4988.7 ppb	18:25:45
2	Na 589.592 Radial†	33805.3	32465.9	9971.7 µg/L	9971.7 ppb	18:25:25
2	Sr 421.552†	54068.8	52653.0	485.73 µg/L	485.73 ppb	18:25:25
2	Sc 361.383	2038047.8	2038047.8	103.82 %		18:26:56
2	Y 371.029	1399253.6	1399253.6	103.44 %		18:26:56
2	Ag 328.068†	68906.4	66774.7	498.26 µg/L	498.26 ppb	18:27:02
2	As 188.979†	291.3	281.1	502.79 µg/L	502.79 ppb	18:27:22
2	B 249.677†	13031.9	12168.7	494.15 µg/L	494.15 ppb	18:27:02
2	Ba 233.527†	21788.4	21004.4	505.16 µg/L	505.16 ppb	18:27:02
2	Be 313.107†	871938.9	842738.2	499.98 µg/L	499.98 ppb	18:26:56
2	Cd 226.502†	20959.6	20330.7	507.01 µg/L	507.01 ppb	18:27:02
2	Co 228.616†	11663.7	11232.9	508.13 µg/L	508.13 ppb	18:27:02
2	Cr 267.716†	26195.8	25283.1	508.13 µg/L	508.13 ppb	18:27:02
2	Cu 324.752†	81865.7	76312.2	498.82 µg/L	498.82 ppb	18:27:02
2	Mn 257.610†	168150.2	162224.2	508.48 µg/L	508.48 ppb	18:26:56
2	Mo 202.031†	5330.8	5140.1	503.54 µg/L	503.54 ppb	18:27:22
2	Ni 231.604†	10880.8	10168.4	506.35 µg/L	506.35 ppb	18:27:02
2	P 214.914†	1337.9	1273.4	2473.4 µg/L	2473.4 ppb	18:27:22
2	Pb 220.353†	2238.1	2064.9	502.11 µg/L	502.11 ppb	18:27:22

2	S 181.975 Axial†	271.4	242.5	1005.7 µg/L	1005.7 ppb	18:27:22
2	Sb 206.836†	590.8	546.6	503.85 µg/L	503.85 ppb	18:27:22
2	Se 196.026†	401.0	366.9	523.19 µg/L	523.19 ppb	18:27:22
2	SiO2†	29842.8	27354.0	5399.3 µg/L	5399.3 ppb	18:27:02
2	Si 251.611†	34939.6	33344.4	2534.9 µg/L	2534.9 ppb	18:27:02
2	Sn 189.927†	1259.4	1212.7	511.46 µg/L	511.46 ppb	18:27:22
2	Ti 334.940†	233999.5	225221.6	497.93 µg/L	497.93 ppb	18:26:56
2	Tl 190.801†	377.0	385.6	506.75 µg/L	506.75 ppb	18:27:22
2	U 409.014†	6252.8	6100.0	505.82 µg/L	505.82 ppb	18:27:02
2	V 292.402†	53301.3	51386.4	506.94 µg/L	506.94 ppb	18:27:02
2	Zn 213.857†	23074.0	21691.3	505.35 µg/L	505.35 ppb	18:27:02
3	Sc RADIAL	58101.7	58101.7	103 %		18:25:51
3	Al 396.153Radial†	7325.2	7115.3	4941.3 µg/L	4941.3 ppb	18:25:51
3	Ca 317.933Radial†	6167.8	5786.1	4942.3 µg/L	4942.3 ppb	18:26:11
3	Fe 238.204 Radial†	673.8	638.6	5046.3 µg/L	5046.3 ppb	18:26:11
3	K 766.490 Radial†	7958.4	7573.4	4946.3 µg/L	4946.3 ppb	18:25:51
3	Mg 279.077 IEC†	598.9	569.5	5092.5 µg/L	5092.5 ppb	18:26:11
3	Na 589.592 Radial†	33931.7	32521.6	9988.8 µg/L	9988.8 ppb	18:25:51
3	Sr 421.552†	54158.1	52632.2	485.54 µg/L	485.54 ppb	18:25:51
3	Sc 361.383	2006960.6	2006960.6	102.23 %		18:27:29
3	Y 371.029	1377064.8	1377064.8	101.80 %		18:27:29
3	Ag 328.068†	63249.3	62269.2	464.47 µg/L	464.47 ppb	18:27:35
3	As 188.979†	239.9	235.1	420.56 µg/L	420.56 ppb	18:27:55
3	B 249.677†	11912.9	11268.6	457.34 µg/L	457.34 ppb	18:27:35
3	Ba 233.527†	19263.5	18859.7	453.56 µg/L	453.56 ppb	18:27:35
3	Be 313.107†	784759.4	770472.5	457.11 µg/L	457.11 ppb	18:27:29
3	Cd 226.502†	18434.4	18173.4	453.14 µg/L	453.14 ppb	18:27:35
3	Co 228.616†	10122.4	9899.4	447.75 µg/L	447.75 ppb	18:27:35
3	Cr 267.716†	21992.5	21562.5	433.36 µg/L	433.36 ppb	18:27:35
3	Cu 324.752†	71871.2	67757.5	442.99 µg/L	442.99 ppb	18:27:35
3	Mn 257.610†	152131.1	149063.9	467.26 µg/L	467.26 ppb	18:27:29
3	Mo 202.031†	4313.3	4224.4	413.87 µg/L	413.87 ppb	18:27:55
3	Ni 231.604†	9585.0	9063.2	451.33 µg/L	451.33 ppb	18:27:35
3	P 214.914†	1100.5	1061.1	2057.6 µg/L	2057.6 ppb	18:27:55
3	Pb 220.353†	1891.6	1759.4	427.76 µg/L	427.76 ppb	18:27:55
3	S 181.975 Axial†	229.0	205.1	850.35 µg/L	850.35 ppb	18:27:55
3	Sb 206.836†	491.8	458.5	422.37 µg/L	422.37 ppb	18:27:55
3	Se 196.026†	337.5	310.8	444.41 µg/L	444.41 ppb	18:27:55
3	SiO2†	27007.5	25025.9	4939.8 µg/L	4939.8 ppb	18:27:35
3	Si 251.611†	31393.7	30397.3	2310.9 µg/L	2310.9 ppb	18:27:35
3	Sn 189.927†	994.9	972.8	410.27 µg/L	410.27 ppb	18:27:55
3	Ti 334.940†	209196.0	204451.2	451.97 µg/L	451.97 ppb	18:27:29
3	Tl 190.801†	327.6	342.9	450.86 µg/L	450.86 ppb	18:27:55
3	U 409.014†	5293.3	5254.7	435.59 µg/L	435.59 ppb	18:27:35
3	V 292.402†	45934.6	44975.9	443.54 µg/L	443.54 ppb	18:27:35
3	Zn 213.857†	20247.3	19270.6	448.88 µg/L	448.88 ppb	18:27:35

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2018503.9	102.82 %	0.867			0.84%
Sc RADIAL	58065.1	103 %	0.1			0.12%
Y 371.029	1385018.8	102.38 %	0.913			0.89%
Ag 328.068†	65658.6	489.88 µg/L	22.418	489.88 ppb	22.418	4.58%
QC value within limits for Ag 328.068 Recovery = 97.98%						
Al 396.153Radial†	7120.3	4943.4 µg/L	11.28	4943.4 ppb	11.28	0.23%
-QC value within limits for Al 396.153Radial Recovery = 98.87%						
As 188.979†	270.8	484.46 µg/L	56.991	484.46 ppb	56.991	11.76%
QC value within limits for As 188.979 Recovery = 96.89%						
B 249.677†	11934.8	484.58 µg/L	23.933	484.58 ppb	23.933	4.94%
QC value within limits for B 249.677 Recovery = 96.92%						
Ba 233.527†	20399.2	490.60 µg/L	32.321	490.60 ppb	32.321	6.59%
QC value within limits for Ba 233.527 Recovery = 98.12%						
Be 313.107†	820189.6	486.60 µg/L	25.580	486.60 ppb	25.580	5.26%
QC value within limits for Be 313.107 Recovery = 97.32%						
Ca 317.933Radial†	5791.9	4947.3 µg/L	7.57	4947.3 ppb	7.57	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.95%						
Cd 226.502†	19728.8	491.98 µg/L	33.915	491.98 ppb	33.915	6.89%
QC value within limits for Cd 226.502 Recovery = 98.40%						
Co 228.616†	10852.7	490.92 µg/L	37.639	490.92 ppb	37.639	7.67%

QC value within limits for Co 228.616 Recovery = 98.18%					
Cr 267.716†	24186.9	486.10 µg/L	45.880	486.10 ppb	45.880 9.44%
QC value within limits for Cr 267.716 Recovery = 97.22%					
Cu 324.752†	73906.0	483.12 µg/L	35.030	483.12 ppb	35.030 7.25%
QC value within limits for Cu 324.752 Recovery = 96.62%					
Fe 238.204 Radial†	638.3	5044.5 µg/L	13.19	5044.5 ppb	13.19 0.26%
QC value within limits for Fe 238.204 Radial Recovery = 100.89%					
K 766.490 Radial†	7540.4	4924.8 µg/L	25.64	4924.8 ppb	25.64 0.52%
QC value within limits for K 766.490 Radial Recovery = 98.50%					
Mg 279.077 IEC†	564.0	5044.6 µg/L	52.37	5044.6 ppb	52.37 1.04%
QC value within limits for Mg 279.077 IEC Recovery = 100.89%					
Mn 257.610†	158145.2	495.70 µg/L	24.672	495.70 ppb	24.672 4.98%
QC value within limits for Mn 257.610 Recovery = 99.14%					
Mo 202.031†	4896.7	479.70 µg/L	57.728	479.70 ppb	57.728 12.03%
QC value within limits for Mo 202.031 Recovery = 95.94%					
Na 589.592 Radial†	32516.6	9987.3 µg/L	14.87	9987.3 ppb	14.87 0.15%
QC value within limits for Na 589.592 Radial Recovery = 99.87%					
Ni 231.604†	9879.4	491.97 µg/L	35.688	491.97 ppb	35.688 7.25%
QC value within limits for Ni 231.604 Recovery = 98.39%					
P 214.914†	1216.3	2361.7 µg/L	266.42	2361.7 ppb	266.42 11.28%
QC value within limits for P 214.914 Recovery = 94.47%					
Pb 220.353†	1985.8	482.88 µg/L	48.455	482.88 ppb	48.455 10.03%
QC value within limits for Pb 220.353 Recovery = 96.58%					
S 181.975 Axial†	232.7	965.19 µg/L	100.884	965.19 ppb	100.884 10.45%
QC value within limits for S 181.975 Axial Recovery = 96.52%					
Sb 206.836†	522.2	481.27 µg/L	51.474	481.27 ppb	51.474 10.70%
QC value within limits for Sb 206.836 Recovery = 96.25%					
Se 196.026†	351.2	501.12 µg/L	49.509	501.12 ppb	49.509 9.88%
QC value within limits for Se 196.026 Recovery = 100.22%					
SiO2†	26742.7	5278.7 µg/L	297.49	5278.7 ppb	297.49 5.64%
QC value within limits for SiO2 Recovery = 98.71%					
Si 251.611†	32528.9	2472.9 µg/L	141.62	2472.9 ppb	141.62 5.73%
QC value within limits for Si 251.611 Recovery = 98.92%					
Sn 189.927†	1149.8	484.93 µg/L	65.553	484.93 ppb	65.553 13.52%
QC value within limits for Sn 189.927 Recovery = 96.99%					
Sr 421.552†	52696.9	486.14 µg/L	0.873	486.14 ppb	0.873 0.18%
QC value within limits for Sr 421.552 Recovery = 97.23%					
Ti 334.940†	218808.6	483.73 µg/L	27.562	483.73 ppb	27.562 5.70%
QC value within limits for Ti 334.940 Recovery = 96.75%					
Tl 190.801†	376.3	494.61 µg/L	39.121	494.61 ppb	39.121 7.91%
QC value within limits for Tl 190.801 Recovery = 98.92%					
U 409.014†	5846.2	484.73 µg/L	42.700	484.73 ppb	42.700 8.81%
QC value within limits for U 409.014 Recovery = 96.95%					
V 292.402†	49561.4	488.90 µg/L	39.562	488.90 ppb	39.562 8.09%
QC value within limits for V 292.402 Recovery = 97.78%					
Zn 213.857†	21006.1	489.36 µg/L	35.308	489.36 ppb	35.308 7.22%
QC value within limits for Zn 213.857 Recovery = 97.87%					

All analyte(s) passed QC.

Sequence No.: 17

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/19/2010 18:28:05

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56920.6	56920.6	101 %		18:28:38
1	Al 396.153Radial†	-0.3	-7.6	-5.3346 µg/L	-5.3346 ppb	18:28:38
1	Ca 317.933Radial†	189.5	-23.2	-19.841 µg/L	-19.841 ppb	18:28:58
1	Fe 238.204 Radial†	19.4	2.7	21.377 µg/L	21.377 ppb	18:28:58
1	K 766.490 Radial†	221.6	55.0	35.912 µg/L	35.912 ppb	18:28:38
1	Mg 279.077 IEC†	10.8	-2.1	-18.380 µg/L	-18.380 ppb	18:28:58
1	Na 589.592 Radial†	498.2	22.3	6.8542 µg/L	6.8542 ppb	18:28:38
1	Sr 421.552†	54.9	25.7	0.2367 µg/L	0.2367 ppb	18:28:38
1	Sc 361.383	2032515.3	2032515.3	103.53 %		18:30:00
1	Y 371.029	1398820.8	1398820.8	103.41 %		18:30:00
1	Ag 328.068†	-457.1	-39.8	-0.2911 µg/L	-0.2911 ppb	18:30:06
1	As 188.979†	5.6	5.9	10.594 µg/L	10.594 ppb	18:30:26
1	B 249.677†	410.3	12.1	0.4845 µg/L	0.4845 ppb	18:30:26
1	Ba 233.527†	49.3	64.6	1.5526 µg/L	1.5526 ppb	18:30:26
1	Be 313.107†	-2857.0	96.2	0.0570 µg/L	0.0570 ppb	18:30:06
1	Cd 226.502†	-101.1	44.0	1.0963 µg/L	1.0963 ppb	18:30:26
1	Co 228.616†	28.1	25.2	1.1408 µg/L	1.1408 ppb	18:30:26
1	Cr 267.716†	-32.9	18.6	0.3731 µg/L	0.3731 ppb	18:30:06
1	Cu 324.752†	2585.0	-47.0	-0.3039 µg/L	-0.3039 ppb	18:30:06
1	Mn 257.610†	1142.9	1359.9	4.2620 µg/L	4.2620 ppb	18:30:26
1	Mo 202.031†	8.1	13.2	1.2945 µg/L	1.2945 ppb	18:30:26
1	Ni 231.604†	338.7	14.7	0.7339 µg/L	0.7339 ppb	18:30:26
1	P 214.914†	15.9	0.0	0.2437 µg/L	0.2437 ppb	18:30:26
1	Pb 220.353†	99.8	5.5	1.3339 µg/L	1.3339 ppb	18:30:26
1	S 181.975 Axial†	18.1	-1.5	-6.0253 µg/L	-6.0253 ppb	18:30:26
1	Sb 206.836†	22.7	-0.5	-0.4788 µg/L	-0.4788 ppb	18:30:26
1	Se 196.026†	18.0	-1.9	-2.6538 µg/L	-2.6538 ppb	18:30:26
1	SiO2†	1447.9	6.9	1.3541 µg/L	1.3541 ppb	18:30:06
1	Si 251.611†	659.6	326.5	24.820 µg/L	24.820 ppb	18:30:26
1	Sn 189.927†	38.3	36.6	15.441 µg/L	15.441 ppb	18:30:26
1	Ti 334.940†	321.1	135.1	0.3001 µg/L	0.3001 ppb	18:30:06
1	Tl 190.801†	-21.1	2.0	2.6395 µg/L	2.6395 ppb	18:30:26
1	U 409.014†	-28.7	49.4	4.1035 µg/L	4.1035 ppb	18:30:06
1	V 292.402†	-3.2	41.6	0.4232 µg/L	0.4232 ppb	18:30:06
1	Zn 213.857†	618.9	63.4	1.4848 µg/L	1.4848 ppb	18:30:26
2	Sc RADIAL	56709.3	56709.3	100 %		18:29:04
2	Al 396.153Radial†	-16.5	-23.8	-16.528 µg/L	-16.528 ppb	18:29:04
2	Ca 317.933Radial†	196.4	-15.6	-13.311 µg/L	-13.311 ppb	18:29:24
2	Fe 238.204 Radial†	19.1	2.4	18.992 µg/L	18.992 ppb	18:29:24
2	K 766.490 Radial†	204.3	38.5	25.150 µg/L	25.150 ppb	18:29:04
2	Mg 279.077 IEC†	11.8	-1.1	-9.6092 µg/L	-9.6092 ppb	18:29:24
2	Na 589.592 Radial†	485.8	11.8	3.6148 µg/L	3.6148 ppb	18:29:04
2	Sr 421.552†	30.8	1.9	0.0174 µg/L	0.0174 ppb	18:29:04
2	Sc 361.383	2017506.8	2017506.8	102.77 %		18:30:32
2	Y 371.029	1389281.0	1389281.0	102.70 %		18:30:32
2	Ag 328.068†	-439.2	-25.7	-0.1831 µg/L	-0.1831 ppb	18:30:38
2	As 188.979†	-2.8	-2.2	-4.0102 µg/L	-4.0102 ppb	18:30:58
2	B 249.677†	382.6	-11.8	-0.4899 µg/L	-0.4899 ppb	18:30:58
2	Ba 233.527†	4.3	21.2	0.5118 µg/L	0.5118 ppb	18:30:58
2	Be 313.107†	-2101.4	811.0	0.4800 µg/L	0.4800 ppb	18:30:38
2	Cd 226.502†	-138.5	6.9	0.1705 µg/L	0.1705 ppb	18:30:58
2	Co 228.616†	11.1	8.8	0.3922 µg/L	0.3922 ppb	18:30:58
2	Cr 267.716†	4.0	54.3	1.0911 µg/L	1.0911 ppb	18:30:38
2	Cu 324.752†	2748.4	130.6	0.8552 µg/L	0.8552 ppb	18:30:38
2	Mn 257.610†	83.5	337.3	1.0592 µg/L	1.0592 ppb	18:30:58
2	Mo 202.031†	-7.8	-2.2	-0.2192 µg/L	-0.2192 ppb	18:30:58
2	Ni 231.604†	324.9	3.8	0.1884 µg/L	0.1884 ppb	18:30:58
2	P 214.914†	13.0	-2.7	-5.2676 µg/L	-5.2676 ppb	18:30:58
2	Pb 220.353†	93.0	-0.4	-0.1127 µg/L	-0.1127 ppb	18:30:58

2	S 181.975 Axial†	20.2	0.7	2.8524 µg/L	2.8524 ppb	18:30:58
2	Sb 206.836†	24.9	1.7	1.5373 µg/L	1.5373 ppb	18:30:58
2	Se 196.026†	20.3	0.5	0.7192 µg/L	0.7192 ppb	18:30:58
2	SiO2†	1642.6	206.7	40.802 µg/L	40.802 ppb	18:30:38
2	Si 251.611†	453.6	130.8	9.9406 µg/L	9.9406 ppb	18:30:58
2	Sn 189.927†	19.1	18.2	7.6779 µg/L	7.6779 ppb	18:30:58
2	Ti 334.940†	1831.1	1606.7	3.5550 µg/L	3.5550 ppb	18:30:38
2	Tl 190.801†	-20.6	2.3	3.0926 µg/L	3.0926 ppb	18:30:58
2	U 409.014†	-17.3	60.3	5.0059 µg/L	5.0059 ppb	18:30:38
2	V 292.402†	54.7	98.0	0.9631 µg/L	0.9631 ppb	18:30:38
2	Zn 213.857†	549.1	-0.1	-0.0060 µg/L	-0.0060 ppb	18:30:58
3	Sc RADIAL	57463.0	57463.0	102 %		18:29:29
3	Al 396.153Radial†	-41.0	-47.6	-33.158 µg/L	-33.158 ppb	18:29:29
3	Ca 317.933Radial†	194.3	-20.2	-17.244 µg/L	-17.244 ppb	18:29:50
3	Fe 238.204 Radial†	18.7	1.8	14.201 µg/L	14.201 ppb	18:29:50
3	K 766.490 Radial†	178.1	10.2	6.6395 µg/L	6.6395 ppb	18:29:29
3	Mg 279.077 IEC†	8.7	-4.2	-37.957 µg/L	-37.957 ppb	18:29:50
3	Na 589.592 Radial†	506.8	26.1	8.0102 µg/L	8.0102 ppb	18:29:29
3	Sr 421.552†	42.9	13.3	0.1232 µg/L	0.1232 ppb	18:29:29
3	Sc 361.383	2013891.9	2013891.9	102.59 %		18:31:04
3	Y 371.029	1385497.7	1385497.7	102.42 %		18:31:04
3	Ag 328.068†	-434.1	-21.6	-0.1566 µg/L	-0.1566 ppb	18:31:10
3	As 188.979†	1.4	1.8	3.2592 µg/L	3.2592 ppb	18:31:31
3	B 249.677†	380.8	-12.9	-0.5336 µg/L	-0.5336 ppb	18:31:31
3	Ba 233.527†	-7.5	9.7	0.2343 µg/L	0.2343 ppb	18:31:31
3	Be 313.107†	-2627.4	294.5	0.1745 µg/L	0.1745 ppb	18:31:10
3	Cd 226.502†	-139.2	6.0	0.1475 µg/L	0.1475 ppb	18:31:31
3	Co 228.616†	-2.4	-4.2	-0.1927 µg/L	-0.1927 ppb	18:31:31
3	Cr 267.716†	-21.1	29.8	0.5980 µg/L	0.5980 ppb	18:31:10
3	Cu 324.752†	2619.6	9.8	0.0659 µg/L	0.0659 ppb	18:31:10
3	Mn 257.610†	-3.1	253.0	0.7956 µg/L	0.7956 ppb	18:31:31
3	Mo 202.031†	1.5	6.8	0.6637 µg/L	0.6637 ppb	18:31:31
3	Ni 231.604†	309.6	-10.5	-0.5253 µg/L	-0.5253 ppb	18:31:31
3	P 214.914†	10.7	-4.9	-9.6506 µg/L	-9.6506 ppb	18:31:31
3	Pb 220.353†	92.1	-1.1	-0.2804 µg/L	-0.2804 ppb	18:31:31
3	S 181.975 Axial†	20.6	1.2	4.9214 µg/L	4.9214 ppb	18:31:31
3	Sb 206.836†	22.0	-1.0	-0.9299 µg/L	-0.9299 ppb	18:31:31
3	Se 196.026†	22.4	2.6	3.6800 µg/L	3.6800 ppb	18:31:31
3	SiO2†	1531.3	101.1	19.951 µg/L	19.951 ppb	18:31:10
3	Si 251.611†	470.6	148.1	11.258 µg/L	11.258 ppb	18:31:31
3	Sn 189.927†	15.7	14.9	6.2845 µg/L	6.2845 ppb	18:31:31
3	Ti 334.940†	545.2	356.5	0.7913 µg/L	0.7913 ppb	18:31:10
3	Tl 190.801†	-18.8	4.0	5.2381 µg/L	5.2381 ppb	18:31:31
3	U 409.014†	-62.1	16.5	1.3714 µg/L	1.3714 ppb	18:31:10
3	V 292.402†	-10.9	34.2	0.3425 µg/L	0.3425 ppb	18:31:10
3	Zn 213.857†	537.6	-10.4	-0.2395 µg/L	-0.2395 ppb	18:31:31

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	2021304.7	102.96 %		0.503				0.49%
Sc RADIAL	57030.9	101 %		0.7				0.68%
Y 371.029	1391199.8	102.84 %		0.508				0.49%
Ag 328.068†	-29.0	-0.2103 µg/L		0.07128	-0.2103 ppb		0.07128	33.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-26.3	-18.340 µg/L		14.0000	-18.340 ppb		14.0000	76.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	3.2809 µg/L		7.30195	3.2809 ppb		7.30195	222.56%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-4.2	-0.1797 µg/L		0.57561	-0.1797 ppb		0.57561	320.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	31.9	0.7662 µg/L		0.69500	0.7662 ppb		0.69500	90.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	400.6	0.2372 µg/L		0.21833	0.2372 ppb		0.21833	92.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.7	-16.799 µg/L		3.2876	-16.799 ppb		3.2876	19.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.0	0.4714 µg/L		0.54127	0.4714 ppb		0.54127	114.82%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.9	0.4468 µg/L		0.66842	0.4468 ppb		0.66842	149.61%



QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	34.2	0.6874 µg/L	0.36726	0.6874 ppb	0.36726	53.43%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	31.1	0.2057 µg/L	0.59207	0.2057 ppb	0.59207	287.77%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	2.3	18.190 µg/L	3.6545	18.190 ppb	3.6545	20.09%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	34.6	22.567 µg/L	14.8062	22.567 ppb	14.8062	65.61%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-2.5	-21.982 µg/L	14.5132	-21.982 ppb	14.5132	66.02%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	650.0	2.0389 µg/L	1.92974	2.0389 ppb	1.92974	94.65%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	5.9	0.5797 µg/L	0.76032	0.5797 ppb	0.76032	131.17%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	20.1	6.1597 µg/L	2.27853	6.1597 ppb	2.27853	36.99%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	2.7	0.1323 µg/L	0.63148	0.1323 ppb	0.63148	477.25%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-2.5	-4.8915 µg/L	4.95786	-4.8915 ppb	4.95786	101.36%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	1.3	0.3136 µg/L	0.88754	0.3136 ppb	0.88754	283.00%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	0.1	0.5829 µg/L	5.81558	0.5829 ppb	5.81558	997.77%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	0.0	0.0429 µg/L	1.31372	0.0429 ppb	1.31372	>999.9%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	0.4	0.5818 µg/L	3.16914	0.5818 ppb	3.16914	544.71%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	104.9	20.702 µg/L	19.7346	20.702 ppb	19.7346	95.33%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	201.8	15.340 µg/L	8.2366	15.340 ppb	8.2366	53.69%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	23.3	9.8010 µg/L	4.93347	9.8010 ppb	4.93347	50.34%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	13.6	0.1258 µg/L	0.10971	0.1258 ppb	0.10971	87.24%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	699.4	1.5488 µg/L	1.75468	1.5488 ppb	1.75468	113.30%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	2.8	3.6567 µg/L	1.38813	3.6567 ppb	1.38813	37.96%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	42.1	3.4936 µg/L	1.89246	3.4936 ppb	1.89246	54.17%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	57.9	0.5763 µg/L	0.33743	0.5763 ppb	0.33743	58.55%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	17.6	0.4131 µg/L	0.93546	0.4131 ppb	0.93546	226.45%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 18

Sample ID: 245688002|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 314

Date Collected: 2/19/2010 18:31:40

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688002|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57411.7	57411.7	102 %		18:32:17
1	Al 396.153Radial†	46454.9	45706.3	31796 µg/L	31796 ppb	18:32:17
1	Ca 317.933Radial†	8430.3	8084.5	6905.7 µg/L	6905.7 ppb	18:32:37
1	Fe 238.204 Radial†	12084.1	11874.7	93655 µg/L	93655 ppb	18:32:37
1	K 766.490 Radial†	8010.6	7717.8	5040.6 µg/L	5040.6 ppb	18:32:17
1	Mg 279.077 IEC†	618.8	596.1	5228.0 µg/L	5228.0 ppb	18:32:37
1	Na 589.592 Radial†	5877.4	5311.5	1631.4 µg/L	1631.4 ppb	18:32:17
1	Sr 421.552†	7574.9	7425.2	68.499 µg/L	68.499 ppb	18:32:17
1	Sc 361.383	2020607.6	2020607.6	102.93 %		18:33:41
1	Y 371.029	1500641.7	1500641.7	110.93 %		18:33:41
1	Ag 328.068†	-1508.9	-1064.3	-1.6902 µg/L	-1.6902 ppb	18:33:47
1	As 188.979†	13.1	13.2	28.651 µg/L	28.651 ppb	18:34:07
1	B 249.677†	843.9	435.8	-31.004 µg/L	-31.004 ppb	18:33:47
1	Ba 233.527†	20380.3	19817.5	475.84 µg/L	475.84 ppb	18:33:47
1	Be 313.107†	8261.1	10881.8	5.9996 µg/L	5.9996 ppb	18:33:47
1	Cd 226.502†	187.5	323.9	-2.4449 µg/L	-2.4449 ppb	18:34:07
1	Co 228.616†	956.7	927.5	39.499 µg/L	39.499 ppb	18:34:07
1	Cr 267.716†	3241.2	3199.4	64.289 µg/L	64.289 ppb	18:34:07
1	Cu 324.752†	5829.7	3120.1	33.385 µg/L	33.385 ppb	18:33:47
1	Mn 257.610†	789518.6	767312.2	2415.1 µg/L	2415.1 ppb	18:33:41
1	Mo 202.031†	78.9	82.0	11.588 µg/L	11.588 ppb	18:34:07
1	Ni 231.604†	1558.3	1201.6	61.067 µg/L	61.067 ppb	18:34:07
1	P 214.914†	301.9	278.0	481.50 µg/L	481.50 ppb	18:34:07
1	Pb 220.353†	328.1	227.9	53.751 µg/L	53.751 ppb	18:34:07
1	S 181.975 Axial†	45.5	25.2	104.63 µg/L	104.63 ppb	18:34:07
1	Sb 206.836†	32.4	9.0	7.0722 µg/L	7.0722 ppb	18:34:07
1	Se 196.026†	-40.1	-58.3	167.53 µg/L	167.53 ppb	18:34:07
1	SiO2†	89429.4	85493.5	16875 µg/L	16875 ppb	18:33:47
1	Si 251.611†	106865.8	103514.8	7869.4 µg/L	7869.4 ppb	18:33:47
1	Sn 189.927†	25.9	24.8	1.0453 µg/L	1.0453 ppb	18:34:07
1	Ti 334.940†	560428.0	544308.3	1203.8 µg/L	1203.8 ppb	18:33:41
1	Tl 190.801†	-39.0	-15.5	15.020 µg/L	15.020 ppb	18:34:07
1	U 409.014†	-2250.4	-2109.3	-188.69 µg/L	-188.69 ppb	18:33:41
1	V 292.402†	4657.5	4569.8	55.585 µg/L	55.585 ppb	18:33:47
1	Zn 213.857†	19181.4	18101.3	419.64 µg/L	419.64 ppb	18:33:47
2	Sc RADIAL	57481.1	57481.1	102 %		18:32:43
2	Al 396.153Radial†	47138.1	46322.6	32224 µg/L	32224 ppb	18:32:43
2	Ca 317.933Radial†	8478.4	8121.7	6937.4 µg/L	6937.4 ppb	18:33:03
2	Fe 238.204 Radial†	12171.2	11946.0	94218 µg/L	94218 ppb	18:33:03
2	K 766.490 Radial†	8051.4	7748.4	5060.6 µg/L	5060.6 ppb	18:32:43
2	Mg 279.077 IEC†	613.2	589.9	5172.3 µg/L	5172.3 ppb	18:33:03
2	Na 589.592 Radial†	5946.0	5371.9	1649.9 µg/L	1649.9 ppb	18:32:43
2	Sr 421.552†	7624.3	7464.8	68.864 µg/L	68.864 ppb	18:32:43
2	Sc 361.383	2011821.3	2011821.3	102.48 %		18:34:15
2	Y 371.029	1494992.4	1494992.4	110.51 %		18:34:15
2	Ag 328.068†	-1498.9	-1061.0	-1.6315 µg/L	-1.6315 ppb	18:34:20
2	As 188.979†	9.7	9.9	22.876 µg/L	22.876 ppb	18:34:41
2	B 249.677†	799.3	395.9	-32.927 µg/L	-32.927 ppb	18:34:20
2	Ba 233.527†	20396.0	19919.3	478.29 µg/L	478.29 ppb	18:34:20
2	Be 313.107†	8001.8	10663.8	5.8730 µg/L	5.8730 ppb	18:34:20
2	Cd 226.502†	180.5	317.9	-2.6595 µg/L	-2.6595 ppb	18:34:41
2	Co 228.616†	949.4	924.5	39.378 µg/L	39.378 ppb	18:34:41
2	Cr 267.716†	3166.5	3140.2	63.100 µg/L	63.100 ppb	18:34:41
2	Cu 324.752†	5805.0	3120.7	33.467 µg/L	33.467 ppb	18:34:20
2	Mn 257.610†	783658.6	764944.1	2407.8 µg/L	2407.8 ppb	18:34:15
2	Mo 202.031†	76.3	79.8	11.395 µg/L	11.395 ppb	18:34:41
2	Ni 231.604†	1543.7	1194.0	60.694 µg/L	60.694 ppb	18:34:41
2	P 214.914†	299.0	276.4	478.04 µg/L	478.04 ppb	18:34:41
2	Pb 220.353†	323.6	224.9	53.046 µg/L	53.046 ppb	18:34:41

2	S 181.975 Axial†	48.0	27.9	115.62 µg/L	115.62 ppb	18:34:41
2	Sb 206.836†	28.9	5.7	4.0553 µg/L	4.0553 ppb	18:34:41
2	Se 196.026†	-33.2	-51.7	178.31 µg/L	178.31 ppb	18:34:41
2	SiO2†	89597.1	86036.6	16982 µg/L	16982 ppb	18:34:20
2	Si 251.611†	106975.7	104075.5	7912.0 µg/L	7912.0 ppb	18:34:20
2	Sn 189.927†	24.8	23.8	0.5777 µg/L	0.5777 ppb	18:34:41
2	Ti 334.940†	554667.6	541065.4	1196.7 µg/L	1196.7 ppb	18:34:15
2	Tl 190.801†	-45.5	-22.0	6.6148 µg/L	6.6148 ppb	18:34:41
2	U 409.014†	-2520.0	-2381.9	-211.42 µg/L	-211.42 ppb	18:34:15
2	V 292.402†	4610.1	4543.3	55.365 µg/L	55.365 ppb	18:34:20
2	Zn 213.857†	19220.1	18220.4	422.41 µg/L	422.41 ppb	18:34:20
3	Sc RADIAL	57638.8	57638.8	102 %		18:33:08
3	Al 396.153Radial†	47281.8	46336.7	32234 µg/L	32234 ppb	18:33:08
3	Ca 317.933Radial†	8379.4	8001.9	6835.1 µg/L	6835.1 ppb	18:33:29
3	Fe 238.204 Radial†	12002.1	11747.5	92652 µg/L	92652 ppb	18:33:29
3	K 766.490 Radial†	8051.6	7726.9	5046.6 µg/L	5046.6 ppb	18:33:08
3	Mg 279.077 IEC†	612.4	587.4	5151.6 µg/L	5151.6 ppb	18:33:29
3	Na 589.592 Radial†	5999.5	5408.3	1661.1 µg/L	1661.1 ppb	18:33:08
3	Sr 421.552†	7680.8	7499.7	69.185 µg/L	69.185 ppb	18:33:08
3	Sc 361.383	2018685.1	2018685.1	102.83 %		18:34:48
3	Y 371.029	1491590.0	1491590.0	110.26 %		18:34:48
3	Ag 328.068†	-1429.8	-988.8	-1.2163 µg/L	-1.2163 ppb	18:34:54
3	As 188.979†	5.0	5.3	14.544 µg/L	14.544 ppb	18:35:14
3	B 249.677†	793.9	387.9	-32.447 µg/L	-32.447 ppb	18:34:54
3	Ba 233.527†	19080.0	18571.9	445.93 µg/L	445.93 ppb	18:34:54
3	Be 313.107†	7072.6	9733.6	5.3459 µg/L	5.3459 ppb	18:34:54
3	Cd 226.502†	144.3	282.0	-3.3831 µg/L	-3.3831 ppb	18:35:14
3	Co 228.616†	839.0	814.0	34.511 µg/L	34.511 ppb	18:35:14
3	Cr 267.716†	2800.5	2773.7	55.737 µg/L	55.737 ppb	18:35:14
3	Cu 324.752†	5520.0	2824.4	31.315 µg/L	31.315 ppb	18:34:54
3	Mn 257.610†	748408.6	728064.4	2292.1 µg/L	2292.1 ppb	18:34:48
3	Mo 202.031†	73.6	76.9	11.056 µg/L	11.056 ppb	18:35:14
3	Ni 231.604†	1411.2	1060.0	54.003 µg/L	54.003 ppb	18:35:14
3	P 214.914†	271.1	248.3	423.82 µg/L	423.82 ppb	18:35:14
3	Pb 220.353†	306.9	207.6	48.870 µg/L	48.870 ppb	18:35:14
3	S 181.975 Axial†	44.8	24.6	102.11 µg/L	102.11 ppb	18:35:14
3	Sb 206.836†	28.8	5.5	3.9831 µg/L	3.9831 ppb	18:35:14
3	Se 196.026†	-31.4	-49.8	176.75 µg/L	176.75 ppb	18:35:14
3	SiO2†	83796.1	80098.0	15810 µg/L	15810 ppb	18:34:54
3	Si 251.611†	99831.7	96773.2	7356.9 µg/L	7356.9 ppb	18:34:54
3	Sn 189.927†	27.8	26.6	1.9369 µg/L	1.9369 ppb	18:35:14
3	Ti 334.940†	525993.2	511339.9	1130.9 µg/L	1130.9 ppb	18:34:48
3	Tl 190.801†	-39.1	-15.7	13.615 µg/L	13.615 ppb	18:35:14
3	U 409.014†	-2136.6	-2000.8	-179.53 µg/L	-179.53 ppb	18:34:48
3	V 292.402†	4294.7	4221.3	52.056 µg/L	52.056 ppb	18:34:54
3	Zn 213.857†	17969.9	16940.9	392.50 µg/L	392.50 ppb	18:34:54

Mean Data: 245688002|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2017038.0	102.75 %	0.235			0.23%
Sc RADIAL	57510.5	102 %	0.2			0.20%
Y 371.029	1495741.4	110.57 %	0.338			0.31%
Ag 328.068†	-1038.0	-1.5127 µg/L	0.25830	-1.5127 ppb	0.25830	17.08%
Al 396.153Radial†	46121.9	32085 µg/L	250.4	32085 ppb	250.4	0.78%
As 188.979†	9.5	22.024 µg/L	7.0918	22.024 ppb	7.0918	32.20%
B 249.677†	406.5	-32.126 µg/L	1.0008	-32.126 ppb	1.0008	3.12%
Ba 233.527†	19436.3	466.69 µg/L	18.015	466.69 ppb	18.015	3.86%
Be 313.107†	10426.4	5.7395 µg/L	0.34666	5.7395 ppb	0.34666	6.04%
Ca 317.933Radial†	8069.4	6892.7 µg/L	52.38	6892.7 ppb	52.38	0.76%
Cd 226.502†	307.9	-2.8291 µg/L	0.49156	-2.8291 ppb	0.49156	17.37%
Co 228.616†	888.7	37.796 µg/L	2.8454	37.796 ppb	2.8454	7.53%
Cr 267.716†	3037.8	61.042 µg/L	4.6321	61.042 ppb	4.6321	7.59%
Cu 324.752†	3021.7	32.722 µg/L	1.2195	32.722 ppb	1.2195	3.73%
Fe 238.204 Radial†	11856.1	93509 µg/L	792.9	93509 ppb	792.9	0.85%
K 766.490 Radial†	7731.0	5049.3 µg/L	10.24	5049.3 ppb	10.24	0.20%
Mg 279.077 IEC†	591.1	5184.0 µg/L	39.54	5184.0 ppb	39.54	0.76%
Mn 257.610†	753440.2	2371.6 µg/L	69.01	2371.6 ppb	69.01	2.91%
Mo 202.031†	79.6	11.346 µg/L	0.2695	11.346 ppb	0.2695	2.38%
Na 589.592 Radial†	5363.9	1647.5 µg/L	15.02	1647.5 ppb	15.02	0.91%

Ni 231.604†	1151.9	58.588 µg/L	3.9751	58.588 ppb	3.9751	6.78%
P 214.914†	267.6	461.12 µg/L	32.347	461.12 ppb	32.347	7.01%
Pb 220.353†	220.1	51.889 µg/L	2.6380	51.889 ppb	2.6380	5.08%
S 181.975 Axial†	25.9	107.45 µg/L	7.183	107.45 ppb	7.183	6.68%
Sb 206.836†	6.8	5.0369 µg/L	1.76299	5.0369 ppb	1.76299	35.00%
Se 196.026†	-53.3	174.20 µg/L	5.827	174.20 ppb	5.827	3.34%
SiO2†	83876.0	16556 µg/L	648.0	16556 ppb	648.0	3.91%
Si 251.611†	101454.5	7712.8 µg/L	308.94	7712.8 ppb	308.94	4.01%
Sn 189.927†	25.1	1.1867 µg/L	0.69055	1.1867 ppb	0.69055	58.19%
Sr 421.552†	7463.2	68.849 µg/L	0.3436	68.849 ppb	0.3436	0.50%
Ti 334.940†	532237.9	1177.1 µg/L	40.20	1177.1 ppb	40.20	3.41%
Tl 190.801†	-17.7	11.750 µg/L	4.5023	11.750 ppb	4.5023	38.32%
U 409.014†	-2164.0	-193.21 µg/L	16.420	-193.21 ppb	16.420	8.50%
V 292.402†	4444.8	54.335 µg/L	1.9769	54.335 ppb	1.9769	3.64%
Zn 213.857†	17754.2	411.51 µg/L	16.527	411.51 ppb	16.527	4.02%

Sequence No.: 19

Sample ID: 245688003|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 315

Date Collected: 2/19/2010 18:35:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688003|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57702.7	57702.7	102 %		18:35:56
1	Al 396.153Radial†	81341.7	79632.8	55396 µg/L	55396 ppb	18:35:56
1	Ca 317.933Radial†	25961.0	25206.7	21531 µg/L	21531 ppb	18:35:56
1	Fe 238.204 Radial†	15611.2	15268.0	120420 µg/L	120420 ppb	18:35:56
1	K 766.490 Radial†	12619.6	12190.6	7961.9 µg/L	7961.9 ppb	18:35:56
1	Mg 279.077 IEC†	1219.3	1180.9	10428 µg/L	10428 ppb	18:36:16
1	Na 589.592 Radial†	7825.1	7189.3	2208.1 µg/L	2208.1 ppb	18:35:56
1	Sr 421.552†	17905.0	17501.6	161.45 µg/L	161.45 ppb	18:35:56
1	Sc 361.383	2036950.8	2036950.8	103.76 %		18:37:20
1	Y 371.029	1502006.7	1502006.7	111.03 %		18:37:20
1	Ag 328.068†	-1924.9	-1453.5	-2.6995 µg/L	-2.6995 ppb	18:37:26
1	As 188.979†	15.2	15.1	32.846 µg/L	32.846 ppb	18:37:47
1	B 249.677†	991.3	571.2	-38.975 µg/L	-38.975 ppb	18:37:26
1	Ba 233.527†	39127.4	37726.3	905.83 µg/L	905.83 ppb	18:37:26
1	Be 313.107†	17500.8	19722.1	11.155 µg/L	11.155 ppb	18:37:26
1	Cd 226.502†	249.7	382.3	-3.8567 µg/L	-3.8567 ppb	18:37:47
1	Co 228.616†	1074.2	1033.3	43.806 µg/L	43.806 ppb	18:37:47
1	Cr 267.716†	18585.3	17962.0	360.82 µg/L	360.82 ppb	18:37:26
1	Cu 324.752†	7208.4	4403.4	45.481 µg/L	45.481 ppb	18:37:26
1	Mn 257.610†	1285054.8	1238732.9	3894.7 µg/L	3894.7 ppb	18:37:20
1	Mo 202.031†	252.2	248.4	28.905 µg/L	28.905 ppb	18:37:47
1	Ni 231.604†	4806.4	4319.9	216.85 µg/L	216.85 ppb	18:37:26
1	P 214.914†	492.2	459.0	824.21 µg/L	824.21 ppb	18:37:47
1	Pb 220.353†	374.6	270.1	64.348 µg/L	64.348 ppb	18:37:47
1	S 181.975 Axial†	97.5	75.1	311.31 µg/L	311.31 ppb	18:37:47
1	Sb 206.836†	37.2	13.3	6.6533 µg/L	6.6533 ppb	18:37:47
1	Se 196.026†	-43.3	-61.0	228.09 µg/L	228.09 ppb	18:37:47
1	SiO2†	92617.2	87868.7	17344 µg/L	17344 ppb	18:37:26
1	Si 251.611†	110776.7	106450.9	8092.6 µg/L	8092.6 ppb	18:37:26
1	Sn 189.927†	43.4	41.5	5.7768 µg/L	5.7768 ppb	18:37:47
1	Ti 334.940†	677050.1	652334.8	1442.6 µg/L	1442.6 ppb	18:37:20
1	Tl 190.801†	-45.5	-21.5	19.714 µg/L	19.714 ppb	18:37:47
1	U 409.014†	-2523.6	-2355.0	-213.72 µg/L	-213.72 ppb	18:37:20
1	V 292.402†	7723.1	7487.9	87.960 µg/L	87.960 ppb	18:37:26
1	Zn 213.857†	13774.1	12740.4	291.59 µg/L	291.59 ppb	18:37:26
2	Sc RADIAL	58370.7	58370.7	103 %		18:36:22
2	Al 396.153Radial†	81826.9	79191.0	55089 µg/L	55089 ppb	18:36:22
2	Ca 317.933Radial†	26172.4	25120.4	21457 µg/L	21457 ppb	18:36:22
2	Fe 238.204 Radial†	15742.7	15220.4	120040 µg/L	120040 ppb	18:36:22
2	K 766.490 Radial†	12724.1	12150.4	7935.6 µg/L	7935.6 ppb	18:36:22
2	Mg 279.077 IEC†	1224.6	1172.4	10352 µg/L	10352 ppb	18:36:42
2	Na 589.592 Radial†	7906.3	7180.1	2205.3 µg/L	2205.3 ppb	18:36:22
2	Sr 421.552†	18127.2	17516.1	161.59 µg/L	161.59 ppb	18:36:22
2	Sc 361.383	2004574.0	2004574.0	102.11 %		18:37:54
2	Y 371.029	1479675.6	1479675.6	109.38 %		18:37:54
2	Ag 328.068†	-1835.0	-1395.4	-2.2881 µg/L	-2.2881 ppb	18:38:00
2	As 188.979†	17.6	17.7	37.588 µg/L	37.588 ppb	18:38:20
2	B 249.677†	1012.6	607.5	-37.295 µg/L	-37.295 ppb	18:38:00
2	Ba 233.527†	38874.2	38087.3	914.50 µg/L	914.50 ppb	18:38:00
2	Be 313.107†	17386.4	19882.6	11.249 µg/L	11.249 ppb	18:38:00
2	Cd 226.502†	264.1	400.4	-3.3623 µg/L	-3.3623 ppb	18:38:20
2	Co 228.616†	1074.2	1050.1	44.555 µg/L	44.555 ppb	18:38:20
2	Cr 267.716†	18453.1	18121.9	364.03 µg/L	364.03 ppb	18:38:00
2	Cu 324.752†	7149.7	4458.1	45.786 µg/L	45.786 ppb	18:38:00
2	Mn 257.610†	1267391.6	1241438.2	3903.1 µg/L	3903.1 ppb	18:37:54
2	Mo 202.031†	240.6	241.0	28.159 µg/L	28.159 ppb	18:38:20
2	Ni 231.604†	4770.8	4359.8	218.84 µg/L	218.84 ppb	18:38:00
2	P 214.914†	485.8	460.4	827.05 µg/L	827.05 ppb	18:38:20
2	Pb 220.353†	384.3	285.4	68.077 µg/L	68.077 ppb	18:38:20

2	S 181.975 Axial†	98.5	77.5	321.37 µg/L	321.37 ppb	18:38:20
2	Sb 206.836†	31.2	8.0	1.7540 µg/L	1.7540 ppb	18:38:20
2	Se 196.026†	-52.8	-71.0	213.07 µg/L	213.07 ppb	18:38:20
2	SiO2†	92105.6	88809.3	17530 µg/L	17530 ppb	18:38:00
2	Si 251.611†	110344.1	107751.5	8191.5 µg/L	8191.5 ppb	18:38:00
2	Sn 189.927†	37.0	35.8	3.4309 µg/L	3.4309 ppb	18:38:20
2	Ti 334.940†	668268.6	654273.9	1446.9 µg/L	1446.9 ppb	18:37:54
2	Tl 190.801†	-48.8	-25.4	14.548 µg/L	14.548 ppb	18:38:20
2	U 409.014†	-2459.2	-2331.3	-211.69 µg/L	-211.69 ppb	18:37:54
2	V 292.402†	7670.4	7556.5	88.588 µg/L	88.588 ppb	18:38:00
2	Zn 213.857†	13744.9	12926.2	295.97 µg/L	295.97 ppb	18:38:00
3	Sc RADIAL	57919.6	57919.6	103 %		18:36:48
3	Al 396.153Radial†	81718.2	79701.7	55444 µg/L	55444 ppb	18:36:48
3	Ca 317.933Radial†	26094.8	25242.0	21561 µg/L	21561 ppb	18:36:48
3	Fe 238.204 Radial†	15687.0	15284.7	120550 µg/L	120550 ppb	18:36:48
3	K 766.490 Radial†	12609.8	12134.8	7925.4 µg/L	7925.4 ppb	18:36:48
3	Mg 279.077 IEC†	1230.4	1187.3	10485 µg/L	10485 ppb	18:37:08
3	Na 589.592 Radial†	7894.4	7228.1	2220.1 µg/L	2220.1 ppb	18:36:48
3	Sr 421.552†	18060.6	17587.8	162.25 µg/L	162.25 ppb	18:36:48
3	Sc 361.383	2027760.4	2027760.4	103.29 %		18:38:27
3	Y 371.029	1490900.1	1490900.1	110.21 %		18:38:27
3	Ag 328.068†	-1749.0	-1291.6	-1.5255 µg/L	-1.5255 ppb	18:38:33
3	As 188.979†	10.9	11.0	25.576 µg/L	25.576 ppb	18:38:54
3	B 249.677†	962.2	547.4	-40.054 µg/L	-40.054 ppb	18:38:33
3	Ba 233.527†	36976.1	35814.4	859.92 µg/L	859.92 ppb	18:38:33
3	Cd 313.107†	16075.2	18418.4	10.408 µg/L	10.408 ppb	18:38:33
3	Ce 226.502†	220.5	355.1	-4.5621 µg/L	-4.5621 ppb	18:38:54
3	Co 228.616†	976.3	943.3	39.873 µg/L	39.873 ppb	18:38:54
3	Cr 267.716†	17310.3	16808.8	337.65 µg/L	337.65 ppb	18:38:33
3	Cu 324.752†	6902.7	4138.9	43.773 µg/L	43.773 ppb	18:38:33
3	Mn 257.610†	1225099.1	1186301.6	3730.5 µg/L	3730.5 ppb	18:38:27
3	Mo 202.031†	213.7	212.2	25.362 µg/L	25.362 ppb	18:38:54
3	Ni 231.604†	4519.7	4063.3	204.07 µg/L	204.07 ppb	18:38:33
3	P 214.914†	447.1	417.5	742.12 µg/L	742.12 ppb	18:38:54
3	Pb 220.353†	357.0	254.6	60.578 µg/L	60.578 ppb	18:38:54
3	S 181.975 Axial†	85.4	63.8	264.48 µg/L	264.48 ppb	18:38:54
3	Sb 206.836†	34.8	11.2	4.9105 µg/L	4.9105 ppb	18:38:54
3	Se 196.026†	-38.6	-56.7	234.45 µg/L	234.45 ppb	18:38:54
3	SiO2†	87936.3	83741.5	16529 µg/L	16529 ppb	18:38:33
3	Si 251.611†	105082.3	101421.9	7710.3 µg/L	7710.3 ppb	18:38:33
3	Sn 189.927†	34.9	33.4	2.3693 µg/L	2.3693 ppb	18:38:54
3	Ti 334.940†	641185.4	620570.7	1372.3 µg/L	1372.3 ppb	18:38:27
3	Tl 190.801†	-40.2	-16.5	24.856 µg/L	24.856 ppb	18:38:54
3	U 409.014†	-2400.1	-2246.5	-204.72 µg/L	-204.72 ppb	18:38:27
3	V 292.402†	7148.6	6965.5	82.813 µg/L	82.813 ppb	18:38:33
3	Zn 213.857†	13062.2	12111.4	276.89 µg/L	276.89 ppb	18:38:33

Mean Data: 245688003|954751|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2023095.1	103.06 %		0.850			0.82%
Sc RADIAL	57997.7	103 %		0.6			0.59%
Y 371.029	1490860.8	110.21 %		0.825			0.75%
Ag 328.068†	-1380.2	-2.1710 µg/L		0.59570	-2.1710 ppb	0.59570	27.44%
Al 396.153Radial†	79508.5	55310 µg/L		192.8	55310 ppb	192.8	0.35%
As 188.979†	14.6	32.003 µg/L		6.0503	32.003 ppb	6.0503	18.91%
B 249.677†	575.4	-38.774 µg/L		1.3902	-38.774 ppb	1.3902	3.59%
Ba 233.527†	37209.3	893.42 µg/L		29.329	893.42 ppb	29.329	3.28%
Be 313.107†	19341.0	10.938 µg/L		0.4607	10.938 ppb	0.4607	4.21%
Ca 317.933Radial†	25189.7	21517 µg/L		53.4	21517 ppb	53.4	0.25%
Cd 226.502†	379.3	-3.9270 µg/L		0.60303	-3.9270 ppb	0.60303	15.36%
Co 228.616†	1008.9	42.745 µg/L		2.5151	42.745 ppb	2.5151	5.88%
Cr 267.716†	17630.9	354.17 µg/L		14.391	354.17 ppb	14.391	4.06%
Cu 324.752†	4333.5	45.014 µg/L		1.0851	45.014 ppb	1.0851	2.41%
Fe 238.204 Radial†	15257.7	120340 µg/L		263.1	120340 ppb	263.1	0.22%
K 766.490 Radial†	12158.6	7941.0 µg/L		18.81	7941.0 ppb	18.81	0.24%
Mg 279.077 IEC†	1180.2	10421 µg/L		66.5	10421 ppb	66.5	0.64%
Mn 257.610†	1222157.6	3842.8 µg/L		97.31	3842.8 ppb	97.31	2.53%
Mo 202.031†	233.9	27.475 µg/L		1.8674	27.475 ppb	1.8674	6.80%
Na 589.592 Radial†	7199.1	2211.2 µg/L		7.82	2211.2 ppb	7.82	0.35%

Ni 231.604†	4247.7	213.25 µg/L	8.015	213.25 ppb	8.015	3.76%
P 214.914†	445.7	797.79 µg/L	48.232	797.79 ppb	48.232	6.05%
Pb 220.353†	270.1	64.334 µg/L	3.7497	64.334 ppb	3.7497	5.83%
S 181.975 Axial†	72.1	299.05 µg/L	30.360	299.05 ppb	30.360	10.15%
Sb 206.836†	10.8	4.4393 µg/L	2.48339	4.4393 ppb	2.48339	55.94%
Se 196.026†	-62.9	225.20 µg/L	10.979	225.20 ppb	10.979	4.88%
SiO2†	86806.5	17134 µg/L	532.1	17134 ppb	532.1	3.11%
Si 251.611†	105208.1	7998.1 µg/L	254.13	7998.1 ppb	254.13	3.18%
Sn 189.927†	36.9	3.8590 µg/L	1.74362	3.8590 ppb	1.74362	45.18%
Sr 421.552†	17535.2	161.76 µg/L	0.425	161.76 ppb	0.425	0.26%
Ti 334.940†	642393.2	1420.6 µg/L	41.87	1420.6 ppb	41.87	2.95%
Tl 190.801†	-21.1	19.706 µg/L	5.1542	19.706 ppb	5.1542	26.16%
U 409.014†	-2310.9	-210.04 µg/L	4.719	-210.04 ppb	4.719	2.25%
V 292.402†	7336.6	86.454 µg/L	3.1683	86.454 ppb	3.1683	3.66%
Zn 213.857†	12592.7	288.15 µg/L	9.995	288.15 ppb	9.995	3.47%

Sequence No.: 20

Sample ID: 245688004|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 316

Date Collected: 2/19/2010 18:39:04

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688004|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57444.4	57444.4	102 %			18:39:36
1	Al 396.153Radial†	83037.2	81658.3	56806 µg/L	56806	ppb	18:39:36
1	Ca 317.933Radial†	15527.9	15060.1	12864 µg/L	12864	ppb	18:39:36
1	Fe 238.204 Radial†	10854.8	10658.9	84067 µg/L	84067	ppb	18:39:57
1	K 766.490 Radial†	11712.2	11353.8	7415.4 µg/L	7415.4	ppb	18:39:36
1	Mg 279.077 IEC†	1121.8	1090.5	9657.6 µg/L	9657.6	ppb	18:39:57
1	Na 589.592 Radial†	2815.6	2296.9	705.47 µg/L	705.47	ppb	18:39:36
1	Sr 421.552†	13768.3	13512.1	124.65 µg/L	124.65	ppb	18:39:36
1	Sc 361.383	2026679.5	2026679.5	103.24 %			18:41:01
1	Y 371.029	1435113.6	1435113.6	106.09 %			18:41:01
1	Ag 328.068†	-1455.9	-1008.6	-1.5187 µg/L	-1.5187	ppb	18:41:07
1	As 188.979†	7.5	7.7	17.989 µg/L	17.989	ppb	18:41:27
1	B 249.677†	803.6	394.3	-27.406 µg/L	-27.406	ppb	18:41:07
1	Ba 233.527†	36616.5	35485.2	852.08 µg/L	852.08	ppb	18:41:07
1	Be 313.107†	10212.0	12747.5	6.9860 µg/L	6.9860	ppb	18:41:07
1	Cd 226.502†	167.7	304.1	-1.7774 µg/L	-1.7774	ppb	18:41:27
1	Co 228.616†	768.9	742.8	30.471 µg/L	30.471	ppb	18:41:27
1	Cr 267.716†	12506.1	12164.2	244.38 µg/L	244.38	ppb	18:41:07
1	Cu 324.752†	11116.2	8223.9	65.366 µg/L	65.366	ppb	18:41:07
1	Mn 257.610†	859647.8	832944.0	2619.2 µg/L	2619.2	ppb	18:41:01
1	Mo 202.031†	56.8	60.4	9.1086 µg/L	9.1086	ppb	18:41:27
1	Ni 231.604†	3161.7	2750.2	138.15 µg/L	138.15	ppb	18:41:27
1	P 214.914†	228.0	205.5	349.39 µg/L	349.39	ppb	18:41:27
1	Pb 220.353†	467.4	361.8	87.899 µg/L	87.899	ppb	18:41:27
1	S 181.975 Axial†	92.5	70.6	292.89 µg/L	292.89	ppb	18:41:27
1	Sb 206.836†	35.5	11.9	7.1422 µg/L	7.1422	ppb	18:41:27
1	Se 196.026†	-27.3	-45.7	153.30 µg/L	153.30	ppb	18:41:27
1	SiO2†	105162.8	100473.2	19832 µg/L	19832	ppb	18:41:07
1	Si 251.611†	126182.7	121914.8	9268.2 µg/L	9268.2	ppb	18:41:07
1	Sn 189.927†	14.1	13.3	-2.2860 µg/L	-2.2860	ppb	18:41:27
1	Ti 334.940†	710216.7	687768.2	1520.9 µg/L	1520.9	ppb	18:41:01
1	Tl 190.801†	-49.6	-25.6	5.7903 µg/L	5.7903	ppb	18:41:27
1	U 409.014†	-1206.0	-1091.1	-103.12 µg/L	-103.12	ppb	18:41:01
1	V 292.402†	10494.1	10209.8	109.91 µg/L	109.91	ppb	18:41:07
1	Zn 213.857†	9280.9	8455.5	193.14 µg/L	193.14	ppb	18:41:07
2	Sc RADIAL	57967.5	57967.5	103 %			18:40:02
2	Al 396.153Radial†	83160.2	81041.3	56377 µg/L	56377	ppb	18:40:02
2	Ca 317.933Radial†	15561.8	14955.5	12775 µg/L	12775	ppb	18:40:02
2	Fe 238.204 Radial†	10931.0	10636.9	83893 µg/L	83893	ppb	18:40:23
2	K 766.490 Radial†	11764.3	11300.6	7380.6 µg/L	7380.6	ppb	18:40:02
2	Mg 279.077 IEC†	1130.7	1089.2	9646.6 µg/L	9646.6	ppb	18:40:23
2	Na 589.592 Radial†	2801.3	2258.0	693.54 µg/L	693.54	ppb	18:40:02
2	Sr 421.552†	13804.3	13425.0	123.85 µg/L	123.85	ppb	18:40:02
2	Sc 361.383	2041738.9	2041738.9	104.00 %			18:41:35
2	Y 371.029	1445703.9	1445703.9	106.87 %			18:41:35
2	Ag 328.068†	-1383.8	-928.9	-0.9379 µg/L	-0.9379	ppb	18:41:40
2	As 188.979†	14.6	14.5	30.200 µg/L	30.200	ppb	18:42:01
2	B 249.677†	854.7	437.7	-25.546 µg/L	-25.546	ppb	18:41:40
2	Ba 233.527†	36908.0	35503.9	852.53 µg/L	852.53	ppb	18:41:40
2	Be 313.107†	10451.0	12904.3	7.0811 µg/L	7.0811	ppb	18:41:40
2	Cd 226.502†	148.7	284.7	-2.2462 µg/L	-2.2462	ppb	18:42:01
2	Co 228.616†	750.3	719.5	29.425 µg/L	29.425	ppb	18:42:01
2	Cr 267.716†	12607.9	12172.8	244.56 µg/L	244.56	ppb	18:41:40
2	Cu 324.752†	11150.4	8177.3	65.038 µg/L	65.038	ppb	18:41:40
2	Mn 257.610†	861884.1	828952.4	2606.6 µg/L	2606.6	ppb	18:41:35
2	Mo 202.031†	56.6	59.8	9.0411 µg/L	9.0411	ppb	18:42:01
2	Ni 231.604†	3111.2	2679.0	134.60 µg/L	134.60	ppb	18:42:01
2	P 214.914†	221.8	197.9	334.44 µg/L	334.44	ppb	18:42:01
2	Pb 220.353†	463.8	355.0	86.219 µg/L	86.219	ppb	18:42:01



2	S 181.975 Axial†	90.3	67.9	281.63 µg/L	281.63 ppb	18:42:01
2	Sb 206.836†	28.5	4.9	0.7380 µg/L	0.7380 ppb	18:42:01
2	Se 196.026†	-33.9	-51.9	144.17 µg/L	144.17 ppb	18:42:01
2	SiO2†	105819.3	100353.0	19808 µg/L	19808 ppb	18:41:40
2	Si 251.611†	126776.8	121584.5	9243.1 µg/L	9243.1 ppb	18:41:40
2	Sn 189.927†	18.6	17.5	-0.4801 µg/L	-0.4801 ppb	18:42:01
2	Ti 334.940†	713008.0	685377.9	1515.6 µg/L	1515.6 ppb	18:41:35
2	Tl 190.801†	-41.8	-17.8	15.867 µg/L	15.867 ppb	18:42:01
2	U 409.014†	-1044.2	-926.9	-89.449 µg/L	-89.449 ppb	18:41:35
2	V 292.402†	10588.4	10225.5	110.05 µg/L	110.05 ppb	18:41:40
2	Zn 213.857†	9302.4	8409.8	192.09 µg/L	192.09 ppb	18:41:40
3	Sc RADIAL	57921.5	57921.5	103 %		18:40:28
3	Al 396.153Radial†	83026.5	80975.3	56331 µg/L	56331 ppb	18:40:28
3	Ca 317.933Radial†	15567.0	14972.5	12789 µg/L	12789 ppb	18:40:28
3	Fe 238.204 Radial†	10876.5	10592.2	83540 µg/L	83540 ppb	18:40:49
3	K 766.490 Radial†	11849.3	11392.6	7440.7 µg/L	7440.7 ppb	18:40:28
3	Mg 279.077 IEC†	1130.8	1090.1	9655.0 µg/L	9655.0 ppb	18:40:49
3	Na 589.592 Radial†	2794.9	2253.9	692.27 µg/L	692.27 ppb	18:40:28
3	Sr 421.552†	13772.2	13404.4	123.66 µg/L	123.66 ppb	18:40:28
3	Sc 361.383	2014606.4	2014606.4	102.62 %		18:42:08
3	Y 371.029	1424537.3	1424537.3	105.31 %		18:42:08
3	Ag 328.068†	-1426.2	-988.2	-1.4351 µg/L	-1.4351 ppb	18:42:14
3	As 188.979†	4.6	4.9	13.005 µg/L	13.005 ppb	18:42:34
3	B 249.677†	797.0	392.5	-27.229 µg/L	-27.229 ppb	18:42:14
3	Ba 233.527†	34644.1	33775.8	811.03 µg/L	811.03 ppb	18:42:14
3	Be 313.107†	9253.3	11872.5	6.4949 µg/L	6.4949 ppb	18:42:14
3	Cd 226.502†	129.4	267.8	-2.6379 µg/L	-2.6379 ppb	18:42:34
3	Co 228.616†	675.5	656.3	26.704 µg/L	26.704 ppb	18:42:34
3	Cr 267.716†	11626.2	11379.4	228.62 µg/L	228.62 ppb	18:42:14
3	Cu 324.752†	10729.8	7911.8	63.256 µg/L	63.256 ppb	18:42:14
3	Mn 257.610†	817544.7	796907.1	2506.3 µg/L	2506.3 ppb	18:42:08
3	Mo 202.031†	42.9	47.1	7.7873 µg/L	7.7873 ppb	18:42:34
3	Ni 231.604†	2844.3	2459.3	123.64 µg/L	123.64 ppb	18:42:34
3	P 214.914†	206.9	186.3	311.85 µg/L	311.85 ppb	18:42:34
3	Pb 220.353†	451.6	349.1	84.801 µg/L	84.801 ppb	18:42:34
3	S 181.975 Axial†	89.5	68.3	283.25 µg/L	283.25 ppb	18:42:34
3	Sb 206.836†	34.8	11.4	6.8701 µg/L	6.8701 ppb	18:42:34
3	Se 196.026†	-21.7	-40.5	159.26 µg/L	159.26 ppb	18:42:34
3	SiO2†	99843.6	95900.3	18929 µg/L	18929 ppb	18:42:14
3	Si 251.611†	119610.8	116243.3	8837.0 µg/L	8837.0 ppb	18:42:14
3	Sn 189.927†	13.1	12.4	-2.6206 µg/L	-2.6206 ppb	18:42:34
3	Ti 334.940†	671707.6	654365.9	1447.0 µg/L	1447.0 ppb	18:42:08
3	Tl 190.801†	-40.1	-16.7	16.244 µg/L	16.244 ppb	18:42:34
3	U 409.014†	-1063.7	-959.4	-92.103 µg/L	-92.103 ppb	18:42:08
3	V 292.402†	9879.6	9671.8	104.57 µg/L	104.57 ppb	18:42:14
3	Zn 213.857†	8814.2	8054.5	183.83 µg/L	183.83 ppb	18:42:14

Mean Data: 245688004|954751|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	2027674.9	103.29 %		0.692				0.67%
Sc RADIAL	57777.8	102 %		0.5				0.50%
Y 371.029	1435118.3	106.09 %		0.782				0.74%
Ag 328.068†	-975.2	-1.2972 µg/L		0.31398	-1.2972 ppb		0.31398	24.20%
Al 396.153Radial†	81225.0	56504 µg/L		262.1	56504 ppb		262.1	0.46%
As 188.979†	9.0	20.398 µg/L		8.8470	20.398 ppb		8.8470	43.37%
B 249.677†	408.1	-26.727 µg/L		1.0265	-26.727 ppb		1.0265	3.84%
Ba 233.527†	34921.6	838.55 µg/L		23.830	838.55 ppb		23.830	2.84%
Be 313.107†	12508.1	6.8540 µg/L		0.31461	6.8540 ppb		0.31461	4.59%
Ca 317.933Radial†	14996.0	12809 µg/L		48.0	12809 ppb		48.0	0.37%
Cd 226.502†	285.5	-2.2205 µg/L		0.43086	-2.2205 ppb		0.43086	19.40%
Co 228.616†	706.2	28.867 µg/L		1.9446	28.867 ppb		1.9446	6.74%
Cr 267.716†	11905.5	239.19 µg/L		9.153	239.19 ppb		9.153	3.83%
Cu 324.752†	8104.3	64.554 µg/L		1.1354	64.554 ppb		1.1354	1.76%
Fe 238.204 Radial†	10629.4	83833 µg/L		268.2	83833 ppb		268.2	0.32%
K 766.490 Radial†	11349.0	7412.2 µg/L		30.18	7412.2 ppb		30.18	0.41%
Mg 279.077 IEC†	1089.9	9653.1 µg/L		5.73	9653.1 ppb		5.73	0.06%
Mn 257.610†	819601.1	2577.4 µg/L		61.90	2577.4 ppb		61.90	2.40%
Mo 202.031†	55.8	8.6457 µg/L		0.74412	8.6457 ppb		0.74412	8.61%
Na 589.592 Radial†	2269.6	697.09 µg/L		7.281	697.09 ppb		7.281	1.04%

Ni 231.604†	2629.5	132.13 µg/L	7.561	132.13 ppb	7.561	5.72%
P 214.914†	196.6	331.89 µg/L	18.899	331.89 ppb	18.899	5.69%
Pb 220.353†	355.3	86.306 µg/L	1.5506	86.306 ppb	1.5506	1.80%
S 181.975 Axial†	68.9	285.92 µg/L	6.085	285.92 ppb	6.085	2.13%
Sb 206.836†	9.4	4.9168 µg/L	3.62148	4.9168 ppb	3.62148	73.66%
Se 196.026†	-46.1	152.24 µg/L	7.603	152.24 ppb	7.603	4.99%
SiO2†	98908.8	19523 µg/L	514.4	19523 ppb	514.4	2.63%
Si 251.611†	119914.2	9116.1 µg/L	242.01	9116.1 ppb	242.01	2.65%
Sn 189.927†	14.4	-1.7956 µg/L	1.15146	-1.7956 ppb	1.15146	64.13%
Sr 421.552†	13447.2	124.05 µg/L	0.528	124.05 ppb	0.528	0.43%
Ti 334.940†	675837.3	1494.5 µg/L	41.22	1494.5 ppb	41.22	2.76%
Tl 190.801†	-20.0	12.634 µg/L	5.9295	12.634 ppb	5.9295	46.93%
U 409.014†	-992.4	-94.891 µg/L	7.2496	-94.891 ppb	7.2496	7.64%
V 292.402†	10035.7	108.17 µg/L	3.126	108.17 ppb	3.126	2.89%
Zn 213.857†	8306.6	189.69 µg/L	5.102	189.69 ppb	5.102	2.69%

Sequence No.: 21

Sample ID: 245688005|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 317

Date Collected: 2/19/2010 18:42:43

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688005|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56745.4	56745.4	100 %		18:43:16
1	Al 396.153Radial†	26808.1	26682.7	18562 µg/L	18562 ppb	18:43:16
1	Ca 317.933Radial†	6269.8	6030.9	5151.5 µg/L	5151.5 ppb	18:43:36
1	Fe 238.204 Radial†	11141.3	11075.7	87353 µg/L	87353 ppb	18:43:16
1	K 766.490 Radial†	5319.7	5131.3	3351.3 µg/L	3351.3 ppb	18:43:16
1	Mg 279.077 IEC†	455.0	440.2	3841.1 µg/L	3841.1 ppb	18:43:36
1	Na 589.592 Radial†	4990.7	4496.6	1381.1 µg/L	1381.1 ppb	18:43:16
1	Sr 421.552†	5695.6	5641.7	52.046 µg/L	52.046 ppb	18:43:16
1	Sc 361.383	2020467.1	2020467.1	102.92 %		18:44:40
1	Y 371.029	1523314.6	1523314.6	112.61 %		18:44:40
1	Ag 328.068†	-1461.1	-1018.0	-1.8480 µg/L	-1.8480 ppb	18:44:46
1	As 188.979†	11.3	11.4	25.295 µg/L	25.295 ppb	18:45:06
1	B 249.677†	688.2	284.5	-33.466 µg/L	-33.466 ppb	18:44:46
1	Ba 233.527†	17792.6	17304.7	415.49 µg/L	415.49 ppb	18:44:46
1	Be 313.107†	6215.6	8894.9	4.8158 µg/L	4.8158 ppb	18:44:46
1	Cd 226.502†	175.4	312.1	-1.9093 µg/L	-1.9093 ppb	18:45:06
1	Co 228.616†	429.5	415.4	16.282 µg/L	16.282 ppb	18:45:06
1	Cr 267.716†	16569.6	16149.6	324.39 µg/L	324.39 ppb	18:44:46
1	Cu 324.752†	4922.4	2238.9	26.757 µg/L	26.757 ppb	18:44:46
1	Mn 257.610†	710178.5	690277.4	2173.1 µg/L	2173.1 ppb	18:44:40
1	Mo 202.031†	94.5	97.2	12.838 µg/L	12.838 ppb	18:45:06
1	Ni 231.604†	3976.2	3551.0	178.13 µg/L	178.13 ppb	18:45:06
1	P 214.914†	361.9	336.3	599.09 µg/L	599.09 ppb	18:45:06
1	Pb 220.353†	269.1	170.5	39.340 µg/L	39.340 ppb	18:45:06
1	S 181.975 Axial†	40.9	20.8	86.099 µg/L	86.099 ppb	18:45:06
1	Sb 206.836†	26.0	2.7	-1.4532 µg/L	-1.4532 ppb	18:45:06
1	Se 196.026†	-43.8	-61.9	146.90 µg/L	146.90 ppb	18:45:06
1	SiO2†	89324.9	85398.0	16856 µg/L	16856 ppb	18:44:46
1	Si 251.611†	106799.1	103457.1	7865.0 µg/L	7865.0 ppb	18:44:46
1	Sn 189.927†	61.8	59.7	16.276 µg/L	16.276 ppb	18:45:06
1	Ti 334.940†	565996.4	549756.6	1216.0 µg/L	1216.0 ppb	18:44:40
1	Tl 190.801†	-39.7	-16.2	11.513 µg/L	11.513 ppb	18:45:06
1	U 409.014†	-2211.0	-2071.1	-184.53 µg/L	-184.53 ppb	18:44:40
1	V 292.402†	2991.8	2951.6	39.688 µg/L	39.688 ppb	18:44:46
1	Zn 213.857†	19149.9	18072.0	418.82 µg/L	418.82 ppb	18:44:46
2	Sc RADIAL	57060.3	57060.3	101 %		18:43:42
2	Al 396.153Radial†	26969.8	26695.5	18571 µg/L	18571 ppb	18:43:42
2	Ca 317.933Radial†	6254.8	5981.6	5109.4 µg/L	5109.4 ppb	18:44:02
2	Fe 238.204 Radial†	11128.1	11001.4	86767 µg/L	86767 ppb	18:43:42
2	K 766.490 Radial†	5318.9	5101.3	3331.7 µg/L	3331.7 ppb	18:43:42
2	Mg 279.077 IEC†	451.9	434.6	3791.6 µg/L	3791.6 ppb	18:44:02
2	Na 589.592 Radial†	4956.7	4435.5	1362.3 µg/L	1362.3 ppb	18:43:42
2	Sr 421.552†	5708.2	5622.9	51.872 µg/L	51.872 ppb	18:43:42
2	Sc 361.383	2020241.3	2020241.3	102.91 %		18:45:14
2	Y 371.029	1521177.9	1521177.9	112.45 %		18:45:14
2	Ag 328.068†	-1394.8	-953.7	-1.4099 µg/L	-1.4099 ppb	18:45:19
2	As 188.979†	5.4	5.7	15.007 µg/L	15.007 ppb	18:45:40
2	B 249.677†	634.8	232.8	-35.281 µg/L	-35.281 ppb	18:45:19
2	Ba 233.527†	17388.7	16914.1	406.11 µg/L	406.11 ppb	18:45:19
2	Be 313.107†	5977.6	8664.2	4.6815 µg/L	4.6815 ppb	18:45:19
2	Cd 226.502†	163.2	300.3	-2.1412 µg/L	-2.1412 ppb	18:45:40
2	Co 228.616†	425.9	411.9	16.140 µg/L	16.140 ppb	18:45:40
2	Cr 267.716†	16201.7	15794.0	317.24 µg/L	317.24 ppb	18:45:19
2	Cu 324.752†	4862.3	2181.0	26.297 µg/L	26.297 ppb	18:45:19
2	Mn 257.610†	706328.5	686613.4	2161.5 µg/L	2161.5 ppb	18:45:14
2	Mo 202.031†	87.1	90.0	12.112 µg/L	12.112 ppb	18:45:40
2	Ni 231.604†	3916.6	3493.5	175.26 µg/L	175.26 ppb	18:45:40
2	P 214.914†	348.9	323.7	574.52 µg/L	574.52 ppb	18:45:40
2	Pb 220.353†	274.0	175.3	40.514 µg/L	40.514 ppb	18:45:40

2	S 181.975 Axial†	37.8	17.8	73.664 µg/L	73.664 ppb	18:45:40
2	Sb 206.836†	31.7	8.3	3.6953 µg/L	3.6953 ppb	18:45:40
2	Se 196.026†	-31.0	-49.4	162.91 µg/L	162.91 ppb	18:45:40
2	SiO2†	87856.3	83980.6	16577 µg/L	16577 ppb	18:45:19
2	Si 251.611†	105135.0	101851.8	7743.0 µg/L	7743.0 ppb	18:45:19
2	Sn 189.927†	56.3	54.4	14.105 µg/L	14.105 ppb	18:45:40
2	Ti 334.940†	562737.5	546651.3	1209.1 µg/L	1209.1 ppb	18:45:14
2	Tl 190.801†	-38.0	-14.5	13.539 µg/L	13.539 ppb	18:45:40
2	U 409.014†	-2267.4	-2126.2	-189.03 µg/L	-189.03 ppb	18:45:14
2	V 292.402†	2970.4	2931.2	39.393 µg/L	39.393 ppb	18:45:19
2	Zn 213.857†	18774.7	17709.5	410.36 µg/L	410.36 ppb	18:45:19
3	Sc RADIAL	57143.4	57143.4	101 %		18:44:08
3	Al 396.153Radial†	26927.2	26614.6	18514 µg/L	18514 ppb	18:44:08
3	Ca 317.933Radial†	6258.8	5976.6	5105.1 µg/L	5105.1 ppb	18:44:28
3	Fe 238.204 Radial†	11119.5	10976.8	86574 µg/L	86574 ppb	18:44:08
3	K 766.490 Radial†	5243.1	5018.7	3277.8 µg/L	3277.8 ppb	18:44:08
3	Mg 279.077 IEC†	450.6	432.7	3775.0 µg/L	3775.0 ppb	18:44:28
3	Na 589.592 Radial†	4947.4	4419.1	1357.3 µg/L	1357.3 ppb	18:44:08
3	Sr 421.552†	5709.4	5615.9	51.807 µg/L	51.807 ppb	18:44:08
3	Sc 361.383	2022464.1	2022464.1	103.02 %		18:45:47
3	Y 371.029	1515586.0	1515586.0	112.04 %		18:45:47
3	Ag 328.068†	-1344.4	-903.3	-1.0619 µg/L	-1.0619 ppb	18:45:53
3	As 188.979†	2.6	3.0	10.137 µg/L	10.137 ppb	18:46:13
3	B 249.677†	666.1	262.4	-34.007 µg/L	-34.007 ppb	18:45:53
3	Ba 233.527†	16552.6	16084.0	386.18 µg/L	386.18 ppb	18:45:53
3	Be 313.107†	5376.2	8074.2	4.3565 µg/L	4.3565 ppb	18:45:53
3	Cd 226.502†	126.8	264.7	-3.0234 µg/L	-3.0234 ppb	18:46:13
3	Co 228.616†	376.8	363.8	14.100 µg/L	14.100 ppb	18:46:13
3	Cr 267.716†	15139.9	14746.1	296.20 µg/L	296.20 ppb	18:45:53
3	Cu 324.752†	4853.9	2167.8	26.184 µg/L	26.184 ppb	18:45:53
3	Mn 257.610†	673069.5	653575.9	2058.0 µg/L	2058.0 ppb	18:45:47
3	Mo 202.031†	91.4	94.0	12.497 µg/L	12.497 ppb	18:46:13
3	Ni 231.604†	3565.4	3148.4	158.05 µg/L	158.05 ppb	18:46:13
3	P 214.914†	324.1	299.3	526.34 µg/L	526.34 ppb	18:46:13
3	Pb 220.353†	256.5	158.0	36.311 µg/L	36.311 ppb	18:46:13
3	S 181.975 Axial†	40.7	20.6	85.438 µg/L	85.438 ppb	18:46:13
3	Sb 206.836†	29.6	6.2	2.0350 µg/L	2.0350 ppb	18:46:13
3	Se 196.026†	-26.0	-44.6	169.19 µg/L	169.19 ppb	18:46:13
3	SiO2†	83540.8	79698.0	15731 µg/L	15731 ppb	18:45:53
3	Si 251.611†	99750.0	96512.5	7337.1 µg/L	7337.1 ppb	18:45:53
3	Sn 189.927†	49.8	48.0	11.425 µg/L	11.425 ppb	18:46:13
3	Ti 334.940†	532584.4	516782.0	1143.0 µg/L	1143.0 ppb	18:45:47
3	Tl 190.801†	-43.5	-19.9	5.5639 µg/L	5.5639 ppb	18:46:13
3	U 409.014†	-2099.1	-1960.4	-175.22 µg/L	-175.22 ppb	18:45:47
3	V 292.402†	2767.0	2730.6	37.384 µg/L	37.384 ppb	18:45:53
3	Zn 213.857†	17907.3	16847.5	390.22 µg/L	390.22 ppb	18:45:53

Mean Data: 245688005|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2021057.5	102.95 %	0.062			0.06%
Sc RADIAL	56983.0	101 %	0.4			0.37%
Y 371.029	1520026.2	112.37 %	0.295			0.26%
Ag 328.068†	-958.4	-1.4400 µg/L	0.39392	-1.4400 ppb	0.39392	27.36%
Al 396.153Radial†	26664.3	18549 µg/L	30.3	18549 ppb	30.3	0.16%
As 188.979†	6.7	16.813 µg/L	7.7388	16.813 ppb	7.7388	46.03%
B 249.677†	259.9	-34.252 µg/L	0.9318	-34.252 ppb	0.9318	2.72%
Ba 233.527†	16767.6	402.59 µg/L	14.968	402.59 ppb	14.968	3.72%
Be 313.107†	8544.4	4.6179 µg/L	0.23617	4.6179 ppb	0.23617	5.11%
Ca 317.933Radial†	5996.4	5122.0 µg/L	25.62	5122.0 ppb	25.62	0.50%
Cd 226.502†	292.4	-2.3580 µg/L	0.58786	-2.3580 ppb	0.58786	24.93%
Co 228.616†	397.1	15.507 µg/L	1.2208	15.507 ppb	1.2208	7.87%
Cr 267.716†	15563.2	312.61 µg/L	14.657	312.61 ppb	14.657	4.69%
Cu 324.752†	2195.9	26.413 µg/L	0.3032	26.413 ppb	0.3032	1.15%
Fe 238.204 Radial†	11018.0	86898 µg/L	405.9	86898 ppb	405.9	0.47%
K 766.490 Radial†	5083.7	3320.3 µg/L	38.09	3320.3 ppb	38.09	1.15%
Mg 279.077 IEC†	435.8	3802.6 µg/L	34.41	3802.6 ppb	34.41	0.90%
Mn 257.610†	676822.2	2130.9 µg/L	63.34	2130.9 ppb	63.34	2.97%
Mo 202.031†	93.7	12.482 µg/L	0.3628	12.482 ppb	0.3628	2.91%
Na 589.592 Radial†	4450.4	1366.9 µg/L	12.54	1366.9 ppb	12.54	0.92%

Ni 231.604†	3397.6	170.48 µg/L	10.856	170.48 ppb	10.856	6.37%
P 214.914†	319.7	566.65 µg/L	37.010	566.65 ppb	37.010	6.53%
Pb 220.353†	167.9	38.722 µg/L	2.1687	38.722 ppb	2.1687	5.60%
S 181.975 Axial†	19.7	81.734 µg/L	6.9961	81.734 ppb	6.9961	8.56%
Sb 206.836†	5.7	1.4257 µg/L	2.62778	1.4257 ppb	2.62778	184.31%
Se 196.026†	-52.0	159.67 µg/L	11.495	159.67 ppb	11.495	7.20%
SiO2†	83025.5	16388 µg/L	585.8	16388 ppb	585.8	3.57%
Si 251.611†	100607.1	7648.3 µg/L	276.40	7648.3 ppb	276.40	3.61%
Sn 189.927†	54.0	13.935 µg/L	2.4297	13.935 ppb	2.4297	17.44%
Sr 421.552†	5626.8	51.908 µg/L	0.1233	51.908 ppb	0.1233	0.24%
Ti 334.940†	537729.9	1189.4 µg/L	40.28	1189.4 ppb	40.28	3.39%
Tl 190.801†	-16.9	10.205 µg/L	4.1453	10.205 ppb	4.1453	40.62%
U 409.014†	-2052.6	-182.93 µg/L	7.040	-182.93 ppb	7.040	3.85%
V 292.402†	2871.1	38.822 µg/L	1.2536	38.822 ppb	1.2536	3.23%
Zn 213.857†	17543.0	406.46 µg/L	14.691	406.46 ppb	14.691	3.61%

Sequence No.: 22

Sample ID: 245688006|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 318

Date Collected: 2/19/2010 18:46:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688006|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57545.1	57545.1	102 %		18:46:55
1	Al 396.153Radial†	45262.9	44430.0	30908 µg/L	30908 ppb	18:46:55
1	Ca 317.933Radial†	10770.7	10363.0	8851.9 µg/L	8851.9 ppb	18:47:16
1	Fe 238.204 Radial†	9713.2	9519.5	75080 µg/L	75080 ppb	18:47:16
1	K 766.490 Radial†	10913.5	10549.5	6890.0 µg/L	6890.0 ppb	18:46:55
1	Mg 279.077 IEC†	813.6	786.0	6945.1 µg/L	6945.1 ppb	18:47:16
1	Na 589.592 Radial†	1363.2	866.1	266.03 µg/L	266.03 ppb	18:46:55
1	Sr 421.552†	11360.0	11124.0	102.62 µg/L	102.62 ppb	18:46:55
1	Sc 361.383	2008598.3	2008598.3	102.32 %		18:48:19
1	Y 371.029	1395067.8	1395067.8	103.13 %		18:48:19
1	Ag 328.068†	-1309.1	-877.8	-0.7295 µg/L	-0.7295 ppb	18:48:25
1	As 188.979†	8.6	8.9	19.831 µg/L	19.831 ppb	18:48:45
1	B 249.677†	897.9	493.5	-18.958 µg/L	-18.958 ppb	18:48:25
1	Ba 233.527†	20676.0	20224.9	485.83 µg/L	485.83 ppb	18:48:25
1	Be 313.107†	7222.7	9914.8	4.7194 µg/L	4.7194 ppb	18:48:25
1	Cd 226.502†	175.7	313.4	-0.6313 µg/L	-0.6313 ppb	18:48:45
1	Co 228.616†	921.5	898.7	34.319 µg/L	34.319 ppb	18:48:45
1	Cr 267.716†	3329.3	3304.3	66.468 µg/L	66.468 ppb	18:48:25
1	Cu 324.752†	15105.2	12219.4	90.198 µg/L	90.198 ppb	18:48:25
1	Mn 257.610†	764577.7	747522.2	2350.6 µg/L	2350.6 ppb	18:48:19
1	Mo 202.031†	3.5	8.8	3.7104 µg/L	3.7104 ppb	18:48:45
1	Ni 231.604†	1057.2	720.9	36.867 µg/L	36.867 ppb	18:48:45
1	P 214.914†	397.5	373.1	678.27 µg/L	678.27 ppb	18:48:45
1	Pb 220.353†	786.1	677.4	163.35 µg/L	163.35 ppb	18:48:45
1	S 181.975 Axial†	150.1	127.7	529.76 µg/L	529.76 ppb	18:48:45
1	Sb 206.836†	31.6	8.4	6.2204 µg/L	6.2204 ppb	18:48:45
1	Se 196.026†	-24.0	-42.8	136.39 µg/L	136.39 ppb	18:48:45
1	SiO2†	100714.2	97042.2	19155 µg/L	19155 ppb	18:48:25
1	Si 251.611†	120625.8	117584.0	8939.0 µg/L	8939.0 ppb	18:48:25
1	Sn 189.927†	-3.8	-4.1	-8.9482 µg/L	-8.9482 ppb	18:48:45
1	Ti 334.940†	1414567.4	1382363.9	3057.7 µg/L	3057.7 ppb	18:48:19
1	Tl 190.801†	-56.9	-33.2	5.2808 µg/L	5.2808 ppb	18:48:45
1	U 409.014†	274.8	345.7	17.746 µg/L	17.746 ppb	18:48:25
1	V 292.402†	16555.6	16225.5	167.15 µg/L	167.15 ppb	18:48:25
1	Zn 213.857†	8440.8	7715.2	176.76 µg/L	176.76 ppb	18:48:25
2	Sc RADIAL	57663.9	57663.9	102 %		18:47:21
2	Al 396.153Radial†	45261.6	44337.3	30843 µg/L	30843 ppb	18:47:21
2	Ca 317.933Radial†	10790.0	10360.1	8849.4 µg/L	8849.4 ppb	18:47:42
2	Fe 238.204 Radial†	9744.7	9530.7	75169 µg/L	75169 ppb	18:47:42
2	K 766.490 Radial†	10948.1	10561.4	6897.8 µg/L	6897.8 ppb	18:47:21
2	Mg 279.077 IEC†	809.8	780.6	6896.9 µg/L	6896.9 ppb	18:47:42
2	Na 589.592 Radial†	1361.7	861.9	264.72 µg/L	264.72 ppb	18:47:21
2	Sr 421.552†	11356.7	11097.8	102.38 µg/L	102.38 ppb	18:47:21
2	Sc 361.383	2003921.3	2003921.3	102.08 %		18:48:52
2	Y 371.029	1391092.7	1391092.7	102.83 %		18:48:52
2	Ag 328.068†	-1306.4	-878.2	-0.7188 µg/L	-0.7188 ppb	18:48:58
2	As 188.979†	10.7	11.0	23.571 µg/L	23.571 ppb	18:49:19
2	B 249.677†	858.7	457.1	-20.488 µg/L	-20.488 ppb	18:48:58
2	Ba 233.527†	20644.2	20241.0	486.22 µg/L	486.22 ppb	18:48:58
2	Be 313.107†	7120.6	9831.3	4.6737 µg/L	4.6737 ppb	18:48:58
2	Cd 226.502†	163.4	301.8	-0.9308 µg/L	-0.9308 ppb	18:49:19
2	Co 228.616†	897.0	876.8	33.346 µg/L	33.346 ppb	18:49:19
2	Cr 267.716†	3333.2	3315.7	66.697 µg/L	66.697 ppb	18:48:58
2	Cu 324.752†	15074.7	12224.0	90.240 µg/L	90.240 ppb	18:48:58
2	Mn 257.610†	760791.0	745556.7	2344.4 µg/L	2344.4 ppb	18:48:52
2	Mo 202.031†	-2.7	2.7	3.1216 µg/L	3.1216 ppb	18:49:19
2	Ni 231.604†	1054.1	720.3	36.839 µg/L	36.839 ppb	18:49:19
2	P 214.914†	412.3	388.5	708.64 µg/L	708.64 ppb	18:49:19
2	Pb 220.353†	785.4	678.5	163.60 µg/L	163.60 ppb	18:49:19

2	S 181.975 Axial†	155.0	132.9	551.20 µg/L	551.20 ppb	18:49:19
2	Sb 206.836†	32.9	9.7	7.3818 µg/L	7.3818 ppb	18:49:19
2	Se 196.026†	-15.6	-34.6	148.26 µg/L	148.26 ppb	18:49:19
2	SiO2†	100261.3	96828.3	19113 µg/L	19113 ppb	18:48:58
2	Si 251.611†	120028.5	117274.0	8915.4 µg/L	8915.4 ppb	18:48:58
2	Sn 189.927†	-3.7	-4.0	-8.9307 µg/L	-8.9307 ppb	18:49:19
2	Ti 334.940†	1406551.6	1377738.0	3047.5 µg/L	3047.5 ppb	18:48:52
2	Tl 190.801†	-48.7	-25.4	15.370 µg/L	15.370 ppb	18:49:19
2	U 409.014†	300.4	371.4	19.869 µg/L	19.869 ppb	18:48:58
2	V 292.402†	16639.9	16345.9	168.33 µg/L	168.33 ppb	18:48:58
2	Zn 213.857†	8392.8	7687.5	176.11 µg/L	176.11 ppb	18:48:58
3	Sc RADIAL	58098.9	58098.9	103 %		18:47:47
3	Al 396.153Radial†	45468.8	44206.7	30753 µg/L	30753 ppb	18:47:47
3	Ca 317.933Radial†	10718.9	10211.9	8722.7 µg/L	8722.7 ppb	18:48:08
3	Fe 238.204 Radial†	9686.5	9402.6	74158 µg/L	74158 ppb	18:48:08
3	K 766.490 Radial†	10985.8	10517.6	6869.2 µg/L	6869.2 ppb	18:47:47
3	Mg 279.077 IEC†	813.6	778.4	6878.2 µg/L	6878.2 ppb	18:48:08
3	Na 589.592 Radial†	1366.2	856.3	263.01 µg/L	263.01 ppb	18:47:47
3	Sr 421.552†	11391.3	11048.1	101.92 µg/L	101.92 ppb	18:47:47
3	Sc 361.383	2009799.6	2009799.6	102.38 %		18:49:25
3	Y 371.029	1394936.8	1394936.8	103.12 %		18:49:25
3	Ag 328.068†	-1320.4	-888.1	-0.9272 µg/L	-0.9272 ppb	18:49:31
3	As 188.979†	4.2	4.6	12.064 µg/L	12.064 ppb	18:49:51
3	B 249.677†	885.2	480.5	-19.012 µg/L	-19.012 ppb	18:49:31
3	Ba 233.527†	19517.0	19080.8	458.34 µg/L	458.34 ppb	18:49:31
3	Be 313.107†	6419.4	9126.0	4.3083 µg/L	4.3083 ppb	18:49:31
3	Cd 226.502†	129.8	268.5	-1.6515 µg/L	-1.6515 ppb	18:49:51
3	Co 228.616†	800.5	780.0	29.256 µg/L	29.256 ppb	18:49:51
3	Cr 267.716†	3112.6	3090.7	62.170 µg/L	62.170 ppb	18:49:31
3	Cu 324.752†	14346.0	11469.0	85.172 µg/L	85.172 ppb	18:49:31
3	Mn 257.610†	731691.9	714953.5	2248.5 µg/L	2248.5 ppb	18:49:25
3	Mo 202.031†	-0.1	5.3	3.3357 µg/L	3.3357 ppb	18:49:51
3	Ni 231.604†	976.1	641.1	32.880 µg/L	32.880 ppb	18:49:51
3	P 214.914†	379.2	355.1	643.70 µg/L	643.70 ppb	18:49:51
3	Pb 220.353†	746.4	638.1	153.84 µg/L	153.84 ppb	18:49:51
3	S 181.975 Axial†	146.6	124.2	515.21 µg/L	515.21 ppb	18:49:51
3	Sb 206.836†	17.6	-5.3	-6.3561 µg/L	-6.3561 ppb	18:49:51
3	Se 196.026†	-16.6	-35.6	144.14 µg/L	144.14 ppb	18:49:51
3	SiO2†	95345.6	91739.5	18108 µg/L	18108 ppb	18:49:31
3	Si 251.611†	114094.9	111134.3	8448.6 µg/L	8448.6 ppb	18:49:31
3	Sn 189.927†	-0.2	-0.6	-7.3755 µg/L	-7.3755 ppb	18:49:51
3	Ti 334.940†	1346050.1	1314611.6	2907.8 µg/L	2907.8 ppb	18:49:25
3	Tl 190.801†	-55.8	-32.1	4.8940 µg/L	4.8940 ppb	18:49:51
3	U 409.014†	171.1	244.3	9.4534 µg/L	9.4534 ppb	18:49:31
3	V 292.402†	15550.5	15234.1	157.36 µg/L	157.36 ppb	18:49:31
3	Zn 213.857†	7969.5	7250.0	165.92 µg/L	165.92 ppb	18:49:31

Mean Data: 245688006|954751|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2007439.7	102.26 %		0.158			0.15%
Sc RADIAL	57769.3	102 %		0.5			0.50%
Y 371.029	1393699.1	103.03 %		0.167			0.16%
Ag 328.068†	-881.4	-0.7918 µg/L		0.11737	-0.7918 ppb	0.11737	14.82%
Al 396.153Radial†	44324.7	30835 µg/L		78.0	30835 ppb	78.0	0.25%
As 188.979†	8.2	18.489 µg/L		5.8699	18.489 ppb	5.8699	31.75%
B 249.677†	477.0	-19.486 µg/L		0.8683	-19.486 ppb	0.8683	4.46%
Ba 233.527†	19848.9	476.80 µg/L		15.982	476.80 ppb	15.982	3.35%
Be 313.107†	9624.0	4.5671 µg/L		0.22529	4.5671 ppb	0.22529	4.93%
Ca 317.933Radial†	10311.7	8808.0 µg/L		73.85	8808.0 ppb	73.85	0.84%
Cd 226.502†	294.6	-1.0712 µg/L		0.52438	-1.0712 ppb	0.52438	48.95%
Co 228.616†	851.8	32.307 µg/L		2.6869	32.307 ppb	2.6869	8.32%
Cr 267.716†	3236.9	65.112 µg/L		2.5500	65.112 ppb	2.5500	3.92%
Cu 324.752†	11970.8	88.537 µg/L		2.9142	88.537 ppb	2.9142	3.29%
Fe 238.204 Radial†	9484.3	74802 µg/L		559.5	74802 ppb	559.5	0.75%
K 766.490 Radial†	10542.8	6885.7 µg/L		14.77	6885.7 ppb	14.77	0.21%
Mg 279.077 IEC†	781.6	6906.8 µg/L		34.51	6906.8 ppb	34.51	0.50%
Mn 257.610†	736010.8	2314.5 µg/L		57.26	2314.5 ppb	57.26	2.47%
Mo 202.031†	5.6	3.3892 µg/L		0.29803	3.3892 ppb	0.29803	8.79%
Na 589.592 Radial†	861.5	264.59 µg/L		1.513	264.59 ppb	1.513	0.57%

Ni 231.604†	694.1	35.529 µg/L	2.2934	35.529 ppb	2.2934	6.45%
P 214.914†	372.2	676.87 µg/L	32.493	676.87 ppb	32.493	4.80%
Pb 220.353†	664.7	160.27 µg/L	5.562	160.27 ppb	5.562	3.47%
S 181.975 Axial†	128.3	532.06 µg/L	18.107	532.06 ppb	18.107	3.40%
Sb 206.836†	4.3	2.4154 µg/L	7.61845	2.4154 ppb	7.61845	315.42%
Se 196.026†	-37.6	142.93 µg/L	6.028	142.93 ppb	6.028	4.22%
SiO2†	95203.4	18792 µg/L	592.5	18792 ppb	592.5	3.15%
Si 251.611†	115330.8	8767.7 µg/L	276.53	8767.7 ppb	276.53	3.15%
Sn 189.927†	-2.9	-8.4181 µg/L	0.90299	-8.4181 ppb	0.90299	10.73%
Sr 421.552†	11090.0	102.31 µg/L	0.356	102.31 ppb	0.356	0.35%
Ti 334.940†	1358237.8	3004.3 µg/L	83.74	3004.3 ppb	83.74	2.79%
Tl 190.801†	-30.2	8.5148 µg/L	5.93963	8.5148 ppb	5.93963	69.76%
U 409.014†	320.4	15.690 µg/L	5.5040	15.690 ppb	5.5040	35.08%
V 292.402†	15935.2	164.28 µg/L	6.023	164.28 ppb	6.023	3.67%
Zn 213.857†	7550.9	172.93 µg/L	6.081	172.93 ppb	6.081	3.52%



Sequence No.: 23

Sample ID: 245688007|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 319

Date Collected: 2/19/2010 18:50:01

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688007|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58067.5	58067.5	103 %		18:50:34
1	Al 396.153Radial†	96930.3	94299.1	65599 µg/L	65599 ppb	18:50:34
1	Ca 317.933Radial†	18736.0	18017.6	15390 µg/L	15390 ppb	18:50:54
1	Fe 238.204 Radial†	13399.1	13019.8	102690 µg/L	102690 ppb	18:50:54
1	K 766.490 Radial†	20375.1	19658.6	12839 µg/L	12839 ppb	18:50:34
1	Mg 279.077 IEC†	1769.5	1708.8	15165 µg/L	15165 ppb	18:50:54
1	Na 589.592 Radial†	3712.4	3139.7	964.33 µg/L	964.33 ppb	18:50:54
1	Sr 421.552†	21490.6	20880.0	192.62 µg/L	192.62 ppb	18:50:34
1	Sc 361.383	2013406.8	2013406.8	102.56 %		18:51:59
1	Y 371.029	1472329.7	1472329.7	108.84 %		18:51:59
1	Ag 328.068†	-1746.3	-1301.0	-1.8671 µg/L	-1.8671 ppb	18:52:04
1	As 188.979†	25.5	25.3	50.504 µg/L	50.504 ppb	18:52:25
1	B 249.677†	1067.5	656.7	-26.408 µg/L	-26.408 ppb	18:52:04
1	Ba 233.527†	45905.8	44776.4	1075.3 µg/L	1075.3 ppb	18:52:04
1	Be 313.107†	18103.7	20507.3	10.776 µg/L	10.776 ppb	18:52:04
1	Cd 226.502†	241.7	377.3	-2.0436 µg/L	-2.0436 ppb	18:52:25
1	Co 228.616†	2087.2	2033.1	84.438 µg/L	84.438 ppb	18:52:25
1	Cr 267.716†	12942.8	12669.9	254.60 µg/L	254.60 ppb	18:52:04
1	Cu 324.752†	31023.2	27704.7	195.12 µg/L	195.12 ppb	18:52:04
1	Mn 257.610†	1393798.8	1359243.2	4269.5 µg/L	4269.5 ppb	18:51:59
1	Mo 202.031†	15.1	20.0	5.8633 µg/L	5.8633 ppb	18:52:25
1	Ni 231.604†	3379.0	2982.3	149.89 µg/L	149.89 ppb	18:52:25
1	P 214.914†	484.7	457.3	821.64 µg/L	821.64 ppb	18:52:25
1	Pb 220.353†	881.7	768.8	186.35 µg/L	186.35 ppb	18:52:25
1	S 181.975 Axial†	260.2	234.8	973.75 µg/L	973.75 ppb	18:52:25
1	Sb 206.836†	40.2	16.7	11.136 µg/L	11.136 ppb	18:52:25
1	Se 196.026†	-26.7	-45.3	199.17 µg/L	199.17 ppb	18:52:25
1	SiO2†	111051.9	106886.7	21098 µg/L	21098 ppb	18:52:04
1	Si 251.611†	134138.1	130477.3	9919.1 µg/L	9919.1 ppb	18:51:59
1	Sn 189.927†	-13.6	-13.6	-14.961 µg/L	-14.961 ppb	18:52:25
1	Ti 334.940†	1697320.7	1654753.3	3659.7 µg/L	3659.7 ppb	18:51:59
1	Tl 190.801†	-67.7	-43.6	10.717 µg/L	10.717 ppb	18:52:25
1	U 409.014†	-809.5	-712.2	-74.388 µg/L	-74.388 ppb	18:51:59
1	V 292.402†	20710.7	20238.2	209.85 µg/L	209.85 ppb	18:52:04
1	Zn 213.857†	10317.1	9525.0	216.78 µg/L	216.78 ppb	18:52:04
2	Sc RADIAL	58182.9	58182.9	103 %		18:51:00
2	Al 396.153Radial†	97431.1	94598.3	65808 µg/L	65808 ppb	18:51:00
2	Ca 317.933Radial†	18623.5	17872.2	15266 µg/L	15266 ppb	18:51:20
2	Fe 238.204 Radial†	13315.4	12912.7	101840 µg/L	101840 ppb	18:51:20
2	K 766.490 Radial†	20479.4	19720.6	12880 µg/L	12880 ppb	18:51:00
2	Mg 279.077 IEC†	1763.6	1699.6	15084 µg/L	15084 ppb	18:51:20
2	Na 589.592 Radial†	3701.3	3121.7	958.82 µg/L	958.82 ppb	18:51:20
2	Sr 421.552†	21609.3	20953.8	193.30 µg/L	193.30 ppb	18:51:00
2	Sc 361.383	2013388.8	2013388.8	102.56 %		18:52:32
2	Y 371.029	1471314.2	1471314.2	108.76 %		18:52:32
2	Ag 328.068†	-1755.3	-1309.9	-1.9951 µg/L	-1.9951 ppb	18:52:38
2	As 188.979†	19.8	19.8	40.599 µg/L	40.599 ppb	18:52:58
2	B 249.677†	1045.1	634.9	-26.861 µg/L	-26.861 ppb	18:52:38
2	Ba 233.527†	45403.8	44287.3	1063.6 µg/L	1063.6 ppb	18:52:38
2	Be 313.107†	17833.1	20243.5	10.627 µg/L	10.627 ppb	18:52:38
2	Cd 226.502†	259.4	394.6	-1.5194 µg/L	-1.5194 ppb	18:52:58
2	Co 228.616†	2070.4	2016.8	83.738 µg/L	83.738 ppb	18:52:58
2	Cr 267.716†	12873.1	12602.1	253.24 µg/L	253.24 ppb	18:52:38
2	Cu 324.752†	30845.9	27532.0	193.87 µg/L	193.87 ppb	18:52:38
2	Mn 257.610†	1385384.6	1351051.3	4243.8 µg/L	4243.8 ppb	18:52:32
2	Mo 202.031†	20.4	25.3	6.3431 µg/L	6.3431 ppb	18:52:58
2	Ni 231.604†	3352.7	2956.7	148.60 µg/L	148.60 ppb	18:52:58
2	P 214.914†	474.7	447.5	803.09 µg/L	803.09 ppb	18:52:58
2	Pb 220.353†	868.3	755.7	183.21 µg/L	183.21 ppb	18:52:58

2	S 181.975 Axial†	258.0	232.6	964.67 µg/L	964.67 ppb	18:52:58
2	Sb 206.836†	37.3	13.9	8.6222 µg/L	8.6222 ppb	18:52:58
2	Se 196.026†	-47.9	-66.1	167.84 µg/L	167.84 ppb	18:52:58
2	SiO2†	109789.9	105657.2	20855 µg/L	20855 ppb	18:52:38
2	Si 251.611†	133422.0	129780.2	9866.1 µg/L	9866.1 ppb	18:52:32
2	Sn 189.927†	-16.6	-16.6	-16.138 µg/L	-16.138 ppb	18:52:58
2	Ti 334.940†	1688452.0	1646120.8	3640.6 µg/L	3640.6 ppb	18:52:32
2	Tl 190.801†	-58.7	-34.8	21.814 µg/L	21.814 ppb	18:52:58
2	U 409.014†	-709.3	-614.5	-66.144 µg/L	-66.144 ppb	18:52:32
2	V 292.402†	20559.7	20091.1	208.33 µg/L	208.33 ppb	18:52:38
2	Zn 213.857†	10219.6	9430.0	214.60 µg/L	214.60 ppb	18:52:38
3	Sc RADIAL	57739.8	57739.8	102 %		18:51:26
3	Al 396.153Radial†	96781.0	94688.2	65870 µg/L	65870 ppb	18:51:26
3	Ca 317.933Radial†	18640.0	18027.1	15398 µg/L	15398 ppb	18:51:46
3	Fe 238.204 Radial†	13339.5	13035.4	102810 µg/L	102810 ppb	18:51:46
3	K 766.490 Radial†	20365.7	19761.9	12907 µg/L	12907 ppb	18:51:26
3	Mg 279.077 IEC†	1768.2	1717.3	15241 µg/L	15241 ppb	18:51:46
3	Na 589.592 Radial†	3696.3	3144.4	965.79 µg/L	965.79 ppb	18:51:46
3	Sr 421.552†	21429.3	20938.8	193.16 µg/L	193.16 ppb	18:51:26
3	Sc 361.383	2021969.8	2021969.8	103.00 %		18:53:06
3	Y 371.029	1472108.8	1472108.8	108.82 %		18:53:06
3	Ag 328.068†	-1676.6	-1226.2	-1.4121 µg/L	-1.4121 ppb	18:53:11
3	As 188.979†	20.6	20.4	41.755 µg/L	41.755 ppb	18:53:32
3	B 249.677†	1032.4	618.2	-28.077 µg/L	-28.077 ppb	18:53:11
3	Ba 233.527†	42871.7	41641.0	1000.0 µg/L	1000.0 ppb	18:53:11
3	Be 313.107†	16484.8	18860.7	9.8752 µg/L	9.8752 ppb	18:53:11
3	Cd 226.502†	195.4	331.4	-3.2198 µg/L	-3.2198 ppb	18:53:32
3	Co 228.616†	1864.5	1808.3	74.671 µg/L	74.671 ppb	18:53:32
3	Cr 267.716†	11943.1	11645.9	234.03 µg/L	234.03 ppb	18:53:11
3	Cu 324.752†	29261.9	25866.5	183.13 µg/L	183.13 ppb	18:53:11
3	Mn 257.610†	1328960.3	1290536.5	4054.4 µg/L	4054.4 ppb	18:53:06
3	Mo 202.031†	16.6	21.4	6.0051 µg/L	6.0051 ppb	18:53:32
3	Ni 231.604†	3033.0	2632.3	132.46 µg/L	132.46 ppb	18:53:32
3	P 214.914†	437.1	409.1	727.53 µg/L	727.53 ppb	18:53:32
3	Pb 220.353†	803.5	689.2	167.03 µg/L	167.03 ppb	18:53:32
3	S 181.975 Axial†	238.6	212.8	882.34 µg/L	882.34 ppb	18:53:32
3	Sb 206.836†	27.1	3.8	-0.4639 µg/L	-0.4639 ppb	18:53:32
3	Se 196.026†	-33.4	-51.8	190.38 µg/L	190.38 ppb	18:53:32
3	SiO2†	103646.4	99238.2	19588 µg/L	19588 ppb	18:53:11
3	Si 251.611†	128275.7	124231.6	9444.3 µg/L	9444.3 ppb	18:53:06
3	Sn 189.927†	-8.1	-8.2	-12.699 µg/L	-12.699 ppb	18:53:32
3	Ti 334.940†	1611634.4	1564552.2	3460.2 µg/L	3460.2 ppb	18:53:06
3	Tl 190.801†	-61.3	-37.1	16.638 µg/L	16.638 ppb	18:53:32
3	U 409.014†	-757.4	-658.3	-69.923 µg/L	-69.923 ppb	18:53:06
3	V 292.402†	19080.5	18570.0	193.57 µg/L	193.57 ppb	18:53:11
3	Zn 213.857†	9690.1	8873.7	201.58 µg/L	201.58 ppb	18:53:11

## Mean Data: 245688007|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2016255.2	102.71 %	0.252			0.25%
Sc RADIAL	57996.7	103 %	0.4			0.40%
Y 371.029	1471917.6	108.81 %	0.039			0.04%
Ag 328.068†	-1279.0	-1.7581 µg/L	0.30640	-1.7581 ppb	0.30640	17.43%
Al 396.153Radial†	94528.5	65759 µg/L	141.7	65759 ppb	141.7	0.22%
As 188.979†	21.8	44.286 µg/L	5.4160	44.286 ppb	5.4160	12.23%
B 249.677†	636.6	-27.115 µg/L	0.8630	-27.115 ppb	0.8630	3.18%
Ba 233.527†	43568.2	1046.3 µg/L	40.51	1046.3 ppb	40.51	3.87%
Be 313.107†	19870.5	10.426 µg/L	0.4830	10.426 ppb	0.4830	4.63%
Ca 317.933Radial†	17972.3	15352 µg/L	74.2	15352 ppb	74.2	0.48%
Cd 226.502†	367.8	-2.2610 µg/L	0.87075	-2.2610 ppb	0.87075	38.51%
Co 228.616†	1952.7	80.949 µg/L	5.4481	80.949 ppb	5.4481	6.73%
Cr 267.716†	12306.0	247.29 µg/L	11.507	247.29 ppb	11.507	4.65%
Cu 324.752†	27034.4	190.71 µg/L	6.588	190.71 ppb	6.588	3.45%
Fe 238.204 Radial†	12989.3	102450 µg/L	527.1	102450 ppb	527.1	0.51%
K 766.490 Radial†	19713.7	12875 µg/L	33.9	12875 ppb	33.9	0.26%
Mg 279.077 IEC†	1708.6	15163 µg/L	78.6	15163 ppb	78.6	0.52%
Mn 257.610†	1333610.3	4189.2 µg/L	117.48	4189.2 ppb	117.48	2.80%
Mo 202.031†	22.2	6.0705 µg/L	0.24646	6.0705 ppb	0.24646	4.06%
Na 589.592 Radial†	3135.3	962.98 µg/L	3.675	962.98 ppb	3.675	0.38%

Ni 231.604†	2857.1	143.65 µg/L	9.713	143.65 ppb	9.713	6.76%
P 214.914†	437.9	784.08 µg/L	49.849	784.08 ppb	49.849	6.36%
Pb 220.353†	737.9	178.86 µg/L	10.365	178.86 ppb	10.365	5.80%
S 181.975 Axial†	226.7	940.25 µg/L	50.361	940.25 ppb	50.361	5.36%
Sb 206.836†	11.5	6.4314 µg/L	6.10233	6.4314 ppb	6.10233	94.88%
Se 196.026†	-54.4	185.79 µg/L	16.157	185.79 ppb	16.157	8.70%
SiO2†	103927.3	20514 µg/L	810.7	20514 ppb	810.7	3.95%
Si 251.611†	128163.0	9743.2 µg/L	260.18	9743.2 ppb	260.18	2.67%
Sn 189.927†	-12.8	-14.599 µg/L	1.7478	-14.599 ppb	1.7478	11.97%
Sr 421.552†	20924.2	193.03 µg/L	0.360	193.03 ppb	0.360	0.19%
Ti 334.940†	1621808.8	3586.8 µg/L	110.11	3586.8 ppb	110.11	3.07%
Tl 190.801†	-38.5	16.390 µg/L	5.5525	16.390 ppb	5.5525	33.88%
U 409.014†	-661.7	-70.152 µg/L	4.1270	-70.152 ppb	4.1270	5.88%
V 292.402†	19633.1	203.92 µg/L	8.995	203.92 ppb	8.995	4.41%
Zn 213.857†	9276.2	210.99 µg/L	8.217	210.99 ppb	8.217	3.89%

Sequence No.: 24

Sample ID: 245688008|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 320

Date Collected: 2/19/2010 18:53:41

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688008|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57014.3	57014.3	101 %		18:54:14
1	Al 396.153Radial†	37661.3	37311.3	25956 µg/L	25956 ppb	18:54:14
1	Ca 317.933Radial†	16919.8	16554.7	14141 µg/L	14141 ppb	18:54:14
1	Fe 238.204 Radial†	11273.0	11153.9	87970 µg/L	87970 ppb	18:54:35
1	K 766.490 Radial†	7922.2	7685.1	5019.3 µg/L	5019.3 ppb	18:54:14
1	Mg 279.077 IEC†	644.3	625.6	5498.3 µg/L	5498.3 ppb	18:54:35
1	Na 589.592 Radial†	4797.7	4281.9	1315.1 µg/L	1315.1 ppb	18:54:14
1	Sr 421.552†	10159.1	10037.9	92.601 µg/L	92.601 ppb	18:54:14
1	Sc 361.383	1984032.7	1984032.7	101.07 %		18:55:39
1	Y 371.029	1458303.3	1458303.3	107.80 %		18:55:39
1	Ag 328.068†	-1501.1	-1083.6	-2.1388 µg/L	-2.1388 ppb	18:55:44
1	As 188.979†	10.4	10.7	23.548 µg/L	23.548 ppb	18:56:05
1	B 249.677†	721.1	329.4	-32.269 µg/L	-32.269 ppb	18:55:44
1	Ba 233.527†	19474.8	19286.6	463.11 µg/L	463.11 ppb	18:55:44
1	Be 313.107†	7289.4	10068.3	5.4858 µg/L	5.4858 ppb	18:55:44
1	Cd 226.502†	190.7	330.4	-1.6096 µg/L	-1.6096 ppb	18:56:05
1	Co 228.616†	417.1	410.8	15.931 µg/L	15.931 ppb	18:56:05
1	Cr 267.716†	6512.3	6494.0	130.47 µg/L	130.47 ppb	18:55:44
1	Cu 324.752†	10610.9	7955.3	64.156 µg/L	64.156 ppb	18:55:44
1	Mn 257.610†	703200.3	696044.1	2191.2 µg/L	2191.2 ppb	18:55:39
1	Mo 202.031†	94.1	98.4	12.980 µg/L	12.980 ppb	18:56:05
1	Ni 231.604†	2151.0	1816.0	91.647 µg/L	91.647 ppb	18:56:05
1	P 214.914†	385.4	366.0	655.99 µg/L	655.99 ppb	18:56:05
1	Pb 220.353†	549.0	452.3	108.13 µg/L	108.13 ppb	18:56:05
1	S 181.975 Axial†	49.3	29.8	123.77 µg/L	123.77 ppb	18:56:05
1	Sb 206.836†	26.1	3.4	0.5414 µg/L	0.5414 ppb	18:56:05
1	Se 196.026†	-44.0	-62.9	143.24 µg/L	143.24 ppb	18:56:05
1	SiO2†	68283.7	66172.4	13062 µg/L	13062 ppb	18:55:44
1	Si 251.611†	81162.5	79996.4	6081.5 µg/L	6081.5 ppb	18:55:44
1	Sn 189.927†	123.5	121.9	42.592 µg/L	42.592 ppb	18:56:05
1	Ti 334.940†	587440.5	581073.5	1285.2 µg/L	1285.2 ppb	18:55:39
1	Tl 190.801†	-47.0	-24.1	1.7499 µg/L	1.7499 ppb	18:56:05
1	U 409.014†	-1994.5	-1896.4	-170.65 µg/L	-170.65 ppb	18:55:39
1	V 292.402†	5397.0	5384.9	63.042 µg/L	63.042 ppb	18:55:44
1	Zn 213.857†	16948.7	16235.7	375.93 µg/L	375.93 ppb	18:55:44
2	Sc RADIAL	56420.9	56420.9	99.9 %		18:54:40
2	Al 396.153Radial†	37506.2	37548.5	26121 µg/L	26121 ppb	18:54:40
2	Ca 317.933Radial†	16770.0	16580.9	14163 µg/L	14163 ppb	18:54:40
2	Fe 238.204 Radial†	11357.4	11355.9	89563 µg/L	89563 ppb	18:55:01
2	K 766.490 Radial†	7875.9	7721.4	5042.9 µg/L	5042.9 ppb	18:54:40
2	Mg 279.077 IEC†	656.6	644.6	5666.4 µg/L	5666.4 ppb	18:55:01
2	Na 589.592 Radial†	4801.5	4335.6	1331.7 µg/L	1331.7 ppb	18:54:40
2	Sr 421.552†	10121.9	10106.5	93.234 µg/L	93.234 ppb	18:54:40
2	Sc 361.383	1993596.0	1993596.0	101.55 %		18:56:12
2	Y 371.029	1465543.0	1465543.0	108.34 %		18:56:12
2	Ag 328.068†	-1437.0	-1013.4	-1.5194 µg/L	-1.5194 ppb	18:56:18
2	As 188.979†	12.6	12.9	27.509 µg/L	27.509 ppb	18:56:38
2	B 249.677†	784.4	388.3	-30.699 µg/L	-30.699 ppb	18:56:18
2	Ba 233.527†	19621.6	19338.7	464.36 µg/L	464.36 ppb	18:56:18
2	Be 313.107†	7189.7	9935.5	5.4074 µg/L	5.4074 ppb	18:56:18
2	Cd 226.502†	156.4	295.7	-2.6576 µg/L	-2.6576 ppb	18:56:38
2	Co 228.616†	417.5	409.2	15.859 µg/L	15.859 ppb	18:56:38
2	Cr 267.716†	6569.5	6519.5	130.98 µg/L	130.98 ppb	18:56:18
2	Cu 324.752†	10655.9	7949.3	64.338 µg/L	64.338 ppb	18:56:18
2	Mn 257.610†	707317.6	696760.8	2193.6 µg/L	2193.6 ppb	18:56:12
2	Mo 202.031†	91.9	95.8	12.785 µg/L	12.785 ppb	18:56:38
2	Ni 231.604†	2132.7	1787.8	90.262 µg/L	90.262 ppb	18:56:38
2	P 214.914†	380.7	359.5	641.76 µg/L	641.76 ppb	18:56:38
2	Pb 220.353†	543.0	443.8	106.02 µg/L	106.02 ppb	18:56:38

2	S 181.975 Axial†	45.5	25.8	107.16 µg/L	107.16 ppb	18:56:38
2	Sb 206.836†	29.0	6.0	2.9795 µg/L	2.9795 ppb	18:56:38
2	Se 196.026†	-41.1	-59.8	151.78 µg/L	151.78 ppb	18:56:38
2	SiO2†	68675.6	66234.2	13074 µg/L	13074 ppb	18:56:18
2	Si 251.611†	81496.5	79940.1	6077.2 µg/L	6077.2 ppb	18:56:18
2	Sn 189.927†	110.7	108.7	36.883 µg/L	36.883 ppb	18:56:38
2	Ti 334.940†	589747.7	580557.2	1284.1 µg/L	1284.1 ppb	18:56:12
2	Tl 190.801†	-43.6	-20.5	6.6164 µg/L	6.6164 ppb	18:56:38
2	U 409.014†	-2059.8	-1951.2	-175.43 µg/L	-175.43 ppb	18:56:12
2	V 292.402†	5400.9	5363.1	63.012 µg/L	63.012 ppb	18:56:18
2	Zn 213.857†	16999.1	16204.9	375.13 µg/L	375.13 ppb	18:56:18
3	Sc RADIAL	56255.4	56255.4	99.6 %		18:55:06
3	Al 396.153Radial†	37762.4	37916.3	26376 µg/L	26376 ppb	18:55:06
3	Ca 317.933Radial†	16818.0	16678.6	14247 µg/L	14247 ppb	18:55:06
3	Fe 238.204 Radial†	11404.6	11436.8	90201 µg/L	90201 ppb	18:55:26
3	K 766.490 Radial†	7907.9	7776.7	5079.1 µg/L	5079.1 ppb	18:55:06
3	Mg 279.077 IEC†	655.1	645.1	5669.8 µg/L	5669.8 ppb	18:55:26
3	Na 589.592 Radial†	4794.5	4342.8	1333.9 µg/L	1333.9 ppb	18:55:06
3	Sr 421.552†	10162.1	10176.7	93.882 µg/L	93.882 ppb	18:55:06
3	Sc 361.383	2006978.5	2006978.5	102.23 %		18:56:46
3	Y 371.029	1469662.3	1469662.3	108.64 %		18:56:46
3	Ag 328.068†	-1392.2	-960.2	-1.1136 µg/L	-1.1136 ppb	18:56:51
3	As 188.979†	10.8	11.1	24.302 µg/L	24.302 ppb	18:57:12
3	B 249.677†	703.2	303.7	-34.498 µg/L	-34.498 ppb	18:56:51
3	Ba 233.527†	18337.2	17953.5	431.10 µg/L	431.10 ppb	18:56:51
3	Be 313.107†	6484.2	9198.2	4.9966 µg/L	4.9966 ppb	18:56:51
3	Cd 226.502†	136.0	274.8	-3.2617 µg/L	-3.2617 ppb	18:57:12
3	Co 228.616†	371.0	360.9	13.820 µg/L	13.820 ppb	18:57:12
3	Cr 267.716†	6072.5	5990.2	120.34 µg/L	120.34 ppb	18:56:51
3	Cu 324.752†	10199.1	7432.5	61.053 µg/L	61.053 ppb	18:56:51
3	Mn 257.610†	676543.2	662014.7	2084.9 µg/L	2084.9 ppb	18:56:46
3	Mo 202.031†	81.6	85.1	11.766 µg/L	11.766 ppb	18:57:12
3	Ni 231.604†	1931.0	1576.4	79.737 µg/L	79.737 ppb	18:57:12
3	P 214.914†	342.7	319.9	563.11 µg/L	563.11 ppb	18:57:12
3	Pb 220.353†	496.1	394.3	93.972 µg/L	93.972 ppb	18:57:12
3	S 181.975 Axial†	37.6	17.8	73.915 µg/L	73.915 ppb	18:57:12
3	Sb 206.836†	22.6	-0.4	-2.7895 µg/L	-2.7895 ppb	18:57:12
3	Se 196.026†	-28.4	-47.0	171.40 µg/L	171.40 ppb	18:57:12
3	SiO2†	64806.0	61998.2	12238 µg/L	12238 ppb	18:56:51
3	Si 251.611†	76946.9	74954.7	5698.2 µg/L	5698.2 ppb	18:56:51
3	Sn 189.927†	101.1	98.5	32.517 µg/L	32.517 ppb	18:57:12
3	Ti 334.940†	561258.9	548818.6	1213.9 µg/L	1213.9 ppb	18:56:46
3	Tl 190.801†	-46.5	-23.1	2.3220 µg/L	2.3220 ppb	18:57:12
3	U 409.014†	-1893.7	-1775.2	-160.90 µg/L	-160.90 ppb	18:56:46
3	V 292.402†	4985.0	4920.9	58.760 µg/L	58.760 ppb	18:56:51
3	Zn 213.857†	16040.4	15155.5	350.53 µg/L	350.53 ppb	18:56:51

Mean Data: 245688008|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1994869.1	101.62 %	0.587			0.58%
Sc RADIAL	56563.5	100 %	0.7			0.71%
Y 371.029	1464502.9	108.26 %	0.425			0.39%
Ag 328.068†	-1019.1	-1.5906 µg/L	0.51629	-1.5906 ppb	0.51629	32.46%
Al 396.153Radial†	37592.0	26151 µg/L	212.1	26151 ppb	212.1	0.81%
As 188.979†	11.5	25.119 µg/L	2.1032	25.119 ppb	2.1032	8.37%
B 249.677†	340.4	-32.489 µg/L	1.9089	-32.489 ppb	1.9089	5.88%
Ba 233.527†	18859.6	452.86 µg/L	18.853	452.86 ppb	18.853	4.16%
Be 313.107†	9734.0	5.2966 µg/L	0.26278	5.2966 ppb	0.26278	4.96%
Ca 317.933Radial†	16604.7	14183 µg/L	55.8	14183 ppb	55.8	0.39%
Cd 226.502†	300.3	-2.5096 µg/L	0.83589	-2.5096 ppb	0.83589	33.31%
Co 228.616†	393.6	15.203 µg/L	1.1984	15.203 ppb	1.1984	7.88%
Cr 267.716†	6334.6	127.26 µg/L	5.997	127.26 ppb	5.997	4.71%
Cu 324.752†	7779.0	63.182 µg/L	1.8461	63.182 ppb	1.8461	2.92%
Fe 238.204 Radial†	11315.5	89245 µg/L	1149.2	89245 ppb	1149.2	1.29%
K 766.490 Radial†	7727.7	5047.1 µg/L	30.12	5047.1 ppb	30.12	0.60%
Mg 279.077 IEC†	638.4	5611.5 µg/L	98.08	5611.5 ppb	98.08	1.75%
Mn 257.610†	684939.9	2156.5 µg/L	62.08	2156.5 ppb	62.08	2.88%
Mo 202.031†	93.1	12.510 µg/L	0.6521	12.510 ppb	0.6521	5.21%
Na 589.592 Radial†	4320.1	1326.9 µg/L	10.23	1326.9 ppb	10.23	0.77%

Ni 231.604†	1726.7	87.215 µg/L	6.5136	87.215 ppb	6.5136	7.47%
P 214.914†	348.5	620.29 µg/L	50.028	620.29 ppb	50.028	8.07%
Pb 220.353†	430.1	102.71 µg/L	7.637	102.71 ppb	7.637	7.44%
S 181.975 Axial†	24.5	101.61 µg/L	25.385	101.61 ppb	25.385	24.98%
Sb 206.836†	3.0	0.2438 µg/L	2.89598	0.2438 ppb	2.89598	>999.9%
Se 196.026†	-56.6	155.47 µg/L	14.439	155.47 ppb	14.439	9.29%
SiO2†	64801.6	12791 µg/L	479.3	12791 ppb	479.3	3.75%
Si 251.611†	78297.1	5952.3 µg/L	220.06	5952.3 ppb	220.06	3.70%
Sn 189.927†	109.7	37.330 µg/L	5.0523	37.330 ppb	5.0523	13.53%
Sr 421.552†	10107.0	93.239 µg/L	0.6403	93.239 ppb	0.6403	0.69%
Ti 334.940†	570149.8	1261.1 µg/L	40.87	1261.1 ppb	40.87	3.24%
Tl 190.801†	-22.6	3.5628 µg/L	2.65995	3.5628 ppb	2.65995	74.66%
U 409.014†	-1874.3	-168.99 µg/L	7.407	-168.99 ppb	7.407	4.38%
V 292.402†	5222.9	61.605 µg/L	2.4637	61.605 ppb	2.4637	4.00%
Zn 213.857†	15865.4	367.20 µg/L	14.439	367.20 ppb	14.439	3.93%

Sequence No.: 25  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/19/2010 18:57:21  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58333.6	58333.6	103 %		18:58:00
1	Al 396.153Radial†	7365.1	7125.7	4946.5 µg/L	4946.5 ppb	18:58:00
1	Ca 317.933Radial†	6192.0	5785.6	4942.0 µg/L	4942.0 ppb	18:58:20
1	Fe 238.204 Radial†	674.6	636.7	5032.7 µg/L	5032.7 ppb	18:58:20
1	K 766.490 Radial†	7915.6	7501.2	4899.2 µg/L	4899.2 ppb	18:58:00
1	Mg 279.077 IEC†	598.6	566.9	5070.8 µg/L	5070.8 ppb	18:58:20
1	Na 589.592 Radial†	33942.4	32400.8	9951.7 µg/L	9951.7 ppb	18:58:00
1	Sr 421.552†	54192.3	52456.0	483.91 µg/L	483.91 ppb	18:58:00
1	Sc 361.383	2038441.2	2038441.2	103.84 %		18:59:24
1	Y 371.029	1399434.4	1399434.4	103.45 %		18:59:24
1	Ag 328.068†	68624.6	66490.5	496.15 µg/L	496.15 ppb	18:59:29
1	As 188.979†	294.5	284.1	508.19 µg/L	508.19 ppb	18:59:50
1	B 249.677†	12921.2	12059.6	489.70 µg/L	489.70 ppb	18:59:29
1	Ba 233.527†	21646.3	20863.5	501.78 µg/L	501.78 ppb	18:59:29
1	Be 313.107†	864552.3	835462.4	495.66 µg/L	495.66 ppb	18:59:24
1	Cd 226.502†	20886.7	20256.6	505.16 µg/L	505.16 ppb	18:59:29
1	Co 228.616†	11617.5	11186.3	506.03 µg/L	506.03 ppb	18:59:29
1	Cr 267.716†	26041.8	25130.0	505.06 µg/L	505.06 ppb	18:59:29
1	Cu 324.752†	81610.2	76051.0	497.12 µg/L	497.12 ppb	18:59:29
1	Mn 257.610†	166517.1	160620.2	503.45 µg/L	503.45 ppb	18:59:24
1	Mo 202.031†	5420.2	5225.2	511.88 µg/L	511.88 ppb	18:59:50
1	Ni 231.604†	10851.5	10138.2	504.85 µg/L	504.85 ppb	18:59:29
1	P 214.914†	1356.9	1291.4	2509.3 µg/L	2509.3 ppb	18:59:50
1	Pb 220.353†	2274.9	2099.9	510.66 µg/L	510.66 ppb	18:59:50
1	S 181.975 Axial†	272.1	243.1	1008.0 µg/L	1008.0 ppb	18:59:50
1	Sb 206.836†	600.9	556.2	512.79 µg/L	512.79 ppb	18:59:50
1	Se 196.026†	401.3	367.2	523.52 µg/L	523.52 ppb	18:59:50
1	SiO2†	29690.3	27201.7	5369.3 µg/L	5369.3 ppb	18:59:29
1	Si 251.611†	34620.8	33030.9	2511.1 µg/L	2511.1 ppb	18:59:29
1	Sn 189.927†	1274.6	1227.1	517.53 µg/L	517.53 ppb	18:59:50
1	Ti 334.940†	232175.5	223421.5	493.94 µg/L	493.94 ppb	18:59:24
1	Tl 190.801†	380.4	388.7	510.84 µg/L	510.84 ppb	18:59:50
1	U 409.014†	6240.2	6086.8	504.71 µg/L	504.71 ppb	18:59:29
1	V 292.402†	53236.3	51313.9	506.29 µg/L	506.29 ppb	18:59:29
1	Zn 213.857†	23013.8	21629.0	503.89 µg/L	503.89 ppb	18:59:29
2	Sc RADIAL	58344.7	58344.7	103 %		18:58:26
2	Al 396.153Radial†	7317.7	7078.4	4913.9 µg/L	4913.9 ppb	18:58:26
2	Ca 317.933Radial†	6132.7	5727.0	4891.9 µg/L	4891.9 ppb	18:58:46
2	Fe 238.204 Radial†	665.9	628.2	4965.5 µg/L	4965.5 ppb	18:58:46
2	K 766.490 Radial†	7920.4	7504.4	4901.2 µg/L	4901.2 ppb	18:58:26
2	Mg 279.077 IEC†	590.4	558.9	4999.2 µg/L	4999.2 ppb	18:58:46
2	Na 589.592 Radial†	33811.9	32268.1	9910.9 µg/L	9910.9 ppb	18:58:26
2	Sr 421.552†	54099.6	52356.2	482.99 µg/L	482.99 ppb	18:58:26
2	Sc 361.383	2035256.6	2035256.6	103.67 %		18:59:57
2	Y 371.029	1396273.2	1396273.2	103.22 %		18:59:57
2	Ag 328.068†	68425.9	66402.2	495.48 µg/L	495.48 ppb	19:00:03
2	As 188.979†	292.9	282.9	506.17 µg/L	506.17 ppb	19:00:23
2	B 249.677†	12903.7	12062.2	489.84 µg/L	489.84 ppb	19:00:03
2	Ba 233.527†	21596.0	20847.7	501.39 µg/L	501.39 ppb	19:00:03
2	Be 313.107†	862338.3	834629.7	495.17 µg/L	495.17 ppb	18:59:57
2	Cd 226.502†	20772.6	20178.1	503.20 µg/L	503.20 ppb	19:00:03
2	Co 228.616†	11542.6	11131.5	503.54 µg/L	503.54 ppb	19:00:03
2	Cr 267.716†	25954.2	25084.7	504.15 µg/L	504.15 ppb	19:00:03
2	Cu 324.752†	81509.2	76076.5	497.28 µg/L	497.28 ppb	19:00:03
2	Mn 257.610†	166351.9	160711.8	503.73 µg/L	503.73 ppb	18:59:57
2	Mo 202.031†	5270.1	5088.7	498.51 µg/L	498.51 ppb	19:00:23
2	Ni 231.604†	10791.0	10096.2	502.76 µg/L	502.76 ppb	19:00:03
2	P 214.914†	1323.9	1261.6	2450.2 µg/L	2450.2 ppb	19:00:23
2	Pb 220.353†	2210.1	2040.8	496.26 µg/L	496.26 ppb	19:00:23

2	S 181.975 Axial†	270.0	241.5	1001.5 µg/L	1001.5 ppb	19:00:23
2	Sb 206.836†	587.9	544.6	501.96 µg/L	501.96 ppb	19:00:23
2	Se 196.026†	392.6	359.4	512.48 µg/L	512.48 ppb	19:00:23
2	SiO2†	29616.5	27175.2	5364.0 µg/L	5364.0 ppb	19:00:03
2	Si 251.611†	34657.6	33118.5	2517.7 µg/L	2517.7 ppb	19:00:03
2	Sn 189.927†	1231.7	1187.7	500.91 µg/L	500.91 ppb	19:00:23
2	Ti 334.940†	231864.1	223470.9	494.05 µg/L	494.05 ppb	18:59:57
2	Tl 190.801†	372.5	381.7	501.72 µg/L	501.72 ppb	19:00:23
2	U 409.014†	6180.9	6038.9	500.75 µg/L	500.75 ppb	19:00:03
2	V 292.402†	53024.3	51189.7	504.96 µg/L	504.96 ppb	19:00:03
2	Zn 213.857†	22918.2	21571.5	502.56 µg/L	502.56 ppb	19:00:03
3	Sc RADIAL	58456.7	58456.7	103 %		18:58:52
3	Al 396.153Radial†	7314.1	7061.4	4904.0 µg/L	4904.0 ppb	18:58:52
3	Ca 317.933Radial†	6160.3	5742.4	4905.0 µg/L	4905.0 ppb	18:59:12
3	Fe 238.204 Radial†	669.3	630.3	4980.2 µg/L	4980.2 ppb	18:59:12
3	K 766.490 Radial†	7905.3	7475.1	4882.1 µg/L	4882.1 ppb	18:58:52
3	Mg 279.077 IEC†	592.0	559.3	5000.9 µg/L	5000.9 ppb	18:59:12
3	Na 589.592 Radial†	33692.4	32089.9	9856.2 µg/L	9856.2 ppb	18:58:52
3	Sr 421.552†	53981.8	52142.0	481.02 µg/L	481.02 ppb	18:58:52
3	Sc 361.383	2047612.7	2047612.7	104.30 %		19:00:30
3	Y 371.029	1406490.5	1406490.5	103.97 %		19:00:30
3	Ag 328.068†	63103.6	60901.3	454.27 µg/L	454.27 ppb	19:00:36
3	As 188.979†	237.6	228.3	408.38 µg/L	408.38 ppb	19:00:57
3	B 249.677†	11765.8	10896.1	442.18 µg/L	442.18 ppb	19:00:36
3	Ba 233.527†	19176.1	18401.9	442.55 µg/L	442.55 ppb	19:00:36
3	Be 313.107†	782724.7	753282.0	446.91 µg/L	446.91 ppb	19:00:30
3	Cd 226.502†	18400.9	17783.3	443.41 µg/L	443.41 ppb	19:00:36
3	Co 228.616†	10109.3	9690.2	438.29 µg/L	438.29 ppb	19:00:36
3	Cr 267.716†	21969.5	21113.3	424.34 µg/L	424.34 ppb	19:00:36
3	Cu 324.752†	71747.0	66242.7	433.09 µg/L	433.09 ppb	19:00:36
3	Mn 257.610†	151555.7	145557.9	456.28 µg/L	456.28 ppb	19:00:30
3	Mo 202.031†	4263.1	4092.5	400.95 µg/L	400.95 ppb	19:00:57
3	Ni 231.604†	9465.5	8762.6	436.35 µg/L	436.35 ppb	19:00:36
3	P 214.914†	1103.2	1042.4	2021.3 µg/L	2021.3 ppb	19:00:57
3	Pb 220.353†	1887.4	1718.6	417.83 µg/L	417.83 ppb	19:00:57
3	S 181.975 Axial†	232.4	203.9	845.45 µg/L	845.45 ppb	19:00:57
3	Sb 206.836†	490.6	447.9	412.47 µg/L	412.47 ppb	19:00:57
3	Se 196.026†	335.5	302.3	432.38 µg/L	432.38 ppb	19:00:57
3	SiO2†	26801.6	24304.1	4797.3 µg/L	4797.3 ppb	19:00:36
3	Si 251.611†	31212.7	29614.1	2251.3 µg/L	2251.3 ppb	19:00:36
3	Sn 189.927†	987.7	946.6	399.24 µg/L	399.24 ppb	19:00:57
3	Ti 334.940†	208406.1	199631.3	441.31 µg/L	441.31 ppb	19:00:30
3	Tl 190.801†	322.4	331.5	435.96 µg/L	435.96 ppb	19:00:57
3	U 409.014†	5296.2	5154.8	427.29 µg/L	427.29 ppb	19:00:36
3	V 292.402†	45829.3	43982.9	433.72 µg/L	433.72 ppb	19:00:36
3	Zn 213.857†	20142.3	18776.7	437.38 µg/L	437.38 ppb	19:00:36

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2040436.8	103.94 %	0.327			0.31%
Sc RADIAL	58378.3	103 %	0.1			0.12%
Y 371.029	1400732.7	103.55 %	0.387			0.37%
Ag 328.068†	64598.0	481.97 µg/L	23.988	481.97 ppb	23.988	4.98%
QC value within limits for Ag 328.068 Recovery = 96.39%						
Al 396.153Radial†	7088.5	4921.5 µg/L	22.23	4921.5 ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.43%						
As 188.979†	265.1	474.24 µg/L	57.051	474.24 ppb	57.051	12.03%
QC value within limits for As 188.979 Recovery = 94.85%						
B 249.677†	11672.6	473.91 µg/L	27.477	473.91 ppb	27.477	5.80%
QC value within limits for B 249.677 Recovery = 94.78%						
Ba 233.527†	20037.7	481.91 µg/L	34.084	481.91 ppb	34.084	7.07%
QC value within limits for Ba 233.527 Recovery = 96.38%						
Be 313.107†	807791.4	479.25 µg/L	28.007	479.25 ppb	28.007	5.84%
QC value within limits for Be 313.107 Recovery = 95.85%						
Ca 317.933Radial†	5751.7	4913.0 µg/L	25.95	4913.0 ppb	25.95	0.53%
QC value within limits for Ca 317.933Radial Recovery = 98.26%						
Cd 226.502†	19406.0	483.92 µg/L	35.100	483.92 ppb	35.100	7.25%
QC value within limits for Cd 226.502 Recovery = 96.78%						
Co 228.616†	10669.3	482.62 µg/L	38.414	482.62 ppb	38.414	7.96%



Cr	267.716†	23776.0	477.85 µg/L	46.344	477.85 ppb	46.344	9.70%
Cu	324.752†	72790.1	475.83 µg/L	37.014	475.83 ppb	37.014	7.78%
Fe	238.204 Radial†	631.7	4992.8 µg/L	35.34	4992.8 ppb	35.34	0.71%
K	766.490 Radial†	7493.6	4894.2 µg/L	10.48	4894.2 ppb	10.48	0.21%
Mg	279.077 IEC†	561.7	5023.6 µg/L	40.85	5023.6 ppb	40.85	0.81%
Mn	257.610†	155630.0	487.82 µg/L	27.316	487.82 ppb	27.316	5.60%
Mo	202.031†	4802.1	470.44 µg/L	60.553	470.44 ppb	60.553	12.87%
Na	589.592 Radial†	32252.9	9906.3 µg/L	47.92	9906.3 ppb	47.92	0.48%
Ni	231.604†	9665.7	481.32 µg/L	38.955	481.32 ppb	38.955	8.09%
P	214.914†	1198.4	2326.9 µg/L	266.31	2326.9 ppb	266.31	11.44%
Pb	220.353†	1953.1	474.92 µg/L	49.957	474.92 ppb	49.957	10.52%
S	181.975 Axial†	229.5	951.68 µg/L	92.053	951.68 ppb	92.053	9.67%
Sb	206.836†	516.2	475.74 µg/L	55.061	475.74 ppb	55.061	11.57%
Se	196.026†	343.0	489.46 µg/L	49.737	489.46 ppb	49.737	10.16%
SiO2†		26227.0	5176.9 µg/L	328.72	5176.9 ppb	328.72	6.35%
Si	251.611†	31921.2	2426.7 µg/L	151.93	2426.7 ppb	151.93	6.26%
Sn	189.927†	1120.5	472.56 µg/L	64.040	472.56 ppb	64.040	13.55%
Sr	421.552†	52318.1	482.64 µg/L	1.480	482.64 ppb	1.480	0.31%
Ti	334.940†	215507.9	476.43 µg/L	30.416	476.43 ppb	30.416	6.38%
Tl	190.801†	367.3	482.84 µg/L	40.853	482.84 ppb	40.853	8.46%
U	409.014†	5760.1	477.59 µg/L	43.602	477.59 ppb	43.602	9.13%
V	292.402†	48828.8	481.66 µg/L	41.521	481.66 ppb	41.521	8.62%
Zn	213.857†	20659.1	481.28 µg/L	38.019	481.28 ppb	38.019	7.90%

QC value within limits for Co 228.616 Recovery = 96.52%  
 QC value within limits for Cr 267.716 Recovery = 95.57%  
 QC value within limits for Cu 324.752 Recovery = 95.17%  
 QC value within limits for Fe 238.204 Radial Recovery = 99.86%  
 QC value within limits for K 766.490 Radial Recovery = 97.88%  
 QC value within limits for Mg 279.077 IEC Recovery = 100.47%  
 QC value within limits for Mn 257.610 Recovery = 97.56%  
 QC value within limits for Mo 202.031 Recovery = 94.09%  
 QC value within limits for Na 589.592 Radial Recovery = 99.06%  
 QC value within limits for Ni 231.604 Recovery = 96.26%  
 QC value within limits for P 214.914 Recovery = 93.08%  
 QC value within limits for Pb 220.353 Recovery = 94.98%  
 QC value within limits for S 181.975 Axial Recovery = 95.17%  
 QC value within limits for Sb 206.836 Recovery = 95.15%  
 QC value within limits for Se 196.026 Recovery = 97.89%  
 QC value within limits for SiO2 Recovery = 96.81%  
 QC value within limits for Si 251.611 Recovery = 97.07%  
 QC value within limits for Sn 189.927 Recovery = 94.51%  
 QC value within limits for Sr 421.552 Recovery = 96.53%  
 QC value within limits for Ti 334.940 Recovery = 95.29%  
 QC value within limits for Tl 190.801 Recovery = 96.57%  
 QC value within limits for U 409.014 Recovery = 95.52%  
 QC value within limits for V 292.402 Recovery = 96.33%  
 QC value within limits for Zn 213.857 Recovery = 96.26%

All analyte(s) passed QC.

Sequence No.: 26  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/19/2010 19:01:06  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCB

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57423.2	57423.2	102 %		19:01:39
1	Al 396.153Radial†	-18.9	-25.9	-18.036 µg/L	-18.036 ppb	19:01:39
1	Ca 317.933Radial†	194.6	-19.8	-16.907 µg/L	-16.907 ppb	19:02:00
1	Fe 238.204 Radial†	20.3	3.4	26.844 µg/L	26.844 ppb	19:02:00
1	K 766.490 Radial†	169.3	1.6	1.0514 µg/L	1.0514 ppb	19:01:39
1	Mg 279.077 IEC†	10.7	-2.3	-20.795 µg/L	-20.795 ppb	19:02:00
1	Na 589.592 Radial†	537.1	56.3	17.279 µg/L	17.279 ppb	19:01:39
1	Sr 421.552†	21.5	-7.7	-0.0709 µg/L	-0.0709 ppb	19:01:39
1	Sc 361.383	2013251.1	2013251.1	102.55 %		19:03:02
1	Y 371.029	1385844.0	1385844.0	102.45 %		19:03:02
1	Ag 328.068†	-425.6	-13.4	-0.0944 µg/L	-0.0944 ppb	19:03:07
1	As 188.979†	1.0	1.5	2.6013 µg/L	2.6013 ppb	19:03:28
1	B 249.677†	361.7	-31.5	-1.2963 µg/L	-1.2963 ppb	19:03:28
1	Ba 233.527†	-6.9	10.3	0.2492 µg/L	0.2492 ppb	19:03:28
1	Be 313.107†	-2769.2	155.5	0.0922 µg/L	0.0922 ppb	19:03:07
1	Cd 226.502†	-136.0	9.0	0.2223 µg/L	0.2223 ppb	19:03:28
1	Co 228.616†	7.0	4.9	0.2213 µg/L	0.2213 ppb	19:03:28
1	Cr 267.716†	-45.7	5.9	0.1181 µg/L	0.1181 ppb	19:03:07
1	Cu 324.752†	2554.2	-53.2	-0.3432 µg/L	-0.3432 ppb	19:03:07
1	Mn 257.610†	-168.0	92.2	0.2930 µg/L	0.2930 ppb	19:03:28
1	Mo 202.031†	-4.8	0.6	0.0615 µg/L	0.0615 ppb	19:03:28
1	Ni 231.604†	318.0	-2.3	-0.1132 µg/L	-0.1132 ppb	19:03:28
1	P 214.914†	14.8	-0.9	-1.7488 µg/L	-1.7488 ppb	19:03:28
1	Pb 220.353†	84.3	-8.7	-2.1358 µg/L	-2.1358 ppb	19:03:28
1	S 181.975 Axial†	16.4	-2.9	-12.184 µg/L	-12.184 ppb	19:03:28
1	Sb 206.836†	29.7	6.4	5.9047 µg/L	5.9047 ppb	19:03:28
1	Se 196.026†	21.6	1.7	2.5321 µg/L	2.5321 ppb	19:03:28
1	SiO2†	1445.6	18.1	3.5679 µg/L	3.5679 ppb	19:03:07
1	Si 251.611†	358.6	39.1	2.9715 µg/L	2.9715 ppb	19:03:28
1	Sn 189.927†	6.5	5.9	2.5018 µg/L	2.5018 ppb	19:03:28
1	Ti 334.940†	319.2	136.2	0.3026 µg/L	0.3026 ppb	19:03:07
1	Tl 190.801†	-23.1	-0.1	-0.1533 µg/L	-0.1533 ppb	19:03:28
1	U 409.014†	95.4	170.1	14.129 µg/L	14.129 ppb	19:03:07
1	V 292.402†	4.5	49.1	0.4975 µg/L	0.4975 ppb	19:03:07
1	Zn 213.857†	525.8	-21.7	-0.5072 µg/L	-0.5072 ppb	19:03:28
2	Sc RADIAL	57351.0	57351.0	102 %		19:02:05
2	Al 396.153Radial†	0.6	-6.8	-4.7217 µg/L	-4.7217 ppb	19:02:05
2	Ca 317.933Radial†	191.9	-22.2	-18.945 µg/L	-18.945 ppb	19:02:26
2	Fe 238.204 Radial†	16.4	-0.4	-2.9277 µg/L	-2.9277 ppb	19:02:26
2	K 766.490 Radial†	226.8	58.4	38.151 µg/L	38.151 ppb	19:02:05
2	Mg 279.077 IEC†	4.7	-8.2	-72.904 µg/L	-72.904 ppb	19:02:26
2	Na 589.592 Radial†	474.9	-4.4	-1.3380 µg/L	-1.3380 ppb	19:02:05
2	Sr 421.552†	49.2	19.7	0.1813 µg/L	0.1813 ppb	19:02:05
2	Sc 361.383	2012182.2	2012182.2	102.50 %		19:03:34
2	Y 371.029	1385686.0	1385686.0	102.43 %		19:03:34
2	Ag 328.068†	-448.4	-35.9	-0.2659 µg/L	-0.2659 ppb	19:03:39
2	As 188.979†	-1.5	-1.0	-1.7378 µg/L	-1.7378 ppb	19:04:00
2	B 249.677†	352.5	-40.3	-1.6393 µg/L	-1.6393 ppb	19:04:00
2	Ba 233.527†	-10.2	7.1	0.1714 µg/L	0.1714 ppb	19:04:00
2	Be 313.107†	-2906.5	20.0	0.0117 µg/L	0.0117 ppb	19:03:39
2	Cd 226.502†	-139.6	5.4	0.1354 µg/L	0.1354 ppb	19:04:00
2	Co 228.616†	8.8	6.6	0.3005 µg/L	0.3005 ppb	19:04:00
2	Cr 267.716†	-48.8	2.8	0.0565 µg/L	0.0565 ppb	19:03:39
2	Cu 324.752†	2585.7	-21.1	-0.1382 µg/L	-0.1382 ppb	19:03:39
2	Mn 257.610†	-165.3	94.7	0.2992 µg/L	0.2992 ppb	19:04:00
2	Mo 202.031†	-0.6	4.7	0.4624 µg/L	0.4624 ppb	19:04:00
2	Ni 231.604†	304.3	-15.4	-0.7700 µg/L	-0.7700 ppb	19:04:00
2	P 214.914†	20.3	4.4	8.7926 µg/L	8.7926 ppb	19:04:00
2	Pb 220.353†	93.2	-0.0	-0.0043 µg/L	-0.0043 ppb	19:04:00

2	S 181.975 Axial†	10.8	-8.4	-34.884 µg/L	-34.884 ppb	19:04:00
2	Sb 206.836†	19.1	-3.9	-3.5666 µg/L	-3.5666 ppb	19:04:00
2	Se 196.026†	15.1	-4.6	-6.4360 µg/L	-6.4360 ppb	19:04:00
2	SiO2†	1460.9	33.7	6.6594 µg/L	6.6594 ppb	19:03:39
2	Si 251.611†	358.4	39.0	2.9639 µg/L	2.9639 ppb	19:04:00
2	Sn 189.927†	4.7	4.2	1.7676 µg/L	1.7676 ppb	19:04:00
2	Ti 334.940†	408.1	223.1	0.4990 µg/L	0.4990 ppb	19:03:39
2	Tl 190.801†	-23.8	-0.9	-1.1422 µg/L	-1.1422 ppb	19:04:00
2	U 409.014†	-63.7	15.0	1.2443 µg/L	1.2443 ppb	19:03:39
2	V 292.402†	-44.3	1.5	0.0193 µg/L	0.0193 ppb	19:03:39
2	Zn 213.857†	528.3	-19.0	-0.4374 µg/L	-0.4374 ppb	19:04:00
3	Sc RADIAL	57190.0	57190.0	101 %		19:02:31
3	Al 396.153Radial†	-22.6	-29.7	-20.673 µg/L	-20.673 ppb	19:02:31
3	Ca 317.933Radial†	189.8	-23.8	-20.291 µg/L	-20.291 ppb	19:02:51
3	Fe 238.204 Radial†	18.6	1.8	13.987 µg/L	13.987 ppb	19:02:51
3	K 766.490 Radial†	197.7	30.3	19.782 µg/L	19.782 ppb	19:02:31
3	Mg 279.077 IEC†	10.1	-2.9	-25.784 µg/L	-25.784 ppb	19:02:51
3	Na 589.592 Radial†	485.7	7.6	2.3466 µg/L	2.3466 ppb	19:02:31
3	Sr 421.552†	55.0	25.5	0.2351 µg/L	0.2351 ppb	19:02:31
3	Sc 361.383	2000057.1	2000057.1	101.88 %		19:04:06
3	Y 371.029	1377155.5	1377155.5	101.80 %		19:04:06
3	Ag 328.068†	-451.3	-41.4	-0.3043 µg/L	-0.3043 ppb	19:04:11
3	As 188.979†	5.3	5.6	10.113 µg/L	10.113 ppb	19:04:32
3	B 249.677†	349.5	-41.1	-1.6816 µg/L	-1.6816 ppb	19:04:32
3	Ba 233.527†	-13.8	3.6	0.0860 µg/L	0.0860 ppb	19:04:32
3	Be 313.107†	-2997.1	-86.1	-0.0512 µg/L	-0.0512 ppb	19:04:11
3	Cd 226.502†	-137.9	6.3	0.1551 µg/L	0.1551 ppb	19:04:32
3	Co 228.616†	6.6	4.6	0.2062 µg/L	0.2062 ppb	19:04:32
3	Cr 267.716†	-22.6	28.2	0.5656 µg/L	0.5656 ppb	19:04:11
3	Cu 324.752†	2587.8	-3.8	-0.0226 µg/L	-0.0226 ppb	19:04:11
3	Mn 257.610†	-159.2	99.8	0.3153 µg/L	0.3153 ppb	19:04:32
3	Mo 202.031†	2.5	7.8	0.7608 µg/L	0.7608 ppb	19:04:32
3	Ni 231.604†	316.7	-1.4	-0.0722 µg/L	-0.0722 ppb	19:04:32
3	P 214.914†	14.3	-1.3	-2.5898 µg/L	-2.5898 ppb	19:04:32
3	Pb 220.353†	83.5	-8.9	-2.1741 µg/L	-2.1741 ppb	19:04:32
3	S 181.975 Axial†	16.2	-3.0	-12.393 µg/L	-12.393 ppb	19:04:32
3	Sb 206.836†	23.0	0.1	0.0887 µg/L	0.0887 ppb	19:04:32
3	Se 196.026†	9.9	-9.6	-13.418 µg/L	-13.418 ppb	19:04:32
3	SiO2†	1462.5	43.9	8.6651 µg/L	8.6651 ppb	19:04:11
3	Si 251.611†	360.6	43.4	3.2962 µg/L	3.2962 ppb	19:04:32
3	Sn 189.927†	6.4	5.9	2.4731 µg/L	2.4731 ppb	19:04:32
3	Ti 334.940†	309.8	129.0	0.2871 µg/L	0.2871 ppb	19:04:11
3	Tl 190.801†	-25.4	-2.6	-3.3285 µg/L	-3.3285 ppb	19:04:32
3	U 409.014†	-45.5	32.4	2.6931 µg/L	2.6931 ppb	19:04:11
3	V 292.402†	-23.1	22.0	0.2263 µg/L	0.2263 ppb	19:04:11
3	Zn 213.857†	527.6	-16.5	-0.3862 µg/L	-0.3862 ppb	19:04:32

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2008496.8	102.31 %	0.373			0.36%
Sc RADIAL	57321.4	101 %	0.2			0.21%
Y 371.029	1382895.2	102.23 %	0.367			0.36%
Ag 328.068†	-30.2	-0.2215 µg/L	0.11176	-0.2215 ppb	0.11176	50.45%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-20.8	-14.477 µg/L	8.5505	-14.477 ppb	8.5505	59.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	2.0	3.6588 µg/L	5.99568	3.6588 ppb	5.99568	163.87%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-37.6	-1.5391 µg/L	0.21127	-1.5391 ppb	0.21127	13.73%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	7.0	0.1689 µg/L	0.08165	0.1689 ppb	0.08165	48.35%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	29.8	0.0176 µg/L	0.07185	0.0176 ppb	0.07185	409.21%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-21.9	-18.714 µg/L	1.7037	-18.714 ppb	1.7037	9.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	6.9	0.1709 µg/L	0.04557	0.1709 ppb	0.04557	26.66%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	5.4	0.2427 µg/L	0.05064	0.2427 ppb	0.05064	20.87%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
	12.3	0.2467 µg/L	0.27783	0.2467 ppb	0.27783 112.61%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
	-26.0	-0.1680 µg/L	0.16236	-0.1680 ppb	0.16236 96.63%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
	1.6	12.634 µg/L	14.9319	12.634 ppb	14.9319 118.18%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
	30.1	19.662 µg/L	18.5502	19.662 ppb	18.5502 94.35%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
	-4.5	-39.828 µg/L	28.7536	-39.828 ppb	28.7536 72.20%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
	95.6	0.3025 µg/L	0.01153	0.3025 ppb	0.01153 3.81%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
	4.4	0.4283 µg/L	0.35090	0.4283 ppb	0.35090 81.94%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
	19.8	6.0958 µg/L	9.85836	6.0958 ppb	9.85836 161.73%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
	-6.4	-0.3185 µg/L	0.39156	-0.3185 ppb	0.39156 122.95%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
	0.7	1.4847 µg/L	6.34276	1.4847 ppb	6.34276 427.21%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
	-5.9	-1.4381 µg/L	1.24182	-1.4381 ppb	1.24182 86.35%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
	-4.8	-19.820 µg/L	13.0459	-19.820 ppb	13.0459 65.82%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
	0.9	0.8090 µg/L	4.77653	0.8090 ppb	4.77653 590.45%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
	-4.2	-5.7739 µg/L	7.99551	-5.7739 ppb	7.99551 138.48%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated			
	31.9	6.2974 µg/L	2.56780	6.2974 ppb	2.56780 40.78%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated			
	40.5	3.0772 µg/L	0.18971	3.0772 ppb	0.18971 6.16%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
	5.3	2.2475 µg/L	0.41585	2.2475 ppb	0.41585 18.50%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
	12.5	0.1152 µg/L	0.16339	0.1152 ppb	0.16339 141.88%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
	162.8	0.3629 µg/L	0.11813	0.3629 ppb	0.11813 32.55%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
	-1.2	-1.5413 µg/L	1.62481	-1.5413 ppb	1.62481 105.42%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
	72.5	6.0222 µg/L	7.05819	6.0222 ppb	7.05819 117.20%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
	24.2	0.2477 µg/L	0.23982	0.2477 ppb	0.23982 96.82%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
	-19.1	-0.4436 µg/L	0.06072	-0.4436 ppb	0.06072 13.69%
	QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 27

Sample ID: 245688009|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 321

Date Collected: 2/19/2010 19:04:41

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688009|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57447.0	57447.0	102 %		19:05:20
1	Al 396.153Radial†	82286.8	80916.7	56290 µg/L	56290 ppb	19:05:20
1	Ca 317.933Radial†	18635.2	18115.3	15474 µg/L	15474 ppb	19:05:20
1	Fe 238.204 Radial†	12110.6	11893.5	93804 µg/L	93804 ppb	19:05:40
1	K 766.490 Radial†	12867.8	12489.7	8157.2 µg/L	8157.2 ppb	19:05:20
1	Mg 279.077 IEC†	1251.1	1217.6	10783 µg/L	10783 ppb	19:05:40
1	Na 589.592 Radial†	2556.8	2042.3	627.28 µg/L	627.28 ppb	19:05:20
1	Sr 421.552†	14778.7	14505.1	133.81 µg/L	133.81 ppb	19:05:20
1	Sc 361.383	2015604.9	2015604.9	102.67 %		19:06:44
1	Y 371.029	1412732.1	1412732.1	104.43 %		19:06:44
1	Ag 328.068†	-1106.9	-676.5	1.9726 µg/L	1.9726 ppb	19:06:50
1	As 188.979†	16.2	16.2	33.716 µg/L	33.716 ppb	19:07:10
1	B 249.677†	1201.0	785.6	-16.614 µg/L	-16.614 ppb	19:06:50
1	Ba 233.527†	30227.7	29457.7	707.49 µg/L	707.49 ppb	19:06:50
1	Be 313.107†	49248.0	50821.3	29.319 µg/L	29.319 ppb	19:06:50
1	Cd 226.502†	227.1	362.9	-1.4346 µg/L	-1.4346 ppb	19:07:10
1	Co 228.616†	862.8	838.4	33.351 µg/L	33.351 ppb	19:07:10
1	Cr 267.716†	9981.2	9771.6	196.37 µg/L	196.37 ppb	19:06:50
1	Cu 324.752†	669780.7	649796.3	4254.6 µg/L	4254.6 ppb	19:06:44
1	Mn 257.610†	549218.1	535172.8	1687.9 µg/L	1687.9 ppb	19:06:44
1	Mo 202.031†	25.5	30.2	6.5209 µg/L	6.5209 ppb	19:07:10
1	Ni 231.604†	2680.3	2298.2	115.74 µg/L	115.74 ppb	19:07:10
1	P 214.914†	458.4	431.1	345.99 µg/L	345.99 ppb	19:07:10
1	Pb 220.353†	12762.9	12339.7	2990.8 µg/L	2990.8 ppb	19:06:50
1	S 181.975 Axial†	86.7	65.5	271.60 µg/L	271.60 ppb	19:07:10
1	Sb 206.836†	66.8	42.6	35.556 µg/L	35.556 ppb	19:07:10
1	Se 196.026†	-29.5	-48.1	174.92 µg/L	174.92 ppb	19:07:10
1	SiO2†	115525.6	111125.9	21935 µg/L	21935 ppb	19:06:50
1	Si 251.611†	140532.1	136562.1	10382 µg/L	10382 ppb	19:06:44
1	Sn 189.927†	43.9	42.3	9.0546 µg/L	9.0546 ppb	19:07:10
1	Ti 334.940†	1027387.8	1000460.2	2212.6 µg/L	2212.6 ppb	19:06:44
1	Tl 190.801†	-49.8	-26.1	9.9552 µg/L	9.9552 ppb	19:07:10
1	U 409.014†	15019.5	14705.5	1207.8 µg/L	1207.8 ppb	19:06:50
1	V 292.402†	17108.3	16707.5	175.60 µg/L	175.60 ppb	19:06:50
1	Zn 213.857†	30705.6	29371.6	676.69 µg/L	676.69 ppb	19:06:50
2	Sc RADIAL	57626.0	57626.0	102 %		19:05:46
2	Al 396.153Radial†	82651.2	81022.6	56364 µg/L	56364 ppb	19:05:46
2	Ca 317.933Radial†	18633.7	18057.0	15424 µg/L	15424 ppb	19:05:46
2	Fe 238.204 Radial†	12117.0	11862.7	93561 µg/L	93561 ppb	19:06:06
2	K 766.490 Radial†	12955.9	12536.8	8188.0 µg/L	8188.0 ppb	19:05:46
2	Mg 279.077 IEC†	1261.7	1224.2	10843 µg/L	10843 ppb	19:06:06
2	Na 589.592 Radial†	2592.0	2069.0	635.47 µg/L	635.47 ppb	19:05:46
2	Sr 421.552†	14770.9	14452.4	133.33 µg/L	133.33 ppb	19:05:46
2	Sc 361.383	1980151.1	1980151.1	100.87 %		19:07:18
2	Y 371.029	1388029.7	1388029.7	102.61 %		19:07:18
2	Ag 328.068†	-1166.2	-754.5	1.3990 µg/L	1.3990 ppb	19:07:23
2	As 188.979†	20.5	20.8	41.912 µg/L	41.912 ppb	19:07:44
2	B 249.677†	1183.1	788.8	-16.352 µg/L	-16.352 ppb	19:07:23
2	Ba 233.527†	30242.3	29999.3	720.50 µg/L	720.50 ppb	19:07:23
2	Be 313.107†	49213.5	51645.9	29.796 µg/L	29.796 ppb	19:07:23
2	Cd 226.502†	222.2	361.9	-1.4289 µg/L	-1.4289 ppb	19:07:44
2	Co 228.616†	855.0	845.7	33.614 µg/L	33.614 ppb	19:07:44
2	Cr 267.716†	10006.5	9970.8	200.37 µg/L	200.37 ppb	19:07:23
2	Cu 324.752†	668105.5	659815.4	4319.9 µg/L	4319.9 ppb	19:07:18
2	Mn 257.610†	547260.9	542810.0	1711.8 µg/L	1711.8 ppb	19:07:18
2	Mo 202.031†	19.0	24.2	5.9233 µg/L	5.9233 ppb	19:07:44
2	Ni 231.604†	2665.6	2330.4	117.34 µg/L	117.34 ppb	19:07:44
2	P 214.914†	456.4	437.1	351.16 µg/L	351.16 ppb	19:07:44
2	Pb 220.353†	12788.0	12587.1	3050.8 µg/L	3050.8 ppb	19:07:23

2	S 181.975 Axial†	87.2	67.6	280.14 µg/L	280.14 ppb	19:07:44
2	Sb 206.836†	67.4	44.3	37.077 µg/L	37.077 ppb	19:07:44
2	Se 196.026†	-42.3	-61.2	155.73 µg/L	155.73 ppb	19:07:44
2	SiO2†	115630.5	113244.4	22353 µg/L	22353 ppb	19:07:23
2	Si 251.611†	139720.3	138207.9	10507 µg/L	10507 ppb	19:07:18
2	Sn 189.927†	36.3	35.6	6.2362 µg/L	6.2362 ppb	19:07:44
2	Ti 334.940†	1024268.0	1015283.2	2245.4 µg/L	2245.4 ppb	19:07:18
2	Tl 190.801†	-54.6	-31.7	3.0708 µg/L	3.0708 ppb	19:07:44
2	U 409.014†	15144.4	15091.2	1239.9 µg/L	1239.9 ppb	19:07:23
2	V 292.402†	17116.2	17013.7	178.60 µg/L	178.60 ppb	19:07:23
2	Zn 213.857†	30784.1	29984.9	690.97 µg/L	690.97 ppb	19:07:23
3	Sc RADIAL	57830.6	57830.6	102 %		19:06:11
3	Al 396.153Radial†	82504.8	80592.9	56065 µg/L	56065 ppb	19:06:11
3	Ca 317.933Radial†	18634.7	17993.3	15369 µg/L	15369 ppb	19:06:11
3	Fe 238.204 Radial†	12065.5	11770.5	92833 µg/L	92833 ppb	19:06:32
3	K 766.490 Radial†	12921.0	12457.8	8136.4 µg/L	8136.4 ppb	19:06:11
3	Mg 279.077 IEC†	1257.2	1215.4	10765 µg/L	10765 ppb	19:06:32
3	Na 589.592 Radial†	2540.8	2010.0	617.35 µg/L	617.35 ppb	19:06:11
3	Sr 421.552†	14779.0	14409.0	132.93 µg/L	132.93 ppb	19:06:11
3	Sc 361.383	1985522.6	1985522.6	101.14 %		19:07:51
3	Y 371.029	1390115.4	1390115.4	102.76 %		19:07:51
3	Ag 328.068†	-1121.2	-706.9	1.6380 µg/L	1.6380 ppb	19:07:56
3	As 188.979†	16.2	16.4	34.041 µg/L	34.041 ppb	19:08:17
3	B 249.677†	1152.3	755.1	-17.365 µg/L	-17.365 ppb	19:07:56
3	Ba 233.527†	28745.0	28437.7	682.99 µg/L	682.99 ppb	19:07:56
3	Be 313.107†	46109.2	48444.6	27.933 µg/L	27.933 ppb	19:07:56
3	Cd 226.502†	179.1	318.8	-2.4339 µg/L	-2.4339 ppb	19:08:17
3	Co 228.616†	785.3	774.5	30.591 µg/L	30.591 ppb	19:08:17
3	Cr 267.716†	9353.8	9298.6	186.86 µg/L	186.86 ppb	19:07:56
3	Cu 324.752†	645464.1	635637.5	4162.0 µg/L	4162.0 ppb	19:07:51
3	Mn 257.610†	527010.5	521320.3	1644.4 µg/L	1644.4 ppb	19:07:51
3	Mo 202.031†	20.2	25.3	6.0044 µg/L	6.0044 ppb	19:08:17
3	Ni 231.604†	2445.2	2105.3	106.11 µg/L	106.11 ppb	19:08:17
3	P 214.914†	422.2	402.1	298.97 µg/L	298.97 ppb	19:08:17
3	Pb 220.353†	12300.7	12070.9	2925.7 µg/L	2925.7 ppb	19:07:56
3	S 181.975 Axial†	87.5	67.6	280.34 µg/L	280.34 ppb	19:08:17
3	Sb 206.836†	66.2	42.9	36.002 µg/L	36.002 ppb	19:08:17
3	Se 196.026†	-29.7	-48.6	171.50 µg/L	171.50 ppb	19:08:17
3	SiO2†	109938.4	107306.4	21181 µg/L	21181 ppb	19:07:56
3	Si 251.611†	135363.0	133525.0	10151 µg/L	10151 ppb	19:07:51
3	Sn 189.927†	44.1	43.3	9.5455 µg/L	9.5455 ppb	19:08:17
3	Ti 334.940†	983140.0	971872.2	2149.4 µg/L	2149.4 ppb	19:07:51
3	Tl 190.801†	-48.5	-25.5	9.8066 µg/L	9.8066 ppb	19:08:17
3	U 409.014†	14222.7	14139.3	1160.9 µg/L	1160.9 ppb	19:07:56
3	V 292.402†	16093.3	15956.5	168.10 µg/L	168.10 ppb	19:07:56
3	Zn 213.857†	29320.9	28455.7	655.44 µg/L	655.44 ppb	19:07:56

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Mean Data: 245688009|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1993759.5	101.56 %	0.973			0.96%
Sc RADIAL	57634.5	102 %	0.3			0.33%
Y 371.029	1396959.1	103.27 %	1.013			0.98%
Ag 328.068†	-712.6	1.6699 µg/L	0.28813	1.6699 ppb	0.28813	17.25%
Al 396.153Radial†	80844.1	56239 µg/L	155.7	56239 ppb	155.7	0.28%
As 188.979†	17.8	36.556 µg/L	4.6408	36.556 ppb	4.6408	12.69%
B 249.677†	776.5	-16.777 µg/L	0.5257	-16.777 ppb	0.5257	3.13%
Ba 233.527†	29298.2	703.66 µg/L	19.044	703.66 ppb	19.044	2.71%
Be 313.107†	50304.0	29.016 µg/L	0.9680	29.016 ppb	0.9680	3.34%
Ca 317.933Radial†	18055.2	15422 µg/L	52.2	15422 ppb	52.2	0.34%
Cd 226.502†	347.9	-1.7658 µg/L	0.57859	-1.7658 ppb	0.57859	32.77%
Co 228.616†	819.5	32.519 µg/L	1.6747	32.519 ppb	1.6747	5.15%
Cr 267.716†	9680.4	194.53 µg/L	6.938	194.53 ppb	6.938	3.57%
Cu 324.752†	648416.4	4245.5 µg/L	79.35	4245.5 ppb	79.35	1.87%
Fe 238.204 Radial†	11842.2	93399 µg/L	505.0	93399 ppb	505.0	0.54%
K 766.490 Radial†	12494.8	8160.5 µg/L	25.94	8160.5 ppb	25.94	0.32%
Mg 279.077 IEC†	1219.0	10797 µg/L	40.6	10797 ppb	40.6	0.38%
Mn 257.610†	533101.0	1681.4 µg/L	34.17	1681.4 ppb	34.17	2.03%
Mo 202.031†	26.6	6.1495 µg/L	0.32417	6.1495 ppb	0.32417	5.27%
Na 589.592 Radial†	2040.4	626.70 µg/L	9.073	626.70 ppb	9.073	1.45%

Ni 231.604†	2244.6	113.06 µg/L	6.072	113.06 ppb	6.072	5.37%
P 214.914†	423.4	332.04 µg/L	28.759	332.04 ppb	28.759	8.66%
Pb 220.353†	12332.6	2989.1 µg/L	62.58	2989.1 ppb	62.58	2.09%
S 181.975 Axial†	66.9	277.36 µg/L	4.990	277.36 ppb	4.990	1.80%
Sb 206.836†	43.3	36.212 µg/L	0.7819	36.212 ppb	0.7819	2.16%
Se 196.026†	-52.6	167.39 µg/L	10.235	167.39 ppb	10.235	6.11%
SiO2†	110558.9	21823 µg/L	594.0	21823 ppb	594.0	2.72%
Si 251.611†	136098.4	10346 µg/L	180.6	10346 ppb	180.6	1.75%
Sn 189.927†	40.4	8.2788 µg/L	1.78584	8.2788 ppb	1.78584	21.57%
Sr 421.552†	14455.5	133.35 µg/L	0.444	133.35 ppb	0.444	0.33%
Ti 334.940†	995871.9	2202.5 µg/L	48.81	2202.5 ppb	48.81	2.22%
Tl 190.801†	-27.8	7.6109 µg/L	3.93253	7.6109 ppb	3.93253	51.67%
U 409.014†	14645.3	1202.9 µg/L	39.72	1202.9 ppb	39.72	3.30%
V 292.402†	16559.3	174.10 µg/L	5.410	174.10 ppb	5.410	3.11%
Zn 213.857†	29270.8	674.37 µg/L	17.881	674.37 ppb	17.881	2.65%

Sequence No.: 28

Sample ID: 245688010|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 322

Date Collected: 2/19/2010 19:08:26

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688010|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57698.6	57698.6	102 %		19:08:59
1	Al 396.153Radial†	85825.6	84028.9	58455 µg/L	58455 ppb	19:08:59
1	Ca 317.933Radial†	25364.6	24624.5	21034 µg/L	21034 ppb	19:09:20
1	Fe 238.204 Radial†	14757.2	14432.9	113830 µg/L	113830 ppb	19:09:20
1	K 766.490 Radial†	14700.2	14228.8	9293.0 µg/L	9293.0 ppb	19:08:59
1	Mg 279.077 IEC†	1533.9	1489.1	13189 µg/L	13189 ppb	19:09:20
1	Na 589.592 Radial†	10323.5	9636.0	2959.6 µg/L	2959.6 ppb	19:09:20
1	Sr 421.552†	21695.3	21214.2	195.70 µg/L	195.70 ppb	19:08:59
1	Sc 361.383	2006141.9	2006141.9	102.19 %		19:10:24
1	Y 371.029	1464333.0	1464333.0	108.25 %		19:10:24
1	Ag 328.068†	-1862.9	-1421.4	-2.5141 µg/L	-2.5141 ppb	19:10:29
1	As 188.979†	7.9	8.2	20.180 µg/L	20.180 ppb	19:10:50
1	B 249.677†	1035.2	628.9	-33.234 µg/L	-33.234 ppb	19:10:29
1	Ba 233.527†	37896.3	37100.6	890.91 µg/L	890.91 ppb	19:10:29
1	Be 313.107†	13756.5	16317.2	8.7817 µg/L	8.7817 ppb	19:10:29
1	Cd 226.502†	255.5	391.7	-2.9110 µg/L	-2.9110 ppb	19:10:50
1	Co 228.616†	1087.3	1062.0	43.158 µg/L	43.158 ppb	19:10:50
1	Cr 267.716†	16831.8	16521.3	331.91 µg/L	331.91 ppb	19:10:29
1	Cu 324.752†	7876.9	5164.2	49.532 µg/L	49.532 ppb	19:10:29
1	Mn 257.610†	1026218.0	1004466.6	3160.1 µg/L	3160.1 ppb	19:10:24
1	Mo 202.031†	57.5	61.6	10.355 µg/L	10.355 ppb	19:10:50
1	Ni 231.604†	4085.5	3685.6	185.15 µg/L	185.15 ppb	19:10:50
1	P 214.914†	295.3	273.7	462.72 µg/L	462.72 ppb	19:10:50
1	Pb 220.353†	495.4	393.8	94.755 µg/L	94.755 ppb	19:10:50
1	S 181.975 Axial†	132.7	110.9	460.08 µg/L	460.08 ppb	19:10:50
1	Sb 206.836†	35.5	12.3	5.7586 µg/L	5.7586 ppb	19:10:50
1	Se 196.026†	-46.0	-64.3	203.14 µg/L	203.14 ppb	19:10:50
1	SiO2†	109609.5	105867.3	20897 µg/L	20897 ppb	19:10:29
1	Si 251.611†	131828.0	128690.3	9783.3 µg/L	9783.3 ppb	19:10:29
1	Sn 189.927†	9.2	8.6	-7.0371 µg/L	-7.0371 ppb	19:10:50
1	Ti 334.940†	1094563.7	1070915.6	2368.4 µg/L	2368.4 ppb	19:10:24
1	Tl 190.801†	-54.0	-30.5	12.462 µg/L	12.462 ppb	19:10:50
1	U 409.014†	-2062.2	-1940.9	-178.36 µg/L	-178.36 ppb	19:10:24
1	V 292.402†	13360.3	13118.5	141.88 µg/L	141.88 ppb	19:10:29
1	Zn 213.857†	11206.1	10431.3	237.71 µg/L	237.71 ppb	19:10:29
2	Sc RADIAL	57394.9	57394.9	102 %		19:09:25
2	Al 396.153Radial†	85529.5	84182.0	58561 µg/L	58561 ppb	19:09:25
2	Ca 317.933Radial†	25176.1	24570.3	20987 µg/L	20987 ppb	19:09:46
2	Fe 238.204 Radial†	14607.1	14361.6	113270 µg/L	113270 ppb	19:09:46
2	K 766.490 Radial†	14653.4	14258.9	9312.7 µg/L	9312.7 ppb	19:09:25
2	Mg 279.077 IEC†	1530.3	1493.5	13229 µg/L	13229 ppb	19:09:46
2	Na 589.592 Radial†	10227.8	9595.4	2947.2 µg/L	2947.2 ppb	19:09:46
2	Sr 421.552†	21629.1	21261.4	196.14 µg/L	196.14 ppb	19:09:25
2	Sc 361.383	2009298.5	2009298.5	102.35 %		19:10:57
2	Y 371.029	1467598.0	1467598.0	108.49 %		19:10:57
2	Ag 328.068†	-1871.0	-1426.4	-2.5819 µg/L	-2.5819 ppb	19:11:03
2	As 188.979†	17.8	17.8	37.418 µg/L	37.418 ppb	19:11:23
2	B 249.677†	988.4	581.6	-34.870 µg/L	-34.870 ppb	19:11:03
2	Ba 233.527†	38027.6	37170.7	892.60 µg/L	892.60 ppb	19:11:03
2	Be 313.107†	13787.2	16326.0	8.7829 µg/L	8.7829 ppb	19:11:03
2	Cd 226.502†	239.9	376.0	-3.2399 µg/L	-3.2399 ppb	19:11:23
2	Co 228.616†	1073.2	1046.6	42.438 µg/L	42.438 ppb	19:11:23
2	Cr 267.716†	16891.4	16553.6	332.56 µg/L	332.56 ppb	19:11:03
2	Cu 324.752†	7946.9	5220.5	49.821 µg/L	49.821 ppb	19:11:03
2	Mn 257.610†	1033136.5	1009648.4	3176.3 µg/L	3176.3 ppb	19:10:57
2	Mo 202.031†	55.5	59.5	10.134 µg/L	10.134 ppb	19:11:23
2	Ni 231.604†	4031.1	3626.1	182.18 µg/L	182.18 ppb	19:11:23
2	P 214.914†	307.9	285.5	486.58 µg/L	486.58 ppb	19:11:23
2	Pb 220.353†	503.8	401.2	96.585 µg/L	96.585 ppb	19:11:23



2	S 181.975 Axial†	132.8	110.8	459.48 µg/L	459.48 ppb	19:11:23
2	Sb 206.836†	40.1	16.6	9.7824 µg/L	9.7824 ppb	19:11:23
2	Se 196.026†	-62.0	-79.9	179.74 µg/L	179.74 ppb	19:11:23
2	SiO2†	110366.8	106438.7	21010 µg/L	21010 ppb	19:11:03
2	Si 251.611†	132665.8	129306.2	9830.1 µg/L	9830.1 ppb	19:11:03
2	Sn 189.927†	-1.6	-2.0	-11.446 µg/L	-11.446 ppb	19:11:23
2	Ti 334.940†	1101240.8	1075756.5	2379.1 µg/L	2379.1 ppb	19:10:57
2	Tl 190.801†	-51.2	-27.6	16.258 µg/L	16.258 ppb	19:11:23
2	U 409.014†	-2136.3	-2010.1	-184.04 µg/L	-184.04 ppb	19:10:57
2	V 292.402†	13456.2	13191.7	142.53 µg/L	142.53 ppb	19:11:03
2	Zn 213.857†	11286.9	10493.1	239.19 µg/L	239.19 ppb	19:11:03
3	Sc RADIAL	57733.4	57733.4	102 %		19:09:51
3	Al 396.153Radial†	85376.1	83538.3	58114 µg/L	58114 ppb	19:09:51
3	Ca 317.933Radial†	25106.8	24357.2	20805 µg/L	20805 ppb	19:10:12
3	Fe 238.204 Radial†	14563.8	14234.9	112270 µg/L	112270 ppb	19:10:12
3	K 766.490 Radial†	14691.8	14211.8	9282.0 µg/L	9282.0 ppb	19:09:51
3	Mg 279.077 IEC†	1519.0	1473.6	13052 µg/L	13052 ppb	19:10:12
3	Na 589.592 Radial†	10234.3	9542.7	2931.0 µg/L	2931.0 ppb	19:10:12
3	Sr 421.552†	21610.7	21118.5	194.82 µg/L	194.82 ppb	19:09:51
3	Sc 361.383	1999822.7	1999822.7	101.87 %		19:11:31
3	Y 371.029	1456103.4	1456103.4	107.64 %		19:11:31
3	Ag 328.068†	-1759.0	-1325.1	-1.9486 µg/L	-1.9486 ppb	19:11:36
3	As 188.979†	13.6	13.8	30.129 µg/L	30.129 ppb	19:11:57
3	B 249.677†	1013.3	610.6	-33.200 µg/L	-33.200 ppb	19:11:36
3	Ba 233.527†	35908.0	35266.0	846.85 µg/L	846.85 ppb	19:11:36
3	Be 313.107†	12728.4	15350.5	8.2506 µg/L	8.2506 ppb	19:11:36
3	Cd 226.502†	198.6	336.7	-4.1267 µg/L	-4.1267 ppb	19:11:57
3	Co 228.616†	966.6	946.9	38.178 µg/L	38.178 ppb	19:11:57
3	Cr 267.716†	15717.7	15479.7	310.99 µg/L	310.99 ppb	19:11:36
3	Cu 324.752†	7617.3	4933.8	47.811 µg/L	47.811 ppb	19:11:36
3	Mn 257.610†	982963.7	965179.3	3036.9 µg/L	3036.9 ppb	19:11:31
3	Mo 202.031†	48.1	52.5	9.4090 µg/L	9.4090 ppb	19:11:57
3	Ni 231.604†	3648.2	3268.9	164.36 µg/L	164.36 ppb	19:11:57
3	P 214.914†	275.5	255.1	427.28 µg/L	427.28 ppb	19:11:57
3	Pb 220.353†	476.1	376.4	90.554 µg/L	90.554 ppb	19:11:57
3	S 181.975 Axial†	123.7	102.5	425.20 µg/L	425.20 ppb	19:11:57
3	Sb 206.836†	33.3	10.2	4.1053 µg/L	4.1053 ppb	19:11:57
3	Se 196.026†	-34.1	-52.8	215.29 µg/L	215.29 ppb	19:11:57
3	SiO2†	104599.6	101288.3	19993 µg/L	19993 ppb	19:11:36
3	Si 251.611†	125638.6	123022.1	9352.4 µg/L	9352.4 ppb	19:11:36
3	Sn 189.927†	6.8	6.3	-7.8708 µg/L	-7.8708 ppb	19:11:57
3	Ti 334.940†	1039652.8	1020397.0	2256.6 µg/L	2256.6 ppb	19:11:31
3	Tl 190.801†	-47.5	-24.3	18.816 µg/L	18.816 ppb	19:11:57
3	U 409.014†	-1979.1	-1865.7	-171.88 µg/L	-171.88 ppb	19:11:31
3	V 292.402†	12542.1	12356.6	134.23 µg/L	134.23 ppb	19:11:36
3	Zn 213.857†	10639.9	9910.2	225.66 µg/L	225.66 ppb	19:11:36

Mean Data: 245688010|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2005087.7	102.14 %	0.246			0.24%
Sc RADIAL	57609.0	102 %	0.3			0.32%
Y 371.029	1462678.1	108.13 %	0.438			0.40%
Ag 328.068†	-1391.0	-2.3482 µg/L	0.34774	-2.3482 ppb	0.34774	14.81%
Al 396.153Radial†	83916.4	58377 µg/L	233.9	58377 ppb	233.9	0.40%
As 188.979†	13.3	29.242 µg/L	8.6530	29.242 ppb	8.6530	29.59%
B 249.677†	607.0	-33.768 µg/L	0.9542	-33.768 ppb	0.9542	2.83%
Ba 233.527†	36512.5	876.79 µg/L	25.936	876.79 ppb	25.936	2.96%
Be 313.107†	15997.9	8.6050 µg/L	0.30699	8.6050 ppb	0.30699	3.57%
Ca 317.933Radial†	24517.4	20942 µg/L	120.7	20942 ppb	120.7	0.58%
Cd 226.502†	368.1	-3.4259 µg/L	0.62880	-3.4259 ppb	0.62880	18.35%
Co 228.616†	1018.5	41.258 µg/L	2.6916	41.258 ppb	2.6916	6.52%
Cr 267.716†	16184.8	325.16 µg/L	12.273	325.16 ppb	12.273	3.77%
Cu 324.752†	5106.2	49.055 µg/L	1.0870	49.055 ppb	1.0870	2.22%
Fe 238.204 Radial†	14343.2	113120 µg/L	791.0	113120 ppb	791.0	0.70%
K 766.490 Radial†	14233.1	9295.9 µg/L	15.57	9295.9 ppb	15.57	0.17%
Mg 279.077 IEC†	1485.4	13157 µg/L	92.8	13157 ppb	92.8	0.71%
Mn 257.610†	993098.1	3124.4 µg/L	76.24	3124.4 ppb	76.24	2.44%
Mo 202.031†	57.9	9.9660 µg/L	0.49479	9.9660 ppb	0.49479	4.96%
Na 589.592 Radial†	9591.4	2945.9 µg/L	14.37	2945.9 ppb	14.37	0.49%

Ni 231.604†	3526.9	177.23 µg/L	11.241	177.23 ppb	11.241	6.34%
P 214.914†	271.4	458.86 µg/L	29.838	458.86 ppb	29.838	6.50%
Pb 220.353†	390.5	93.965 µg/L	3.0922	93.965 ppb	3.0922	3.29%
S 181.975 Axial†	108.1	448.25 µg/L	19.966	448.25 ppb	19.966	4.45%
Sb 206.836†	13.0	6.5488 µg/L	2.91985	6.5488 ppb	2.91985	44.59%
Se 196.026†	-65.6	199.39 µg/L	18.068	199.39 ppb	18.068	9.06%
SiO2†	104531.5	20633 µg/L	557.3	20633 ppb	557.3	2.70%
Si 251.611†	127006.2	9655.3 µg/L	263.34	9655.3 ppb	263.34	2.73%
Sn 189.927†	4.3	-8.7847 µg/L	2.34234	-8.7847 ppb	2.34234	26.66%
Sr 421.552†	21198.1	195.56 µg/L	0.672	195.56 ppb	0.672	0.34%
Ti 334.940†	1055689.7	2334.7 µg/L	67.82	2334.7 ppb	67.82	2.90%
Tl 190.801†	-27.4	15.845 µg/L	3.1974	15.845 ppb	3.1974	20.18%
U 409.014†	-1938.9	-178.09 µg/L	6.081	-178.09 ppb	6.081	3.41%
V 292.402†	12888.9	139.55 µg/L	4.617	139.55 ppb	4.617	3.31%
Zn 213.857†	10278.2	234.19 µg/L	7.424	234.19 ppb	7.424	3.17%

Sequence No.: 29

Sample ID: 245688011|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 323

Date Collected: 2/19/2010 19:12:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688011|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56085.4	56085.4	99.3 %			19:12:39
1	Al 396.153Radial†	44205.0	44521.0	30971 µg/L		30971 ppb	19:12:39
1	Ca 317.933Radial†	37305.0	37366.5	31918 µg/L		31918 ppb	19:12:39
1	Fe 238.204 Radial†	8464.3	8509.7	67115 µg/L		67115 ppb	19:12:59
1	K 766.490 Radial†	6481.1	6363.5	4156.1 µg/L		4156.1 ppb	19:12:39
1	Mg 279.077 IEC†	934.6	928.6	8228.9 µg/L		8228.9 ppb	19:12:59
1	Na 589.592 Radial†	11910.9	11525.8	3540.1 µg/L		3540.1 ppb	19:12:39
1	Sr 421.552†	18695.1	18803.1	173.46 µg/L		173.46 ppb	19:12:39
1	Sc 361.383	1999408.6	1999408.6	101.85 %			19:14:04
1	Y 371.029	1444411.9	1444411.9	106.78 %			19:14:04
1	Ag 328.068†	-1297.0	-871.9	-1.8031 µg/L		-1.8031 ppb	19:14:09
1	As 188.979†	12.3	12.6	24.739 µg/L		24.739 ppb	19:14:30
1	B 249.677†	577.6	183.0	-27.066 µg/L		-27.066 ppb	19:14:09
1	Ba 233.527†	36964.6	36310.8	871.84 µg/L		871.84 ppb	19:14:09
1	Be 313.107†	13192.4	15808.7	9.0031 µg/L		9.0031 ppb	19:14:09
1	Cd 226.502†	64.9	205.4	-2.2625 µg/L		-2.2625 ppb	19:14:30
1	Co 228.616†	485.2	474.5	19.419 µg/L		19.419 ppb	19:14:30
1	Cr 267.716†	15652.7	15418.9	309.73 µg/L		309.73 ppb	19:14:09
1	Cu 324.752†	5453.0	2810.3	27.673 µg/L		27.673 ppb	19:14:09
1	Mn 257.610†	1394263.0	1369213.4	4296.3 µg/L		4296.3 ppb	19:14:04
1	Mo 202.031†	106.7	110.1	13.337 µg/L		13.337 ppb	19:14:30
1	Ni 231.604†	4368.8	3977.2	199.11 µg/L		199.11 ppb	19:14:30
1	P 214.914†	166.2	147.8	245.43 µg/L		245.43 ppb	19:14:30
1	Pb 220.353†	604.4	502.5	121.47 µg/L		121.47 ppb	19:14:30
1	S 181.975 Axial†	196.2	173.7	720.25 µg/L		720.25 ppb	19:14:30
1	Sb 206.836†	35.0	11.9	4.7895 µg/L		4.7895 ppb	19:14:30
1	Se 196.026†	-26.2	-45.1	103.90 µg/L		103.90 ppb	19:14:30
1	SiO2†	109567.7	106187.5	20960 µg/L		20960 ppb	19:14:09
1	Si 251.611†	131631.4	128931.7	9801.6 µg/L		9801.6 ppb	19:14:09
1	Sn 189.927†	36.6	35.5	8.6370 µg/L		8.6370 ppb	19:14:30
1	Ti 334.940†	458620.9	450122.0	995.62 µg/L		995.62 ppb	19:14:04
1	Tl 190.801†	-37.7	-14.7	15.836 µg/L		15.836 ppb	19:14:30
1	U 409.014†	-1931.4	-1819.3	-162.43 µg/L		-162.43 ppb	19:14:04
1	V 292.402†	6720.0	6642.8	73.275 µg/L		73.275 ppb	19:14:09
1	Zn 213.857†	9192.5	8491.3	194.65 µg/L		194.65 ppb	19:14:09
2	Sc RADIAL	56389.8	56389.8	99.8 %			19:13:05
2	Al 396.153Radial†	44450.4	44526.5	30975 µg/L		30975 ppb	19:13:05
2	Ca 317.933Radial†	37553.2	37412.4	31957 µg/L		31957 ppb	19:13:05
2	Fe 238.204 Radial†	8447.7	8447.0	66621 µg/L		66621 ppb	19:13:25
2	K 766.490 Radial†	6526.3	6373.6	4162.7 µg/L		4162.7 ppb	19:13:05
2	Mg 279.077 IEC†	935.6	924.6	8193.5 µg/L		8193.5 ppb	19:13:25
2	Na 589.592 Radial†	11928.4	11478.6	3525.6 µg/L		3525.6 ppb	19:13:05
2	Sr 421.552†	18882.5	18889.1	174.25 µg/L		174.25 ppb	19:13:05
2	Sc 361.383	2000332.8	2000332.8	101.90 %			19:14:37
2	Y 371.029	1444501.3	1444501.3	106.78 %			19:14:37
2	Ag 328.068†	-1303.4	-877.5	-1.8743 µg/L		-1.8743 ppb	19:14:43
2	As 188.979†	10.0	10.2	20.523 µg/L		20.523 ppb	19:15:03
2	B 249.677†	600.6	205.2	-25.896 µg/L		-25.896 ppb	19:14:43
2	Ba 233.527†	37413.6	36734.7	882.01 µg/L		882.01 ppb	19:14:43
2	Be 313.107†	13454.7	16060.1	9.1565 µg/L		9.1565 ppb	19:14:43
2	Cd 226.502†	75.9	216.2	-1.9380 µg/L		-1.9380 ppb	19:15:03
2	Co 228.616†	482.5	471.6	19.312 µg/L		19.312 ppb	19:15:03
2	Cr 267.716†	15846.2	15601.7	313.41 µg/L		313.41 ppb	19:14:43
2	Cu 324.752†	5537.6	2890.9	28.131 µg/L		28.131 ppb	19:14:43
2	Mn 257.610†	1380703.4	1355273.6	4252.6 µg/L		4252.6 ppb	19:14:37
2	Mo 202.031†	108.3	111.6	13.462 µg/L		13.462 ppb	19:15:03
2	Ni 231.604†	4358.2	3964.7	198.48 µg/L		198.48 ppb	19:15:03
2	P 214.914†	156.8	138.5	227.31 µg/L		227.31 ppb	19:15:03
2	Pb 220.353†	603.1	500.9	121.10 µg/L		121.10 ppb	19:15:03

2	S 181.975 Axial†	198.7	176.1	730.20	µg/L	730.20	ppb	19:15:03
2	Sb 206.836†	37.6	14.4	7.0339	µg/L	7.0339	ppb	19:15:03
2	Se 196.026†	-18.6	-37.6	113.03	µg/L	113.03	ppb	19:15:03
2	SiO2†	110682.0	107231.4	21166	µg/L	21166	ppb	19:14:43
2	Si 251.611†	133118.3	130331.2	9908.0	µg/L	9908.0	ppb	19:14:43
2	Sn 189.927†	38.6	37.5	9.5289	µg/L	9.5289	ppb	19:15:03
2	Ti 334.940†	453782.7	445165.7	984.66	µg/L	984.66	ppb	19:14:37
2	Tl 190.801†	-39.2	-16.1	13.584	µg/L	13.584	ppb	19:15:03
2	U 409.014†	-1865.2	-1753.4	-156.89	µg/L	-156.89	ppb	19:14:37
2	V 292.402†	6749.3	6668.5	73.482	µg/L	73.482	ppb	19:14:43
2	Zn 213.857†	9284.5	8577.4	196.70	µg/L	196.70	ppb	19:14:43
3	Sc RADIAL	56328.2	56328.2	99.7	%			19:13:31
3	Al 396.153Radial†	44145.8	44269.7	30796	µg/L	30796	ppb	19:13:31
3	Ca 317.933Radial†	37268.3	37167.8	31748	µg/L	31748	ppb	19:13:31
3	Fe 238.204 Radial†	8442.3	8450.8	66651	µg/L	66651	ppb	19:13:51
3	K 766.490 Radial†	6480.2	6334.5	4137.2	µg/L	4137.2	ppb	19:13:31
3	Mg 279.077 IEC†	934.9	924.9	8196.2	µg/L	8196.2	ppb	19:13:51
3	Na 589.592 Radial†	11841.4	11404.4	3502.8	µg/L	3502.8	ppb	19:13:31
3	Sr 421.552†	18734.9	18761.8	173.08	µg/L	173.08	ppb	19:13:31
3	Sc 361.383	1989042.0	1989042.0	101.32	%			19:15:11
3	Y 371.029	1434353.3	1434353.3	106.03	%			19:15:11
3	Ag 328.068†	-1257.7	-839.7	-1.6149	µg/L	-1.6149	ppb	19:15:16
3	As 188.979†	10.6	10.9	21.748	µg/L	21.748	ppb	19:15:37
3	B 249.677†	558.2	166.7	-27.513	µg/L	-27.513	ppb	19:15:16
3	Ba 233.527†	35334.6	34891.1	837.75	µg/L	837.75	ppb	19:15:16
3	Be 313.107†	12426.0	15119.7	8.6066	µg/L	8.6066	ppb	19:15:16
3	Cd 226.502†	47.3	188.3	-2.6544	µg/L	-2.6544	ppb	19:15:37
3	Co 228.616†	436.4	428.8	17.418	µg/L	17.418	ppb	19:15:37
3	Cr 267.716†	14760.2	14618.2	293.65	µg/L	293.65	ppb	19:15:16
3	Cu 324.752†	5374.1	2760.3	27.282	µg/L	27.282	ppb	19:15:16
3	Mn 257.610†	1350477.6	1333133.5	4183.3	µg/L	4183.3	ppb	19:15:11
3	Mo 202.031†	96.4	100.5	12.371	µg/L	12.371	ppb	19:15:37
3	Ni 231.604†	3974.6	3610.5	180.82	µg/L	180.82	ppb	19:15:37
3	P 214.914†	142.6	125.4	201.37	µg/L	201.37	ppb	19:15:37
3	Pb 220.353†	574.2	475.8	114.98	µg/L	114.98	ppb	19:15:37
3	S 181.975 Axial†	186.7	165.4	685.78	µg/L	685.78	ppb	19:15:37
3	Sb 206.836†	40.0	17.0	9.6996	µg/L	9.6996	ppb	19:15:37
3	Se 196.026†	-15.4	-34.6	117.47	µg/L	117.47	ppb	19:15:37
3	SiO2†	104620.3	101865.3	20107	µg/L	20107	ppb	19:15:16
3	Si 251.611†	125530.8	123584.2	9395.1	µg/L	9395.1	ppb	19:15:16
3	Sn 189.927†	30.9	30.1	6.3943	µg/L	6.3943	ppb	19:15:37
3	Ti 334.940†	441335.0	435408.2	963.07	µg/L	963.07	ppb	19:15:11
3	Tl 190.801†	-38.0	-15.1	14.466	µg/L	14.466	ppb	19:15:37
3	U 409.014†	-1960.7	-1858.1	-165.58	µg/L	-165.58	ppb	19:15:11
3	V 292.402†	6359.4	6321.2	70.039	µg/L	70.039	ppb	19:15:16
3	Zn 213.857†	8810.1	8160.9	187.01	µg/L	187.01	ppb	19:15:16

Mean Data: 245688011|954751|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1996261.1	101.69	%	0.319			0.31%
Sc RADIAL	56267.8	99.6	%	0.28			0.29%
Y 371.029	1441088.8	106.53	%	0.431			0.40%
Ag 328.068†	-863.0	-1.7641	µg/L	0.13406	-1.7641 ppb	0.13406	7.60%
Al 396.153Radial†	44439.0	30914	µg/L	102.0	30914 ppb	102.0	0.33%
As 188.979†	11.2	22.336	µg/L	2.1688	22.336 ppb	2.1688	9.71%
B 249.677†	185.0	-26.825	µg/L	0.8349	-26.825 ppb	0.8349	3.11%
Ba 233.527†	35978.9	863.87	µg/L	23.183	863.87 ppb	23.183	2.68%
Be 313.107†	15662.8	8.9221	µg/L	0.28376	8.9221 ppb	0.28376	3.18%
Ca 317.933Radial†	37315.6	31874	µg/L	111.1	31874 ppb	111.1	0.35%
Cd 226.502†	203.3	-2.2850	µg/L	0.35875	-2.2850 ppb	0.35875	15.70%
Co 228.616†	458.3	18.716	µg/L	1.1257	18.716 ppb	1.1257	6.01%
Cr 267.716†	15213.0	305.60	µg/L	10.508	305.60 ppb	10.508	3.44%
Cu 324.752†	2820.5	27.695	µg/L	0.4245	27.695 ppb	0.4245	1.53%
Fe 238.204 Radial†	8469.1	66796	µg/L	277.2	66796 ppb	277.2	0.42%
K 766.490 Radial†	6357.2	4152.0	µg/L	13.25	4152.0 ppb	13.25	0.32%
Mg 279.077 IEC†	926.0	8206.2	µg/L	19.73	8206.2 ppb	19.73	0.24%
Mn 257.610†	1352540.2	4244.1	µg/L	57.00	4244.1 ppb	57.00	1.34%
Mo 202.031†	107.4	13.057	µg/L	0.5968	13.057 ppb	0.5968	4.57%
Na 589.592 Radial†	11469.6	3522.8	µg/L	18.79	3522.8 ppb	18.79	0.53%

Ni 231.604†	3850.8	192.80 µg/L	10.380	192.80 ppb	10.380	5.38%
P 214.914†	137.3	224.70 µg/L	22.144	224.70 ppb	22.144	9.85%
Pb 220.353†	493.1	119.18 µg/L	3.645	119.18 ppb	3.645	3.06%
S 181.975 Axial†	171.7	712.08 µg/L	23.309	712.08 ppb	23.309	3.27%
Sb 206.836†	14.4	7.1743 µg/L	2.45806	7.1743 ppb	2.45806	34.26%
Se 196.026†	-39.1	111.47 µg/L	6.918	111.47 ppb	6.918	6.21%
SiO2†	105094.7	20744 µg/L	561.6	20744 ppb	561.6	2.71%
Si 251.611†	127615.7	9701.6 µg/L	270.70	9701.6 ppb	270.70	2.79%
Sn 189.927†	34.4	8.1867 µg/L	1.61507	8.1867 ppb	1.61507	19.73%
Sr 421.552†	18818.0	173.60 µg/L	0.599	173.60 ppb	0.599	0.35%
Ti 334.940†	443565.3	981.12 µg/L	16.562	981.12 ppb	16.562	1.69%
Tl 190.801†	-15.3	14.629 µg/L	1.1348	14.629 ppb	1.1348	7.76%
U 409.014†	-1810.3	-161.63 µg/L	4.398	-161.63 ppb	4.398	2.72%
V 292.402†	6544.2	72.265 µg/L	1.9309	72.265 ppb	1.9309	2.67%
Zn 213.857†	8409.8	192.79 µg/L	5.110	192.79 ppb	5.110	2.65%

Sequence No.: 30  
 Sample ID: 245688012|954751|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 324  
 Date Collected: 2/19/2010 19:15:46  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: 245688012|954751|1

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57882.0	57882.0	102 %		19:16:19
1	Al 396.153Radial†	73257.1	71495.0	49736 µg/L	49736 ppb	19:16:19
1	Ca 317.933Radial†	21928.3	21191.8	18102 µg/L	18102 ppb	19:16:39
1	Fe 238.204 Radial†	9783.2	9532.3	75182 µg/L	75182 ppb	19:16:39
1	K 766.490 Radial†	15300.8	14769.3	9646.1 µg/L	9646.1 ppb	19:16:19
1	Mg 279.077 IEC†	1378.4	1332.6	11832 µg/L	11832 ppb	19:16:39
1	Na 589.592 Radial†	1843.6	1327.3	407.67 µg/L	407.67 ppb	19:16:39
1	Sr 421.552†	21829.9	21278.2	196.29 µg/L	196.29 ppb	19:16:19
1	Sc 361.383	2003517.8	2003517.8	102.06 %		19:17:44
1	Y 371.029	1429014.4	1429014.4	105.64 %		19:17:44
1	Ag 328.068†	-1295.7	-868.0	-0.7692 µg/L	-0.7692 ppb	19:17:49
1	As 188.979†	14.3	14.5	29.378 µg/L	29.378 ppb	19:18:10
1	B 249.677†	989.3	585.3	-15.220 µg/L	-15.220 ppb	19:17:49
1	Ba 233.527†	49140.8	48167.0	1156.6 µg/L	1156.6 ppb	19:17:49
1	Be 313.107†	14227.2	16796.0	8.9852 µg/L	8.9852 ppb	19:17:49
1	Cd 226.502†	225.7	362.9	0.6319 µg/L	0.6319 ppb	19:18:10
1	Co 228.616†	1449.9	1418.7	58.869 µg/L	58.869 ppb	19:18:10
1	Cr 267.716†	4905.1	4856.6	97.635 µg/L	97.635 ppb	19:17:49
1	Cu 324.752†	41663.9	38280.1	260.32 µg/L	260.32 ppb	19:17:49
1	Mn 257.610†	1459405.6	1430234.9	4488.3 µg/L	4488.3 ppb	19:17:44
1	Mo 202.031†	63.7	67.8	9.4936 µg/L	9.4936 ppb	19:18:10
1	Ni 231.604†	1905.5	1554.7	78.403 µg/L	78.403 ppb	19:18:10
1	P 214.914†	565.6	538.8	993.70 µg/L	993.70 ppb	19:18:10
1	Pb 220.353†	905.0	795.8	192.81 µg/L	192.81 ppb	19:18:10
1	S 181.975 Axial†	287.9	263.2	1091.4 µg/L	1091.4 ppb	19:18:10
1	Sb 206.836†	34.8	11.6	8.0333 µg/L	8.0333 ppb	19:18:10
1	Se 196.026†	-20.6	-39.5	134.40 µg/L	134.40 ppb	19:18:10
1	SiO2†	126055.6	122122.3	24105 µg/L	24105 ppb	19:17:49
1	Si 251.611†	152973.9	149578.8	11371 µg/L	11371 ppb	19:17:44
1	Sn 189.927†	-1.2	-1.6	-7.3743 µg/L	-7.3743 ppb	19:18:10
1	Ti 334.940†	1190875.6	1166688.3	2580.3 µg/L	2580.3 ppb	19:17:44
1	Tl 190.801†	-54.2	-30.7	13.892 µg/L	13.892 ppb	19:18:10
1	U 409.014†	1393.9	1442.8	108.32 µg/L	108.32 ppb	19:17:44
1	V 292.402†	14621.1	14371.1	149.30 µg/L	149.30 ppb	19:17:49
1	Zn 213.857†	10247.6	9506.5	218.05 µg/L	218.05 ppb	19:17:49
2	Sc RADIAL	57929.1	57929.1	103 %		19:16:45
2	Al 396.153Radial†	74216.0	72372.2	50346 µg/L	50346 ppb	19:16:45
2	Ca 317.933Radial†	22091.6	21333.6	18223 µg/L	18223 ppb	19:17:05
2	Fe 238.204 Radial†	9858.7	9598.2	75702 µg/L	75702 ppb	19:17:05
2	K 766.490 Radial†	15519.3	14970.3	9777.4 µg/L	9777.4 ppb	19:16:45
2	Mg 279.077 IEC†	1386.2	1339.0	11889 µg/L	11889 ppb	19:17:05
2	Na 589.592 Radial†	1860.0	1341.8	412.12 µg/L	412.12 ppb	19:17:05
2	Sr 421.552†	22078.3	21503.1	198.37 µg/L	198.37 ppb	19:16:45
2	Sc 361.383	2037221.2	2037221.2	103.77 %		19:18:17
2	Y 371.029	1451248.5	1451248.5	107.28 %		19:18:17
2	Ag 328.068†	-1365.1	-913.8	-1.0915 µg/L	-1.0915 ppb	19:18:23
2	As 188.979†	16.7	16.5	33.068 µg/L	33.068 ppb	19:18:43
2	B 249.677†	999.6	579.1	-15.744 µg/L	-15.744 ppb	19:18:23
2	Ba 233.527†	48830.6	47071.5	1130.3 µg/L	1130.3 ppb	19:18:23
2	Be 313.107†	14109.5	16452.0	8.7900 µg/L	8.7900 ppb	19:18:23
2	Cd 226.502†	226.4	359.9	0.4961 µg/L	0.4961 ppb	19:18:43
2	Co 228.616†	1449.1	1394.4	57.820 µg/L	57.820 ppb	19:18:43
2	Cr 267.716†	4872.1	4745.2	95.396 µg/L	95.396 ppb	19:18:23
2	Cu 324.752†	41393.2	37343.9	254.28 µg/L	254.28 ppb	19:18:23
2	Mn 257.610†	1472006.7	1418720.3	4452.3 µg/L	4452.3 ppb	19:18:17
2	Mo 202.031†	68.8	71.6	9.8888 µg/L	9.8888 ppb	19:18:43
2	Ni 231.604†	1886.4	1505.4	75.954 µg/L	75.954 ppb	19:18:43
2	P 214.914†	560.4	524.7	966.05 µg/L	966.05 ppb	19:18:43
2	Pb 220.353†	905.9	782.0	189.48 µg/L	189.48 ppb	19:18:43

2	S 181.975 Axial†	282.4	253.2	1049.9 µg/L	1049.9 ppb	19:18:43
2	Sb 206.836†	32.2	8.5	5.2804 µg/L	5.2804 ppb	19:18:43
2	Se 196.026†	-19.1	-37.7	138.24 µg/L	138.24 ppb	19:18:43
2	SiO2†	125262.0	119314.2	23551 µg/L	23551 ppb	19:18:23
2	Si 251.611†	154771.9	148831.7	11314 µg/L	11314 ppb	19:18:17
2	Sn 189.927†	2.5	2.0	-5.8963 µg/L	-5.8963 ppb	19:18:43
2	Ti 334.940†	1199803.5	1155987.1	2556.6 µg/L	2556.6 ppb	19:18:17
2	Tl 190.801†	-51.0	-26.8	18.762 µg/L	18.762 ppb	19:18:43
2	U 409.014†	1424.3	1449.6	108.80 µg/L	108.80 ppb	19:18:17
2	V 292.402†	14616.5	14129.6	147.01 µg/L	147.01 ppb	19:18:23
2	Zn 213.857†	10215.0	9309.0	213.40 µg/L	213.40 ppb	19:18:23
3	Sc RADIAL	57430.1	57430.1	102 %		19:17:11
3	Al 396.153Radial†	73585.4	72380.7	50352 µg/L	50352 ppb	19:17:11
3	Ca 317.933Radial†	21890.0	21322.5	18213 µg/L	18213 ppb	19:17:31
3	Fe 238.204 Radial†	9793.5	9617.6	75854 µg/L	75854 ppb	19:17:31
3	K 766.490 Radial†	15398.3	14982.7	9785.5 µg/L	9785.5 ppb	19:17:11
3	Mg 279.077 IEC†	1381.5	1346.2	11952 µg/L	11952 ppb	19:17:31
3	Na 589.592 Radial†	1853.2	1350.8	414.90 µg/L	414.90 ppb	19:17:31
3	Sr 421.552†	21810.0	21426.3	197.66 µg/L	197.66 ppb	19:17:11
3	Sc 361.383	2004970.8	2004970.8	102.13 %		19:18:51
3	Y 371.029	1427101.8	1427101.8	105.50 %		19:18:51
3	Ag 328.068†	-1293.7	-865.1	-0.7630 µg/L	-0.7630 ppb	19:18:56
3	As 188.979†	11.5	11.7	24.441 µg/L	24.441 ppb	19:19:17
3	B 249.677†	955.7	551.7	-16.951 µg/L	-16.951 ppb	19:18:56
3	Ba 233.527†	46342.8	45392.5	1090.0 µg/L	1090.0 ppb	19:18:56
3	Be 313.107†	13110.9	15692.9	8.3740 µg/L	8.3740 ppb	19:18:56
3	Cd 226.502†	198.4	335.9	-0.1240 µg/L	-0.1240 ppb	19:19:17
3	Co 228.616†	1280.6	1251.9	51.554 µg/L	51.554 ppb	19:19:17
3	Cr 267.716†	4575.1	4530.0	91.070 µg/L	91.070 ppb	19:18:56
3	Cu 324.752†	39257.0	35893.8	244.84 µg/L	244.84 ppb	19:18:56
3	Mn 257.610†	1404110.8	1375058.0	4315.6 µg/L	4315.6 ppb	19:18:51
3	Mo 202.031†	63.6	67.6	9.5066 µg/L	9.5066 ppb	19:19:17
3	Ni 231.604†	1741.2	1392.5	70.336 µg/L	70.336 ppb	19:19:17
3	P 214.914†	487.0	461.5	841.83 µg/L	841.83 ppb	19:19:17
3	Pb 220.353†	851.0	742.3	179.84 µg/L	179.84 ppb	19:19:17
3	S 181.975 Axial†	262.7	238.3	988.06 µg/L	988.06 ppb	19:19:17
3	Sb 206.836†	34.1	10.8	7.4482 µg/L	7.4482 ppb	19:19:17
3	Se 196.026†	-16.3	-35.2	142.07 µg/L	142.07 ppb	19:19:17
3	SiO2†	119056.4	115179.7	22735 µg/L	22735 ppb	19:18:56
3	Si 251.611†	148210.4	144806.0	11008 µg/L	11008 ppb	19:18:51
3	Sn 189.927†	-6.5	-6.7	-9.5933 µg/L	-9.5933 ppb	19:19:17
3	Ti 334.940†	1139036.3	1115085.5	2466.2 µg/L	2466.2 ppb	19:18:51
3	Tl 190.801†	-44.4	-21.1	24.857 µg/L	24.857 ppb	19:19:17
3	U 409.014†	1358.7	1407.4	105.28 µg/L	105.28 ppb	19:18:51
3	V 292.402†	13721.7	13480.1	140.68 µg/L	140.68 ppb	19:18:56
3	Zn 213.857†	9704.9	8967.9	205.43 µg/L	205.43 ppb	19:18:56

Mean Data: 245688012|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2015236.6	102.65 %	0.971			0.95%
Sc RADIAL	57747.1	102 %	0.5			0.48%
Y 371.029	1435788.2	106.14 %	0.992			0.93%
Ag 328.068†	-882.3	-0.8746 µg/L	0.18791	-0.8746 ppb	0.18791	21.48%
Al 396.153Radial†	72082.6	50144 µg/L	354.0	50144 ppb	354.0	0.71%
As 188.979†	14.2	28.962 µg/L	4.3283	28.962 ppb	4.3283	14.94%
B 249.677†	572.0	-15.972 µg/L	0.8876	-15.972 ppb	0.8876	5.56%
Ba 233.527†	46877.0	1125.6 µg/L	33.56	1125.6 ppb	33.56	2.98%
Be 313.107†	16313.7	8.7164 µg/L	0.31219	8.7164 ppb	0.31219	3.58%
Ca 317.933Radial†	21282.7	18179 µg/L	67.4	18179 ppb	67.4	0.37%
Cd 226.502†	352.9	0.3346 µg/L	0.40299	0.3346 ppb	0.40299	120.43%
Co 228.616†	1355.0	56.081 µg/L	3.9556	56.081 ppb	3.9556	7.05%
Cr 267.716†	4710.6	94.700 µg/L	3.3374	94.700 ppb	3.3374	3.52%
Cu 324.752†	37172.6	253.15 µg/L	7.803	253.15 ppb	7.803	3.08%
Fe 238.204 Radial†	9582.7	75579 µg/L	352.6	75579 ppb	352.6	0.47%
K 766.490 Radial†	14907.5	9736.3 µg/L	78.25	9736.3 ppb	78.25	0.80%
Mg 279.077 IEC†	1339.3	11891 µg/L	60.4	11891 ppb	60.4	0.51%
Mn 257.610†	1408004.4	4418.8 µg/L	91.12	4418.8 ppb	91.12	2.06%
Mo 202.031†	69.0	9.6296 µg/L	0.22450	9.6296 ppb	0.22450	2.33%
Na 589.592 Radial†	1340.0	411.56 µg/L	3.648	411.56 ppb	3.648	0.89%

Ni 231.604†	1484.2	74.898 µg/L	4.1361	74.898 ppb	4.1361	5.52%
P 214.914†	508.3	933.86 µg/L	80.889	933.86 ppb	80.889	8.66%
Pb 220.353†	773.4	187.38 µg/L	6.738	187.38 ppb	6.738	3.60%
S 181.975 Axial†	251.5	1043.1 µg/L	51.98	1043.1 ppb	51.98	4.98%
Sb 206.836†	10.3	6.9206 µg/L	1.45034	6.9206 ppb	1.45034	20.96%
Se 196.026†	-37.5	138.24 µg/L	3.836	138.24 ppb	3.836	2.77%
SiO2†	118872.1	23464 µg/L	689.3	23464 ppb	689.3	2.94%
Si 251.611†	147738.8	11231 µg/L	195.2	11231 ppb	195.2	1.74%
Sn 189.927†	-2.1	-7.6213 µg/L	1.86083	-7.6213 ppb	1.86083	24.42%
Sr 421.552†	21402.6	197.44 µg/L	1.055	197.44 ppb	1.055	0.53%
Ti 334.940†	1145920.3	2534.4 µg/L	60.25	2534.4 ppb	60.25	2.38%
Tl 190.801†	-26.2	19.170 µg/L	5.4940	19.170 ppb	5.4940	28.66%
U 409.014†	1433.3	107.47 µg/L	1.911	107.47 ppb	1.911	1.78%
V 292.402†	13993.6	145.66 µg/L	4.466	145.66 ppb	4.466	3.07%
Zn 213.857†	9261.2	212.29 µg/L	6.380	212.29 ppb	6.380	3.01%



Sequence No.: 31  
 Sample ID: 245688013|954751|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 325  
 Date Collected: 2/19/2010 19:19:27  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: 245688013|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56607.2	56607.2	100 %		19:19:59
1	Al 396.153Radial†	21597.3	21547.4	14989 µg/L	14989 ppb	19:19:59
1	Ca 317.933Radial†	11540.0	11306.0	9657.3 µg/L	9657.3 ppb	19:19:59
1	Fe 238.204 Radial†	10913.4	10875.3	85773 µg/L	85773 ppb	19:19:59
1	K 766.490 Radial†	5829.5	5653.0	3692.1 µg/L	3692.1 ppb	19:19:59
1	Mg 279.077 IEC†	396.5	382.9	3331.0 µg/L	3331.0 ppb	19:20:20
1	Na 589.592 Radial†	5166.6	4684.3	1438.7 µg/L	1438.7 ppb	19:19:59
1	Sr 421.552†	6045.0	6004.2	55.390 µg/L	55.390 ppb	19:19:59
1	Sc 361.383	1974940.0	1974940.0	100.60 %		19:21:24
1	Y 371.029	1486906.0	1486906.0	109.92 %		19:21:24
1	Ag 328.068†	-1338.2	-928.6	-1.3119 µg/L	-1.3119 ppb	19:21:30
1	As 188.979†	10.1	10.5	23.294 µg/L	23.294 ppb	19:21:50
1	B 249.677†	664.1	276.0	-33.116 µg/L	-33.116 ppb	19:21:30
1	Ba 233.527†	14537.2	14467.3	347.36 µg/L	347.36 ppb	19:21:30
1	Be 313.107†	6345.8	9163.5	4.8819 µg/L	4.8819 ppb	19:21:30
1	Cd 226.502†	149.2	290.0	-2.3266 µg/L	-2.3266 ppb	19:21:50
1	Co 228.616†	342.7	338.7	12.300 µg/L	12.300 ppb	19:21:50
1	Cr 267.716†	12207.4	12184.7	244.75 µg/L	244.75 ppb	19:21:30
1	Cu 324.752†	7502.6	4913.9	43.998 µg/L	43.998 ppb	19:21:30
1	Mn 257.610†	743928.8	739732.4	2327.8 µg/L	2327.8 ppb	19:21:24
1	Mo 202.031†	91.7	96.5	12.705 µg/L	12.705 ppb	19:21:50
1	Ni 231.604†	3020.5	2690.1	135.19 µg/L	135.19 ppb	19:21:50
1	P 214.914†	408.7	390.9	705.23 µg/L	705.23 ppb	19:21:50
1	Pb 220.353†	445.6	352.0	83.304 µg/L	83.304 ppb	19:21:50
1	S 181.975 Axial†	34.0	14.8	61.463 µg/L	61.463 ppb	19:21:50
1	Sb 206.836†	30.5	7.8	3.6822 µg/L	3.6822 ppb	19:21:50
1	Se 196.026†	-35.6	-54.7	151.92 µg/L	151.92 ppb	19:21:50
1	SiO2†	74234.7	72398.8	14291 µg/L	14291 ppb	19:21:30
1	Si 251.611†	88482.9	87642.7	6662.8 µg/L	6662.8 ppb	19:21:30
1	Sn 189.927†	11.2	10.8	-4.2639 µg/L	-4.2639 ppb	19:21:50
1	Ti 334.940†	664681.8	660528.6	1461.1 µg/L	1461.1 ppb	19:21:24
1	Tl 190.801†	-38.5	-15.9	13.700 µg/L	13.700 ppb	19:21:50
1	U 409.014†	-2515.0	-2422.9	-213.82 µg/L	-213.82 ppb	19:21:24
1	V 292.402†	2510.4	2540.1	35.277 µg/L	35.277 ppb	19:21:30
1	Zn 213.857†	19077.8	18429.2	427.46 µg/L	427.46 ppb	19:21:30
2	Sc RADIAL	56821.0	56821.0	101 %		19:20:25
2	Al 396.153Radial†	21841.1	21708.7	15102 µg/L	15102 ppb	19:20:25
2	Ca 317.933Radial†	11614.8	11337.1	9683.9 µg/L	9683.9 ppb	19:20:25
2	Fe 238.204 Radial†	11085.8	11005.7	86801 µg/L	86801 ppb	19:20:25
2	K 766.490 Radial†	5903.5	5704.7	3725.8 µg/L	3725.8 ppb	19:20:25
2	Mg 279.077 IEC†	401.5	386.3	3360.5 µg/L	3360.5 ppb	19:20:46
2	Na 589.592 Radial†	5206.1	4704.1	1444.8 µg/L	1444.8 ppb	19:20:25
2	Sr 421.552†	6082.9	6019.2	55.528 µg/L	55.528 ppb	19:20:25
2	Sc 361.383	2055054.6	2055054.6	104.68 %		19:21:58
2	Y 371.029	1538136.3	1538136.3	113.70 %		19:21:58
2	Ag 328.068†	-1408.6	-943.9	-1.3665 µg/L	-1.3665 ppb	19:22:03
2	As 188.979†	6.7	6.9	16.793 µg/L	16.793 ppb	19:22:24
2	B 249.677†	655.3	241.8	-35.059 µg/L	-35.059 ppb	19:22:03
2	Ba 233.527†	14570.3	13935.6	334.60 µg/L	334.60 ppb	19:22:03
2	Be 313.107†	6314.7	8887.9	4.7518 µg/L	4.7518 ppb	19:22:03
2	Cd 226.502†	167.2	301.4	-2.1653 µg/L	-2.1653 ppb	19:22:24
2	Co 228.616†	352.1	334.4	12.286 µg/L	12.286 ppb	19:22:24
2	Cr 267.716†	12217.9	11721.7	235.45 µg/L	235.45 ppb	19:22:03
2	Cu 324.752†	7516.7	4636.7	42.332 µg/L	42.332 ppb	19:22:03
2	Mn 257.610†	728426.5	696095.7	2191.2 µg/L	2191.2 ppb	19:21:58
2	Mo 202.031†	84.3	85.8	11.703 µg/L	11.703 ppb	19:22:24
2	Ni 231.604†	2964.0	2519.1	126.68 µg/L	126.68 ppb	19:22:24
2	P 214.914†	398.3	365.2	653.73 µg/L	653.73 ppb	19:22:24
2	Pb 220.353†	442.7	332.0	78.406 µg/L	78.406 ppb	19:22:24

2	S 181.975 Axial†	33.6	13.1	54.447 µg/L	54.447 ppb	19:22:24
2	Sb 206.836†	38.3	14.1	9.5809 µg/L	9.5809 ppb	19:22:24
2	Se 196.026†	-35.7	-53.4	156.55 µg/L	156.55 ppb	19:22:24
2	SiO2†	74472.6	69749.4	13768 µg/L	13768 ppb	19:22:03
2	Si 251.611†	88659.7	84382.8	6414.9 µg/L	6414.9 ppb	19:22:03
2	Sn 189.927†	9.4	8.6	-5.2837 µg/L	-5.2837 ppb	19:22:24
2	Ti 334.940†	649961.2	620709.6	1373.0 µg/L	1373.0 ppb	19:21:58
2	Tl 190.801†	-42.1	-17.8	10.040 µg/L	10.040 ppb	19:22:24
2	U 409.014†	-2458.1	-2271.1	-201.35 µg/L	-201.35 ppb	19:21:58
2	V 292.402†	2515.9	2448.1	34.485 µg/L	34.485 ppb	19:22:03
2	Zn 213.857†	19130.9	17740.7	411.30 µg/L	411.30 ppb	19:22:03
3	Sc RADIAL	56560.0	56560.0	100 %		19:20:51
3	Al 396.153Radial†	21717.5	21685.5	15085 µg/L	15085 ppb	19:20:51
3	Ca 317.933Radial†	11544.2	11319.8	9669.1 µg/L	9669.1 ppb	19:20:51
3	Fe 238.204 Radial†	10980.5	10951.5	86374 µg/L	86374 ppb	19:20:51
3	K 766.490 Radial†	5827.8	5656.2	3694.1 µg/L	3694.1 ppb	19:20:51
3	Mg 279.077 IEC†	394.6	381.4	3316.4 µg/L	3316.4 ppb	19:21:12
3	Na 589.592 Radial†	5123.0	4645.0	1426.7 µg/L	1426.7 ppb	19:20:51
3	Sr 421.552†	6104.4	6068.6	55.984 µg/L	55.984 ppb	19:20:51
3	Sc 361.383	2049717.0	2049717.0	104.41 %		19:22:31
3	Y 371.029	1527225.8	1527225.8	112.90 %		19:22:31
3	Ag 328.068†	-1336.3	-878.3	-0.9151 µg/L	-0.9151 ppb	19:22:37
3	As 188.979†	5.1	5.3	14.038 µg/L	14.038 ppb	19:22:57
3	B 249.677†	638.1	227.0	-35.472 µg/L	-35.472 ppb	19:22:37
3	Ba 233.527†	13590.9	13033.8	312.94 µg/L	312.94 ppb	19:22:37
3	Be 313.107†	5752.8	8365.4	4.4716 µg/L	4.4716 ppb	19:22:37
3	Cd 226.502†	110.7	247.7	-3.4684 µg/L	-3.4684 ppb	19:22:57
3	Co 228.616†	307.3	292.4	10.544 µg/L	10.544 ppb	19:22:57
3	Cr 267.716†	11167.9	10746.5	215.86 µg/L	215.86 ppb	19:22:37
3	Cu 324.752†	7193.9	4346.2	40.376 µg/L	40.376 ppb	19:22:37
3	Mn 257.610†	687852.5	659047.8	2075.2 µg/L	2075.2 ppb	19:22:31
3	Mo 202.031†	70.3	72.7	10.401 µg/L	10.401 ppb	19:22:57
3	Ni 231.604†	2693.5	2267.4	114.13 µg/L	114.13 ppb	19:22:57
3	P 214.914†	365.0	334.2	592.98 µg/L	592.98 ppb	19:22:57
3	Pb 220.353†	405.9	297.8	70.106 µg/L	70.106 ppb	19:22:57
3	S 181.975 Axial†	32.6	12.3	51.064 µg/L	51.064 ppb	19:22:57
3	Sb 206.836†	26.9	3.2	-0.2022 µg/L	-0.2022 ppb	19:22:57
3	Se 196.026†	-29.7	-47.8	163.32 µg/L	163.32 ppb	19:22:57
3	SiO2†	69319.9	64999.6	12830 µg/L	12830 ppb	19:22:37
3	Si 251.611†	82438.5	78644.9	5978.7 µg/L	5978.7 ppb	19:22:37
3	Sn 189.927†	16.5	15.4	-2.3585 µg/L	-2.3585 ppb	19:22:57
3	Ti 334.940†	611333.5	585330.6	1294.8 µg/L	1294.8 ppb	19:22:31
3	Tl 190.801†	-40.1	-16.0	11.123 µg/L	11.123 ppb	19:22:57
3	U 409.014†	-2274.8	-2101.6	-187.20 µg/L	-187.20 ppb	19:22:31
3	V 292.402†	2377.3	2321.6	33.161 µg/L	33.161 ppb	19:22:37
3	Zn 213.857†	17827.7	16540.1	383.22 µg/L	383.22 ppb	19:22:37

Mean Data: 245688013|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2026570.5	103.23 %	2.282			2.21%
Sc RADIAL	56662.7	100 %	0.2			0.25%
Y 371.029	1517422.7	112.17 %	1.995			1.78%
Ag 328.068†	-916.9	-1.1978 µg/L	0.24635	-1.1978 ppb	0.24635	20.57%
Al 396.153Radial†	21647.2	15059 µg/L	60.7	15059 ppb	60.7	0.40%
As 188.979†	7.6	18.041 µg/L	4.7525	18.041 ppb	4.7525	26.34%
B 249.677†	248.3	-34.549 µg/L	1.2580	-34.549 ppb	1.2580	3.64%
Ba 233.527†	13812.2	331.63 µg/L	17.400	331.63 ppb	17.400	5.25%
Be 313.107†	8805.6	4.7018 µg/L	0.20968	4.7018 ppb	0.20968	4.46%
Ca 317.933Radial†	11320.9	9670.1 µg/L	13.30	9670.1 ppb	13.30	0.14%
Cd 226.502†	279.7	-2.6534 µg/L	0.71035	-2.6534 ppb	0.71035	26.77%
Co 228.616†	321.8	11.710 µg/L	1.0096	11.710 ppb	1.0096	8.62%
Cr 267.716†	11551.0	232.02 µg/L	14.746	232.02 ppb	14.746	6.36%
Cu 324.752†	4632.3	42.235 µg/L	1.8130	42.235 ppb	1.8130	4.29%
Fe 238.204 Radial†	10944.2	86316 µg/L	516.5	86316 ppb	516.5	0.60%
K 766.490 Radial†	5671.3	3704.0 µg/L	18.91	3704.0 ppb	18.91	0.51%
Mg 279.077 IEC†	383.5	3336.0 µg/L	22.46	3336.0 ppb	22.46	0.67%
Mn 257.610†	698292.0	2198.1 µg/L	126.43	2198.1 ppb	126.43	5.75%
Mo 202.031†	85.0	11.603 µg/L	1.1555	11.603 ppb	1.1555	9.96%
Na 589.592 Radial†	4677.8	1436.7 µg/L	9.23	1436.7 ppb	9.23	0.64%

Ni 231.604†	2492.2	125.34 µg/L	10.595	125.34 ppb	10.595	8.45%
P 214.914†	363.4	650.65 µg/L	56.189	650.65 ppb	56.189	8.64%
Pb 220.353†	327.3	77.272 µg/L	6.6716	77.272 ppb	6.6716	8.63%
S 181.975 Axial†	13.4	55.658 µg/L	5.3040	55.658 ppb	5.3040	9.53%
Sb 206.836†	8.4	4.3536 µg/L	4.92601	4.3536 ppb	4.92601	113.15%
Se 196.026†	-51.9	157.26 µg/L	5.732	157.26 ppb	5.732	3.64%
SiO2†	69049.3	13629 µg/L	740.0	13629 ppb	740.0	5.43%
Si 251.611†	83556.8	6352.2 µg/L	346.31	6352.2 ppb	346.31	5.45%
Sn 189.927†	11.6	-3.9687 µg/L	1.48476	-3.9687 ppb	1.48476	37.41%
Sr 421.552†	6030.7	55.634 µg/L	0.3108	55.634 ppb	0.3108	0.56%
Ti 334.940†	622189.6	1376.3 µg/L	83.23	1376.3 ppb	83.23	6.05%
Tl 190.801†	-16.6	11.621 µg/L	1.8803	11.621 ppb	1.8803	16.18%
U 409.014†	-2265.2	-200.79 µg/L	13.315	-200.79 ppb	13.315	6.63%
V 292.402†	2436.6	34.308 µg/L	1.0688	34.308 ppb	1.0688	3.12%
Zn 213.857†	17570.0	407.33 µg/L	22.390	407.33 ppb	22.390	5.50%

Sequence No.: 32

Sample ID: 245688014|954751|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 326

Date Collected: 2/19/2010 19:23:08

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245688014|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57832.8	57832.8	102 %		19:23:40
1	Al 396.153Radial†	55283.5	53997.9	37564 µg/L	37564 ppb	19:23:40
1	Ca 317.933Radial†	14064.9	13528.4	11556 µg/L	11556 ppb	19:24:01
1	Fe 238.204 Radial†	11174.3	10899.4	85963 µg/L	85963 ppb	19:24:01
1	K 766.490 Radial†	14044.2	13554.5	8852.7 µg/L	8852.7 ppb	19:23:40
1	Mg 279.077 IEC†	1010.4	974.2	8616.4 µg/L	8616.4 ppb	19:24:01
1	Na 589.592 Radial†	2299.1	1773.7	544.79 µg/L	544.79 ppb	19:23:40
1	Sr 421.552†	14416.4	14054.3	129.65 µg/L	129.65 ppb	19:23:40
1	Sc 361.383	2026432.5	2026432.5	103.23 %		19:25:05
1	Y 371.029	1436492.5	1436492.5	106.19 %		19:25:05
1	Ag 328.068†	-1529.0	-1079.7	-1.5742 µg/L	-1.5742 ppb	19:25:11
1	As 188.979†	13.7	13.7	28.907 µg/L	28.907 ppb	19:25:31
1	B 249.677†	964.0	549.7	-22.209 µg/L	-22.209 ppb	19:25:11
1	Ba 233.527†	27612.8	26767.1	642.88 µg/L	642.88 ppb	19:25:11
1	Be 313.107†	11514.2	14010.2	7.3211 µg/L	7.3211 ppb	19:25:11
1	Cd 226.502†	209.8	345.0	-1.0220 µg/L	-1.0220 ppb	19:25:31
1	Co 228.616†	1175.5	1136.8	46.045 µg/L	46.045 ppb	19:25:31
1	Cr 267.716†	7724.7	7533.7	151.41 µg/L	151.41 ppb	19:25:11
1	Cu 324.752†	16452.3	13394.5	99.381 µg/L	99.381 ppb	19:25:11
1	Mn 257.610†	940823.3	911684.8	2866.0 µg/L	2866.0 ppb	19:25:05
1	Mo 202.031†	46.7	50.6	8.2206 µg/L	8.2206 ppb	19:25:31
1	Ni 231.604†	2147.4	1767.9	89.187 µg/L	89.187 ppb	19:25:31
1	P 214.914†	399.9	372.0	668.27 µg/L	668.27 ppb	19:25:31
1	Pb 220.353†	672.9	560.9	135.07 µg/L	135.07 ppb	19:25:31
1	S 181.975 Axial†	174.1	149.7	620.86 µg/L	620.86 ppb	19:25:31
1	Sb 206.836†	33.9	10.3	6.8466 µg/L	6.8466 ppb	19:25:31
1	Se 196.026†	-29.5	-47.9	156.81 µg/L	156.81 ppb	19:25:31
1	SiO2†	110325.5	105487.0	20822 µg/L	20822 ppb	19:25:11
1	Si 251.611†	132590.1	128136.9	9741.2 µg/L	9741.2 ppb	19:25:11
1	Sn 189.927†	-8.2	-8.3	-11.701 µg/L	-11.701 ppb	19:25:31
1	Ti 334.940†	1217585.5	1179368.9	2608.5 µg/L	2608.5 ppb	19:25:05
1	Tl 190.801†	-57.9	-33.7	4.4792 µg/L	4.4792 ppb	19:25:31
1	U 409.014†	-728.8	-629.0	-64.912 µg/L	-64.912 ppb	19:25:05
1	V 292.402†	16135.0	15675.6	163.21 µg/L	163.21 ppb	19:25:11
1	Zn 213.857†	12379.7	11458.5	263.73 µg/L	263.73 ppb	19:25:11
2	Sc RADIAL	57772.8	57772.8	102 %		19:24:06
2	Al 396.153Radial†	55506.4	54272.0	37754 µg/L	37754 ppb	19:24:06
2	Ca 317.933Radial†	14108.3	13585.2	11604 µg/L	11604 ppb	19:24:27
2	Fe 238.204 Radial†	11214.5	10950.0	86363 µg/L	86363 ppb	19:24:27
2	K 766.490 Radial†	14043.4	13568.0	8861.5 µg/L	8861.5 ppb	19:24:06
2	Mg 279.077 IEC†	1017.1	981.8	8683.8 µg/L	8683.8 ppb	19:24:27
2	Na 589.592 Radial†	2331.0	1807.3	555.10 µg/L	555.10 ppb	19:24:06
2	Sr 421.552†	14484.2	14135.2	130.40 µg/L	130.40 ppb	19:24:06
2	Sc 361.383	2015360.0	2015360.0	102.66 %		19:25:38
2	Y 371.029	1429282.2	1429282.2	105.66 %		19:25:38
2	Ag 328.068†	-1476.7	-1036.8	-1.2162 µg/L	-1.2162 ppb	19:25:44
2	As 188.979†	15.8	15.9	32.873 µg/L	32.873 ppb	19:26:05
2	B 249.677†	941.2	532.6	-23.112 µg/L	-23.112 ppb	19:25:44
2	Ba 233.527†	27823.2	27119.0	651.33 µg/L	651.33 ppb	19:25:44
2	Be 313.107†	11622.1	14176.5	7.4199 µg/L	7.4199 ppb	19:25:44
2	Cd 226.502†	199.6	336.1	-1.2885 µg/L	-1.2885 ppb	19:26:05
2	Co 228.616†	1155.3	1123.4	45.437 µg/L	45.437 ppb	19:26:05
2	Cr 267.716†	7750.1	7599.6	152.74 µg/L	152.74 ppb	19:25:44
2	Cu 324.752†	16388.6	13420.0	99.603 µg/L	99.603 ppb	19:25:44
2	Mn 257.610†	935519.5	911525.9	2865.6 µg/L	2865.6 ppb	19:25:38
2	Mo 202.031†	44.5	48.7	8.0525 µg/L	8.0525 ppb	19:26:05
2	Ni 231.604†	2117.4	1750.2	88.308 µg/L	88.308 ppb	19:26:05
2	P 214.914†	381.4	356.2	636.64 µg/L	636.64 ppb	19:26:05
2	Pb 220.353†	660.3	552.3	132.95 µg/L	132.95 ppb	19:26:05

2	S 181.975 Axial†	173.1	149.7	620.67 µg/L	620.67 ppb	19:26:05
2	Sb 206.836†	39.7	16.2	12.216 µg/L	12.216 ppb	19:26:05
2	Se 196.026†	-35.2	-53.6	149.78 µg/L	149.78 ppb	19:26:05
2	SiO2†	111234.0	106959.2	21112 µg/L	21112 ppb	19:25:44
2	Si 251.611†	133609.4	129835.5	9870.3 µg/L	9870.3 ppb	19:25:44
2	Sn 189.927†	3.2	2.8	-7.0780 µg/L	-7.0780 ppb	19:26:05
2	Ti 334.940†	1210758.2	1179199.0	2608.1 µg/L	2608.1 ppb	19:25:38
2	Tl 190.801†	-51.2	-27.5	12.733 µg/L	12.733 ppb	19:26:05
2	U 409.014†	-460.5	-371.5	-43.574 µg/L	-43.574 ppb	19:25:38
2	V 292.402†	16294.9	15917.3	165.64 µg/L	165.64 ppb	19:25:44
2	Zn 213.857†	12457.4	11600.1	267.03 µg/L	267.03 ppb	19:25:44
3	Sc RADIAL	58443.6	58443.6	103 %		19:24:32
3	Al 396.153Radial†	56136.6	54258.1	37745 µg/L	37745 ppb	19:24:32
3	Ca 317.933Radial†	13960.2	13283.6	11347 µg/L	11347 ppb	19:24:52
3	Fe 238.204 Radial†	11113.3	10726.3	84598 µg/L	84598 ppb	19:24:52
3	K 766.490 Radial†	14207.3	13568.8	8862.0 µg/L	8862.0 ppb	19:24:32
3	Mg 279.077 IEC†	1007.4	961.0	8500.0 µg/L	8500.0 ppb	19:24:52
3	Na 589.592 Radial†	2373.3	1822.0	559.60 µg/L	559.60 ppb	19:24:32
3	Sr 421.552†	14606.5	14090.9	129.99 µg/L	129.99 ppb	19:24:32
3	Sc 361.383	2027678.8	2027678.8	103.29 %		19:26:12
3	Y 371.029	1435928.1	1435928.1	106.15 %		19:26:12
3	Ag 328.068†	-1469.9	-1021.5	-1.2934 µg/L	-1.2934 ppb	19:26:17
3	As 188.979†	16.1	16.1	33.086 µg/L	33.086 ppb	19:26:38
3	B 249.677†	934.9	521.0	-22.688 µg/L	-22.688 ppb	19:26:17
3	Ba 233.527†	26034.6	25222.8	605.79 µg/L	605.79 ppb	19:26:17
3	Be 313.107†	10552.6	13072.3	6.8095 µg/L	6.8095 ppb	19:26:17
3	Cd 226.502†	169.7	306.0	-1.8492 µg/L	-1.8492 ppb	19:26:38
3	Co 228.616†	1045.9	1010.6	40.575 µg/L	40.575 ppb	19:26:38
3	Cr 267.716†	7108.4	6932.5	139.33 µg/L	139.33 ppb	19:26:17
3	Cu 324.752†	15496.2	12459.1	93.085 µg/L	93.085 ppb	19:26:17
3	Mn 257.610†	907020.8	878398.3	2761.6 µg/L	2761.6 ppb	19:26:12
3	Mo 202.031†	34.6	38.8	7.0191 µg/L	7.0191 ppb	19:26:38
3	Ni 231.604†	1939.8	1565.7	79.096 µg/L	79.096 ppb	19:26:38
3	P 214.914†	360.5	333.7	594.11 µg/L	594.11 ppb	19:26:38
3	Pb 220.353†	622.6	511.8	123.19 µg/L	123.19 ppb	19:26:38
3	S 181.975 Axial†	163.1	139.0	576.26 µg/L	576.26 ppb	19:26:38
3	Sb 206.836†	34.7	11.1	7.6463 µg/L	7.6463 ppb	19:26:38
3	Se 196.026†	-23.9	-42.5	160.80 µg/L	160.80 ppb	19:26:38
3	SiO2†	103743.1	99048.4	19551 µg/L	19551 ppb	19:26:17
3	Si 251.611†	124532.6	120257.0	9142.2 µg/L	9142.2 ppb	19:26:17
3	Sn 189.927†	-9.8	-9.8	-12.220 µg/L	-12.220 ppb	19:26:38
3	Ti 334.940†	1163080.0	1125873.8	2490.2 µg/L	2490.2 ppb	19:26:12
3	Tl 190.801†	-48.5	-24.5	14.844 µg/L	14.844 ppb	19:26:38
3	U 409.014†	-562.9	-467.9	-51.326 µg/L	-51.326 ppb	19:26:12
3	V 292.402†	15115.2	14678.7	153.31 µg/L	153.31 ppb	19:26:17
3	Zn 213.857†	11695.0	10788.2	248.13 µg/L	248.13 ppb	19:26:17

Mean Data: 245688014|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2023157.1	103.06 %	0.345			0.34%
Sc RADIAL	58016.4	103 %	0.7			0.64%
Y 371.029	1433901.0	106.00 %	0.296			0.28%
Ag 328.068†	-1046.0	-1.3613 µg/L	0.18836	-1.3613 ppb	0.18836	13.84%
Al 396.153Radial†	54176.0	37688 µg/L	107.4	37688 ppb	107.4	0.29%
As 188.979†	15.2	31.622 µg/L	2.3538	31.622 ppb	2.3538	7.44%
B 249.677†	534.4	-22.669 µg/L	0.4516	-22.669 ppb	0.4516	1.99%
Ba 233.527†	26369.6	633.33 µg/L	24.227	633.33 ppb	24.227	3.83%
Be 313.107†	13753.0	7.1835 µg/L	0.32763	7.1835 ppb	0.32763	4.56%
Ca 317.933Radial†	13465.7	11502 µg/L	136.9	11502 ppb	136.9	1.19%
Cd 226.502†	329.0	-1.3866 µg/L	0.42226	-1.3866 ppb	0.42226	30.45%
Co 228.616†	1090.3	44.019 µg/L	2.9982	44.019 ppb	2.9982	6.81%
Cr 267.716†	7355.3	147.83 µg/L	7.388	147.83 ppb	7.388	5.00%
Cu 324.752†	13091.2	97.357 µg/L	3.7007	97.357 ppb	3.7007	3.80%
Fe 238.204 Radial†	10858.6	85641 µg/L	925.5	85641 ppb	925.5	1.08%
K 766.490 Radial†	13563.8	8858.7 µg/L	5.26	8858.7 ppb	5.26	0.06%
Mg 279.077 IEC†	972.3	8600.1 µg/L	92.98	8600.1 ppb	92.98	1.08%
Mn 257.610†	900536.3	2831.1 µg/L	60.15	2831.1 ppb	60.15	2.12%
Mo 202.031†	46.1	7.7641 µg/L	0.65064	7.7641 ppb	0.65064	8.38%
Na 589.592 Radial†	1801.0	553.16 µg/L	7.594	553.16 ppb	7.594	1.37%

Ni 231.604†	1694.6	85.530 µg/L	5.5900	85.530 ppb	5.5900	6.54%
P 214.914†	353.9	633.01 µg/L	37.214	633.01 ppb	37.214	5.88%
Pb 220.353†	541.7	130.40 µg/L	6.338	130.40 ppb	6.338	4.86%
S 181.975 Axial†	146.1	605.93 µg/L	25.691	605.93 ppb	25.691	4.24%
Sb 206.836†	12.5	8.9029 µg/L	2.89669	8.9029 ppb	2.89669	32.54%
Se 196.026†	-48.0	155.80 µg/L	5.580	155.80 ppb	5.580	3.58%
SiO2†	103831.5	20495 µg/L	830.4	20495 ppb	830.4	4.05%
Si 251.611†	126076.5	9584.6 µg/L	388.54	9584.6 ppb	388.54	4.05%
Sn 189.927†	-5.1	-10.333 µg/L	2.8306	-10.333 ppb	2.8306	27.39%
Sr 421.552†	14093.4	130.01 µg/L	0.374	130.01 ppb	0.374	0.29%
Ti 334.940†	1161480.6	2568.9 µg/L	68.21	2568.9 ppb	68.21	2.66%
Tl 190.801†	-28.6	10.685 µg/L	5.4775	10.685 ppb	5.4775	51.26%
U 409.014†	-489.4	-53.271 µg/L	10.8013	-53.271 ppb	10.8013	20.28%
V 292.402†	15423.9	160.72 µg/L	6.529	160.72 ppb	6.529	4.06%
Zn 213.857†	11282.3	259.63 µg/L	10.096	259.63 ppb	10.096	3.89%

Sequence No.: 33  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/19/2010 19:26:47  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58011.2	58011.2	103 %		19:27:24
1	Al 396.153Radial†	7306.1	7107.9	4934.0 µg/L	4934.0 ppb	19:27:24
1	Ca 317.933Radial†	6126.5	5755.1	4915.9 µg/L	4915.9 ppb	19:27:44
1	Fe 238.204 Radial†	670.2	636.1	5027.8 µg/L	5027.8 ppb	19:27:44
1	K 766.490 Radial†	7850.1	7480.0	4885.3 µg/L	4885.3 ppb	19:27:24
1	Mg 279.077 IEC†	589.4	561.2	5020.1 µg/L	5020.1 ppb	19:27:44
1	Na 589.592 Radial†	33642.4	32291.3	9918.0 µg/L	9918.0 ppb	19:27:24
1	Sr 421.552†	53727.7	52295.2	482.43 µg/L	482.43 ppb	19:27:24
1	Sc 361.383	2023941.6	2023941.6	103.10 %		19:28:48
1	Y 371.029	1390155.2	1390155.2	102.76 %		19:28:48
1	Ag 328.068†	68263.9	66614.1	497.07 µg/L	497.07 ppb	19:28:53
1	As 188.979†	297.5	289.1	517.08 µg/L	517.08 ppb	19:29:14
1	B 249.677†	12754.8	11987.3	486.76 µg/L	486.76 ppb	19:28:53
1	Ba 233.527†	21527.5	20897.6	502.60 µg/L	502.60 ppb	19:28:53
1	Be 313.107†	859738.4	836757.9	496.43 µg/L	496.43 ppb	19:28:48
1	Cd 226.502†	20670.0	20190.5	503.51 µg/L	503.51 ppb	19:28:53
1	Co 228.616†	11554.6	11205.5	506.90 µg/L	506.90 ppb	19:28:53
1	Cr 267.716†	25881.7	25154.3	505.55 µg/L	505.55 ppb	19:28:53
1	Cu 324.752†	81255.0	76269.5	498.55 µg/L	498.55 ppb	19:28:53
1	Mn 257.610†	166147.8	161410.9	505.93 µg/L	505.93 ppb	19:28:48
1	Mo 202.031†	5454.8	5296.3	518.83 µg/L	518.83 ppb	19:29:14
1	Ni 231.604†	10745.9	10110.7	503.47 µg/L	503.47 ppb	19:28:53
1	P 214.914†	1361.8	1305.6	2537.4 µg/L	2537.4 ppb	19:29:14
1	Pb 220.353†	2266.4	2107.4	512.48 µg/L	512.48 ppb	19:29:14
1	S 181.975 Axial†	273.5	246.4	1021.7 µg/L	1021.7 ppb	19:29:14
1	Sb 206.836†	610.7	569.8	525.42 µg/L	525.42 ppb	19:29:14
1	Se 196.026†	395.7	364.5	519.83 µg/L	519.83 ppb	19:29:14
1	SiO2†	29524.0	27245.2	5377.9 µg/L	5377.9 ppb	19:28:53
1	Si 251.611†	34545.7	33196.9	2523.7 µg/L	2523.7 ppb	19:28:53
1	Sn 189.927†	1282.8	1243.9	524.60 µg/L	524.60 ppb	19:29:14
1	Ti 334.940†	231474.2	224343.1	495.98 µg/L	495.98 ppb	19:28:48
1	Tl 190.801†	382.2	393.1	516.55 µg/L	516.55 ppb	19:29:14
1	U 409.014†	6240.4	6130.0	508.31 µg/L	508.31 ppb	19:28:53
1	V 292.402†	52860.7	51317.0	506.38 µg/L	506.38 ppb	19:28:53
1	Zn 213.857†	22851.7	21630.6	503.94 µg/L	503.94 ppb	19:28:53
2	Sc RADIAL	58208.4	58208.4	103 %		19:27:50
2	Al 396.153Radial†	7271.3	7050.0	4894.0 µg/L	4894.0 ppb	19:27:50
2	Ca 317.933Radial†	6163.6	5771.0	4929.4 µg/L	4929.4 ppb	19:28:10
2	Fe 238.204 Radial†	675.5	639.1	5051.0 µg/L	5051.0 ppb	19:28:10
2	K 766.490 Radial†	7866.0	7469.5	4878.5 µg/L	4878.5 ppb	19:27:50
2	Mg 279.077 IEC†	590.4	560.2	5010.8 µg/L	5010.8 ppb	19:28:10
2	Na 589.592 Radial†	33660.4	32197.8	9889.3 µg/L	9889.3 ppb	19:27:50
2	Sr 421.552†	53698.2	52089.4	480.53 µg/L	480.53 ppb	19:27:50
2	Sc 361.383	2026589.1	2026589.1	103.23 %		19:29:21
2	Y 371.029	1392880.6	1392880.6	102.97 %		19:29:21
2	Ag 328.068†	68809.4	67056.0	500.36 µg/L	500.36 ppb	19:29:27
2	As 188.979†	296.8	288.0	515.16 µg/L	515.16 ppb	19:29:47
2	B 249.677†	12885.4	12097.7	491.25 µg/L	491.25 ppb	19:29:27
2	Ba 233.527†	21677.5	21015.6	505.43 µg/L	505.43 ppb	19:29:27
2	Be 313.107†	865418.2	841170.5	499.05 µg/L	499.05 ppb	19:29:21
2	Cd 226.502†	20826.2	20315.7	506.63 µg/L	506.63 ppb	19:29:27
2	Co 228.616†	11598.5	11233.3	508.15 µg/L	508.15 ppb	19:29:27
2	Cr 267.716†	26109.2	25341.9	509.31 µg/L	509.31 ppb	19:29:27
2	Cu 324.752†	81892.1	76783.6	501.90 µg/L	501.90 ppb	19:29:27
2	Mn 257.610†	167199.4	162219.0	508.46 µg/L	508.46 ppb	19:29:21
2	Mo 202.031†	5288.0	5127.7	502.33 µg/L	502.33 ppb	19:29:47
2	Ni 231.604†	10828.5	10177.0	506.78 µg/L	506.78 ppb	19:29:27
2	P 214.914†	1324.9	1268.1	2462.5 µg/L	2462.5 ppb	19:29:47
2	Pb 220.353†	2219.6	2059.1	500.70 µg/L	500.70 ppb	19:29:47

2	S 181.975 Axial†	269.0	241.6	1001.9 µg/L	1001.9 ppb	19:29:47
2	Sb 206.836†	585.9	545.1	502.40 µg/L	502.40 ppb	19:29:47
2	Se 196.026†	401.2	369.3	526.64 µg/L	526.64 ppb	19:29:47
2	SiO2†	29674.8	27353.9	5399.3 µg/L	5399.3 ppb	19:29:27
2	Si 251.611†	34681.9	33285.1	2530.4 µg/L	2530.4 ppb	19:29:27
2	Sn 189.927†	1240.2	1201.0	506.52 µg/L	506.52 ppb	19:29:47
2	Ti 334.940†	232768.0	225303.0	498.10 µg/L	498.10 ppb	19:29:21
2	Tl 190.801†	370.9	381.6	501.66 µg/L	501.66 ppb	19:29:47
2	U 409.014†	6213.7	6096.2	505.50 µg/L	505.50 ppb	19:29:27
2	V 292.402†	53162.8	51542.6	508.46 µg/L	508.46 ppb	19:29:27
2	Zn 213.857†	22978.8	21724.8	506.12 µg/L	506.12 ppb	19:29:27
3	Sc RADIAL	57939.2	57939.2	103 %		19:28:16
3	Al 396.153Radial†	7262.7	7074.4	4912.9 µg/L	4912.9 ppb	19:28:16
3	Ca 317.933Radial†	6172.6	5807.6	4960.7 µg/L	4960.7 ppb	19:28:36
3	Fe 238.204 Radial†	672.1	638.8	5047.6 µg/L	5047.6 ppb	19:28:36
3	K 766.490 Radial†	7867.0	7506.0	4902.3 µg/L	4902.3 ppb	19:28:16
3	Mg 279.077 IEC†	596.5	568.8	5086.0 µg/L	5086.0 ppb	19:28:36
3	Na 589.592 Radial†	33675.5	32364.3	9940.5 µg/L	9940.5 ppb	19:28:16
3	Sr 421.552†	53684.5	52318.1	482.64 µg/L	482.64 ppb	19:28:16
3	Sc 361.383	2019244.9	2019244.9	102.86 %		19:29:54
3	Y 371.029	1386733.2	1386733.2	102.51 %		19:29:54
3	Ag 328.068†	63032.4	61682.0	460.10 µg/L	460.10 ppb	19:30:00
3	As 188.979†	244.2	237.9	425.60 µg/L	425.60 ppb	19:30:20
3	B 249.677†	11714.9	11005.2	446.60 µg/L	446.60 ppb	19:30:00
3	Ba 233.527†	19107.8	18593.8	447.17 µg/L	447.17 ppb	19:30:00
3	Be 313.107†	780455.8	761618.7	451.85 µg/L	451.85 ppb	19:29:54
3	Cd 226.502†	18286.2	17919.6	446.80 µg/L	446.80 ppb	19:30:00
3	Co 228.616†	10093.7	9811.2	443.77 µg/L	443.77 ppb	19:30:00
3	Cr 267.716†	21917.3	21358.4	429.26 µg/L	429.26 ppb	19:30:00
3	Cu 324.752†	71787.5	67248.4	439.66 µg/L	439.66 ppb	19:30:00
3	Mn 257.610†	151706.1	147745.4	463.13 µg/L	463.13 ppb	19:29:54
3	Mo 202.031†	4317.7	4203.0	411.78 µg/L	411.78 ppb	19:30:20
3	Ni 231.604†	9445.6	8870.7	441.74 µg/L	441.74 ppb	19:30:00
3	P 214.914†	1095.4	1049.6	2035.1 µg/L	2035.1 ppb	19:30:20
3	Pb 220.353†	1899.2	1755.5	426.81 µg/L	426.81 ppb	19:30:20
3	S 181.975 Axial†	229.2	203.9	845.45 µg/L	845.45 ppb	19:30:20
3	Sb 206.836†	491.4	455.2	419.32 µg/L	419.32 ppb	19:30:20
3	Se 196.026†	335.0	306.4	438.20 µg/L	438.20 ppb	19:30:20
3	SiO2†	26768.8	24633.2	4862.3 µg/L	4862.3 ppb	19:30:00
3	Si 251.611†	31095.2	29920.3	2274.6 µg/L	2274.6 ppb	19:30:00
3	Sn 189.927†	986.7	958.9	404.42 µg/L	404.42 ppb	19:30:20
3	Ti 334.940†	208387.6	202420.4	447.48 µg/L	447.48 ppb	19:29:54
3	Tl 190.801†	323.7	337.1	443.33 µg/L	443.33 ppb	19:30:20
3	U 409.014†	5278.3	5208.6	431.75 µg/L	431.75 ppb	19:30:00
3	V 292.402†	45791.0	44563.0	439.48 µg/L	439.48 ppb	19:30:00
3	Zn 213.857†	20107.0	19013.7	442.90 µg/L	442.90 ppb	19:30:00

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2023258.5	103.06 %	0.189			0.18%
Sc RADIAL	58052.9	103 %	0.2			0.24%
Y 371.029	1389923.0	102.75 %	0.228			0.22%
Ag 328.068†	65117.4	485.84 µg/L	22.354	485.84 ppb	22.354	4.60%
QC value within limits for Ag 328.068 Recovery = 97.17%						
Al 396.153Radial†	7077.4	4913.6 µg/L	19.97	4913.6 ppb	19.97	0.41%
QC value within limits for Al 396.153Radial Recovery = 98.27%						
As 188.979†	271.6	485.95 µg/L	52.268	485.95 ppb	52.268	10.76%
QC value within limits for As 188.979 Recovery = 97.19%						
B 249.677†	11696.7	474.87 µg/L	24.588	474.87 ppb	24.588	5.18%
QC value within limits for B 249.677 Recovery = 94.97%						
Ba 233.527†	20169.0	485.07 µg/L	32.850	485.07 ppb	32.850	6.77%
QC value within limits for Ba 233.527 Recovery = 97.01%						
Be 313.107†	813182.4	482.44 µg/L	26.525	482.44 ppb	26.525	5.50%
QC value within limits for Be 313.107 Recovery = 96.49%						
Ca 317.933Radial†	5777.9	4935.4 µg/L	22.97	4935.4 ppb	22.97	0.47%
QC value within limits for Ca 317.933Radial Recovery = 98.71%						
Cd 226.502†	19475.3	485.65 µg/L	33.674	485.65 ppb	33.674	6.93%
QC value within limits for Cd 226.502 Recovery = 97.13%						
Co 228.616†	10750.0	486.27 µg/L	36.817	486.27 ppb	36.817	7.57%



Cr	267.716†	23951.5	481.37 µg/L	45.169	481.37 ppb	45.169	9.38%
Cu	324.752†	73433.8	480.04 µg/L	35.005	480.04 ppb	35.005	7.29%
Fe	238.204 Radial†	638.0	5042.1 µg/L	12.53	5042.1 ppb	12.53	0.25%
K	766.490 Radial†	7485.2	4888.7 µg/L	12.26	4888.7 ppb	12.26	0.25%
Mg	279.077 IEC†	563.4	5039.0 µg/L	41.01	5039.0 ppb	41.01	0.81%
Mn	257.610†	157125.1	492.51 µg/L	25.470	492.51 ppb	25.470	5.17%
Mo	202.031†	4875.7	477.65 µg/L	57.638	477.65 ppb	57.638	12.07%
Na	589.592 Radial†	32284.4	9915.9 µg/L	25.63	9915.9 ppb	25.63	0.26%
Ni	231.604†	9719.5	484.00 µg/L	36.636	484.00 ppb	36.636	7.57%
P	214.914†	1207.8	2345.0 µg/L	270.98	2345.0 ppb	270.98	11.56%
Pb	220.353†	1974.0	480.00 µg/L	46.437	480.00 ppb	46.437	9.67%
S	181.975 Axial†	230.6	956.35 µg/L	96.547	956.35 ppb	96.547	10.10%
Sb	206.836†	523.4	482.38 µg/L	55.814	482.38 ppb	55.814	11.57%
Se	196.026†	346.8	494.89 µg/L	49.212	494.89 ppb	49.212	9.94%
SiO2†		26410.8	5213.1 µg/L	304.05	5213.1 ppb	304.05	5.83%
Si	251.611†	32134.1	2442.9 µg/L	145.79	2442.9 ppb	145.79	5.97%
Sn	189.927†	1134.6	478.51 µg/L	64.799	478.51 ppb	64.799	13.54%
Sr	421.552†	52234.2	481.87 µg/L	1.162	481.87 ppb	1.162	0.24%
Ti	334.940†	217355.5	480.52 µg/L	28.636	480.52 ppb	28.636	5.96%
Tl	190.801†	370.6	487.18 µg/L	38.702	487.18 ppb	38.702	7.94%
U	409.014†	5811.6	481.85 µg/L	43.409	481.85 ppb	43.409	9.01%
V	292.402†	49140.8	484.77 µg/L	39.238	484.77 ppb	39.238	8.09%
Zn	213.857†	20789.7	484.32 µg/L	35.886	484.32 ppb	35.886	7.41%

QC value within limits for Co 228.616 Recovery = 97.25%  
 QC value within limits for Cr 267.716 Recovery = 96.27%  
 QC value within limits for Cu 324.752 Recovery = 96.01%  
 QC value within limits for Fe 238.204 Radial Recovery = 100.84%  
 QC value within limits for K 766.490 Radial Recovery = 97.77%  
 QC value within limits for Mg 279.077 IEC Recovery = 100.78%  
 QC value within limits for Mn 257.610 Recovery = 98.50%  
 QC value within limits for Mo 202.031 Recovery = 95.53%  
 QC value within limits for Na 589.592 Radial Recovery = 99.16%  
 QC value within limits for Ni 231.604 Recovery = 96.80%  
 QC value within limits for P 214.914 Recovery = 93.80%  
 QC value within limits for Pb 220.353 Recovery = 96.00%  
 QC value within limits for S 181.975 Axial Recovery = 95.63%  
 QC value within limits for Sb 206.836 Recovery = 96.48%  
 QC value within limits for Se 196.026 Recovery = 98.98%  
 QC value within limits for SiO2 Recovery = 97.49%  
 QC value within limits for Si 251.611 Recovery = 97.72%  
 QC value within limits for Sn 189.927 Recovery = 95.70%  
 QC value within limits for Sr 421.552 Recovery = 96.37%  
 QC value within limits for Ti 334.940 Recovery = 96.10%  
 QC value within limits for Tl 190.801 Recovery = 97.44%  
 QC value within limits for U 409.014 Recovery = 96.37%  
 QC value within limits for V 292.402 Recovery = 96.95%  
 QC value within limits for Zn 213.857 Recovery = 96.86%

All analyte(s) passed QC.

Sequence No.: 34

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/19/2010 19:30:31

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57803.7	57803.7	102 %		19:31:04
1	Al 396.153Radial†	-10.0	-17.1	-11.924 µg/L	-11.924 ppb	19:31:04
1	Ca 317.933Radial†	196.7	-19.1	-16.278 µg/L	-16.278 ppb	19:31:24
1	Fe 238.204 Radial†	20.4	3.4	26.456 µg/L	26.456 ppb	19:31:24
1	K 766.490 Radial†	206.4	36.8	24.007 µg/L	24.007 ppb	19:31:04
1	Mg 279.077 IEC†	12.2	-0.9	-8.3904 µg/L	-8.3904 ppb	19:31:24
1	Na 589.592 Radial†	467.0	-15.7	-4.8300 µg/L	-4.8300 ppb	19:31:04
1	Sr 421.552†	46.6	16.7	0.1542 µg/L	0.1542 ppb	19:31:04
1	Sc 361.383	2025799.3	2025799.3	103.19 %		19:32:26
1	Y 371.029	1395690.7	1395690.7	103.17 %		19:32:26
1	Ag 328.068†	-418.9	-4.3	-0.0299 µg/L	-0.0299 ppb	19:32:32
1	As 188.979†	5.7	6.0	10.690 µg/L	10.690 ppb	19:32:52
1	B 249.677†	346.4	-48.5	-1.9903 µg/L	-1.9903 ppb	19:32:52
1	Ba 233.527†	-10.1	7.3	0.1761 µg/L	0.1761 ppb	19:32:52
1	Be 313.107†	-2840.4	103.2	0.0611 µg/L	0.0611 ppb	19:32:32
1	Cd 226.502†	-141.4	4.7	0.1130 µg/L	0.1130 ppb	19:32:52
1	Co 228.616†	3.9	1.9	0.0851 µg/L	0.0851 ppb	19:32:52
1	Cr 267.716†	-52.3	-0.3	-0.0059 µg/L	-0.0059 ppb	19:32:32
1	Cu 324.752†	2589.2	-34.6	-0.2223 µg/L	-0.2223 ppb	19:32:32
1	Mn 257.610†	-125.9	134.0	0.4234 µg/L	0.4234 ppb	19:32:52
1	Mo 202.031†	-3.8	1.7	0.1637 µg/L	0.1637 ppb	19:32:52
1	Ni 231.604†	312.5	-9.5	-0.4735 µg/L	-0.4735 ppb	19:32:52
1	P 214.914†	19.0	3.1	6.0665 µg/L	6.0665 ppb	19:32:52
1	Pb 220.353†	87.4	-6.2	-1.5170 µg/L	-1.5170 ppb	19:32:52
1	S 181.975 Axial†	16.2	-3.2	-13.428 µg/L	-13.428 ppb	19:32:52
1	Sb 206.836†	17.3	-5.7	-5.2171 µg/L	-5.2171 ppb	19:32:52
1	Se 196.026†	14.6	-5.2	-7.2159 µg/L	-7.2159 ppb	19:32:52
1	SiO2†	1457.3	20.6	4.0713 µg/L	4.0713 ppb	19:32:32
1	Si 251.611†	367.4	45.4	3.4484 µg/L	3.4484 ppb	19:32:52
1	Sn 189.927†	2.9	2.5	1.0388 µg/L	1.0388 ppb	19:32:52
1	Ti 334.940†	320.1	135.2	0.2995 µg/L	0.2995 ppb	19:32:32
1	Tl 190.801†	-20.2	2.8	3.6951 µg/L	3.6951 ppb	19:32:52
1	U 409.014†	5.9	82.8	6.8777 µg/L	6.8777 ppb	19:32:32
1	V 292.402†	-40.7	5.3	0.0634 µg/L	0.0634 ppb	19:32:32
1	Zn 213.857†	538.4	-12.7	-0.2952 µg/L	-0.2952 ppb	19:32:52
2	Sc RADIAL	57446.2	57446.2	102 %		19:31:29
2	Al 396.153Radial†	-13.6	-20.7	-14.413 µg/L	-14.413 ppb	19:31:29
2	Ca 317.933Radial†	196.2	-18.3	-15.615 µg/L	-15.615 ppb	19:31:50
2	Fe 238.204 Radial†	16.6	-0.3	-2.1967 µg/L	-2.1967 ppb	19:31:50
2	K 766.490 Radial†	247.6	78.5	51.300 µg/L	51.300 ppb	19:31:29
2	Mg 279.077 IEC†	10.6	-2.4	-21.567 µg/L	-21.567 ppb	19:31:50
2	Na 589.592 Radial†	483.2	3.0	0.9277 µg/L	0.9277 ppb	19:31:29
2	Sr 421.552†	2.4	-26.4	-0.2440 µg/L	-0.2440 ppb	19:31:29
2	Sc 361.383	2031745.9	2031745.9	103.50 %		19:32:58
2	Y 371.029	1401392.4	1401392.4	103.60 %		19:32:58
2	Ag 328.068†	-396.7	18.3	0.1368 µg/L	0.1368 ppb	19:33:04
2	As 188.979†	0.2	0.6	1.1375 µg/L	1.1375 ppb	19:33:24
2	B 249.677†	348.5	-47.4	-1.9319 µg/L	-1.9319 ppb	19:33:24
2	Ba 233.527†	-17.3	0.3	0.0083 µg/L	0.0083 ppb	19:33:24
2	Be 313.107†	-2882.3	70.8	0.0419 µg/L	0.0419 ppb	19:33:04
2	Cd 226.502†	-137.7	8.6	0.2144 µg/L	0.2144 ppb	19:33:24
2	Co 228.616†	-1.5	-3.4	-0.1547 µg/L	-0.1547 ppb	19:33:24
2	Cr 267.716†	-68.0	-15.3	-0.3078 µg/L	-0.3078 ppb	19:33:04
2	Cu 324.752†	2609.0	-22.8	-0.1493 µg/L	-0.1493 ppb	19:33:04
2	Mn 257.610†	-117.6	142.3	0.4463 µg/L	0.4463 ppb	19:33:24
2	Mo 202.031†	-2.4	3.0	0.2951 µg/L	0.2951 ppb	19:33:24
2	Ni 231.604†	312.9	-10.0	-0.4983 µg/L	-0.4983 ppb	19:33:24
2	P 214.914†	11.5	-4.2	-8.3725 µg/L	-8.3725 ppb	19:33:24
2	Pb 220.353†	83.2	-10.5	-2.5612 µg/L	-2.5612 ppb	19:33:24

2	S 181.975 Axial†	19.8	0.2	0.8387 µg/L	0.8387 ppb	19:33:24
2	Sb 206.836†	25.4	2.1	1.9038 µg/L	1.9038 ppb	19:33:24
2	Se 196.026†	16.0	-3.9	-5.4218 µg/L	-5.4218 ppb	19:33:24
2	SiO2†	1425.4	-14.3	-2.8218 µg/L	-2.8218 ppb	19:33:04
2	Si 251.611†	386.0	62.4	4.7401 µg/L	4.7401 ppb	19:33:24
2	Sn 189.927†	-0.4	-0.8	-0.3347 µg/L	-0.3347 ppb	19:33:24
2	Ti 334.940†	346.5	159.8	0.3550 µg/L	0.3550 ppb	19:33:04
2	Tl 190.801†	-19.1	3.9	5.0976 µg/L	5.0976 ppb	19:33:24
2	U 409.014†	-2.7	74.5	6.1922 µg/L	6.1922 ppb	19:33:04
2	V 292.402†	-29.1	16.7	0.1702 µg/L	0.1702 ppb	19:33:04
2	Zn 213.857†	529.8	-22.5	-0.5234 µg/L	-0.5234 ppb	19:33:24
3	Sc RADIAL	56634.0	56634.0	100 %		19:31:55
3	Al 396.153Radial†	3.4	-4.0	-2.7853 µg/L	-2.7853 ppb	19:31:55
3	Ca 317.933Radial†	194.5	-17.2	-14.719 µg/L	-14.719 ppb	19:32:16
3	Fe 238.204 Radial†	18.7	2.1	16.416 µg/L	16.416 ppb	19:32:16
3	K 766.490 Radial†	165.0	-0.4	-0.2546 µg/L	-0.2546 ppb	19:31:55
3	Mg 279.077 IEC†	11.4	-1.4	-12.921 µg/L	-12.921 ppb	19:32:16
3	Na 589.592 Radial†	499.6	26.2	8.0527 µg/L	8.0527 ppb	19:31:55
3	Sr 421.552†	20.0	-8.9	-0.0818 µg/L	-0.0818 ppb	19:31:55
3	Sc 361.383	2031784.6	2031784.6	103.50 %		19:33:30
3	Y 371.029	1401143.1	1401143.1	103.58 %		19:33:30
3	Ag 328.068†	-447.4	-30.7	-0.2248 µg/L	-0.2248 ppb	19:33:36
3	As 188.979†	-3.2	-2.6	-4.7006 µg/L	-4.7006 ppb	19:33:57
3	B 249.677†	355.0	-41.1	-1.6835 µg/L	-1.6835 ppb	19:33:57
3	Ba 233.527†	-12.0	5.5	0.1329 µg/L	0.1329 ppb	19:33:57
3	Be 313.107†	-2752.0	196.7	0.1167 µg/L	0.1167 ppb	19:33:36
3	Cd 226.502†	-133.4	12.8	0.3163 µg/L	0.3163 ppb	19:33:57
3	Co 228.616†	5.6	3.5	0.1593 µg/L	0.1593 ppb	19:33:57
3	Cr 267.716†	-3.9	46.6	0.9367 µg/L	0.9367 ppb	19:33:36
3	Cu 324.752†	2597.8	-33.7	-0.2180 µg/L	-0.2180 ppb	19:33:36
3	Mn 257.610†	-109.9	149.9	0.4720 µg/L	0.4720 ppb	19:33:57
3	Mo 202.031†	-0.0	5.3	0.5227 µg/L	0.5227 ppb	19:33:57
3	Ni 231.604†	321.2	-2.0	-0.0983 µg/L	-0.0983 ppb	19:33:57
3	P 214.914†	15.7	-0.2	-0.3967 µg/L	-0.3967 ppb	19:33:57
3	Pb 220.353†	93.0	-1.1	-0.2629 µg/L	-0.2629 ppb	19:33:57
3	S 181.975 Axial†	17.9	-1.7	-6.9059 µg/L	-6.9059 ppb	19:33:57
3	Sb 206.836†	24.5	1.2	1.0976 µg/L	1.0976 ppb	19:33:57
3	Se 196.026†	13.0	-6.8	-9.4419 µg/L	-9.4419 ppb	19:33:57
3	SiO2†	1471.5	30.2	5.9619 µg/L	5.9619 ppb	19:33:36
3	Si 251.611†	378.8	55.4	4.2091 µg/L	4.2091 ppb	19:33:57
3	Sn 189.927†	1.2	0.8	0.3212 µg/L	0.3212 ppb	19:33:57
3	Ti 334.940†	295.3	110.3	0.2447 µg/L	0.2447 ppb	19:33:36
3	Tl 190.801†	-22.9	0.3	0.3574 µg/L	0.3574 ppb	19:33:57
3	U 409.014†	-14.1	63.5	5.2725 µg/L	5.2725 ppb	19:33:36
3	V 292.402†	-25.9	19.7	0.2057 µg/L	0.2057 ppb	19:33:36
3	Zn 213.857†	530.6	-21.8	-0.5098 µg/L	-0.5098 ppb	19:33:57

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2029776.6	103.40 %	0.175			0.17%
Sc RADIAL	57294.7	101 %	1.1			1.05%
Y 371.029	1399408.7	103.45 %	0.238			0.23%
Ag 328.068†	-5.5	-0.0393 µg/L	0.18096	-0.0393 ppb	0.18096	460.14%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-13.9	-9.7076 µg/L	6.12268	-9.7076 ppb	6.12268	63.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.3	2.3757 µg/L	7.76979	2.3757 ppb	7.76979	327.05%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-45.7	-1.8686 µg/L	0.16289	-1.8686 ppb	0.16289	8.72%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.4	0.1057 µg/L	0.08714	0.1057 ppb	0.08714	82.40%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	123.6	0.0732 µg/L	0.03884	0.0732 ppb	0.03884	53.04%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-18.2	-15.537 µg/L	0.7823	-15.537 ppb	0.7823	5.04%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	8.7	0.2146 µg/L	0.10166	0.2146 ppb	0.10166	47.38%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.7	0.0299 µg/L	0.16412	0.0299 ppb	0.16412	548.91%

Cr	267.716†	10.3	0.2077 µg/L	0.64914	0.2077 ppb	0.64914	312.58%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-30.4	-0.1965 µg/L	0.04097	-0.1965 ppb	0.04097	20.85%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	1.7	13.558 µg/L	14.5386	13.558 ppb	14.5386	107.23%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	38.3	25.017 µg/L	25.7921	25.017 ppb	25.7921	103.10%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-1.6	-14.293 µg/L	6.6944	-14.293 ppb	6.6944	46.84%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	142.1	0.4473 µg/L	0.02431	0.4473 ppb	0.02431	5.44%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	3.3	0.3272 µg/L	0.18162	0.3272 ppb	0.18162	55.51%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	4.5	1.3835 µg/L	6.45342	1.3835 ppb	6.45342	466.47%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-7.2	-0.3567 µg/L	0.22417	-0.3567 ppb	0.22417	62.84%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-0.5	-0.9009 µg/L	7.23268	-0.9009 ppb	7.23268	802.85%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-5.9	-1.4470 µg/L	1.15074	-1.4470 ppb	1.15074	79.52%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-1.6	-6.4984 µg/L	7.14204	-6.4984 ppb	7.14204	109.90%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	-0.8	-0.7386 µg/L	3.89940	-0.7386 ppb	3.89940	527.97%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-5.3	-7.3599 µg/L	2.01391	-7.3599 ppb	2.01391	27.36%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		12.2	2.4038 µg/L	4.62317	2.4038 ppb	4.62317	192.33%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	54.4	4.1325 µg/L	0.64925	4.1325 ppb	0.64925	15.71%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	0.8	0.3418 µg/L	0.68701	0.3418 ppb	0.68701	201.02%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-6.2	-0.0572 µg/L	0.20025	-0.0572 ppb	0.20025	350.12%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	135.1	0.2997 µg/L	0.05511	0.2997 ppb	0.05511	18.39%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	2.3	3.0500 µg/L	2.43504	3.0500 ppb	2.43504	79.84%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	73.6	6.1141 µg/L	0.80544	6.1141 ppb	0.80544	13.17%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	13.9	0.1464 µg/L	0.07408	0.1464 ppb	0.07408	50.58%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	-19.0	-0.4428 µg/L	0.12799	-0.4428 ppb	0.12799	28.90%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

## ICPMS#3 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Wednesday, February 24, 2010 10:54:04

Sample Description:

Method File: c:\elandata\Method\daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.6305

Tuning File: c:\elandata\Tuning\default2.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

Number of Replicates: 5

### Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD
Be	9.0		491.8		491.808		9.258		1.9
Mg	24.0		4360.9		4360.866		82.243		1.9
Co	58.9		14176.4		14176.431		126.046		0.9
Rh	102.9		39998.7		39998.719		148.690		0.4
In	114.9		60912.6		60912.590		369.100		0.6
Pb	208.0		41242.1		41242.058		652.789		1.6
[> Ba	137.9		44699.4		44699.400		505.116		1.1
[ Ba++	69.0		841.8		0.019		0.001		2.7
[> Ce	139.9		58883.1		58883.129		961.641		1.6
[ CeO	155.9		1397.3		0.024		0.000		0.9
Bkgd	220.0		1.8		1.800		0.975		54.1

### Current Optimization File Data

Current Value	Description
1.06	Nebulizer Gas Flow
6.50	Lens Voltage
1450.00	ICP RF Power
-1855.00	Analog Stage Voltage
1350.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

### Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	25	6.5	750.0
Co	59	25	7.8	14952.5
In	115	25	9.0	94906.9

## ICPMS#3 Instrument Tuning Report

File Name: 100224.tun  
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.1	590	2060	0.634
Be	9.0	9.0	2068	2060	0.633
Mg	24.0	24.0	5706	2110	0.589
Mg	25.0	25.0	5920	2020	0.661
Mg	26.0	26.0	6214	2140	0.637
Co	58.9	59.0	14209	2115	0.625
Rh	102.9	102.9	24899	2165	0.661
In	114.9	114.9	27824	2180	0.656
Ce	139.9	139.9	33912	2220	0.621
Pb	206.0	206.0	49992	2280	0.619
Pb	207.0	207.0	50296	2310	0.656
Pb	208.0	208.0	50474	2300	0.637
U	238.1	238.1	57851	2340	0.666

## ICPMS#3 - Summary Report

Sample ID: Blank

Sample Date/Time: Wednesday, February 24, 2010 11:00:14

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\Blank.001

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9		ug/L		2	
> Sc	45		ug/L		169674	
Ni	60		ug/L		16	
[> Ge	74		ug/L		90066	
As	75		ug/L		89	
Se	77		ug/L		801	
Se	82		ug/L		22	
Kr	83		ug/L		17	
[> Lu	175		ug/L		142193	
Tl	205		ug/L		76	
U	238		ug/L		76	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
U	238	Simple Linear	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
> Sc	45					
Ni	60					
[> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
[> Lu	175					
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: Blank

Report Date/Time: Wednesday, February 24, 2010 11:00:58

Page 1

## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#3 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Wednesday, February 24, 2010 11:02:56

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\Standard 1.002

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	10.000	ug/L	11.353	438	0.003
[ > Sc	45		ug/L		167918	167918.234
[ Ni	60	10.000	ug/L	15.937	2404	0.014
[ > Ge	74		ug/L		87137	87137.149
[ As	75	10.000	ug/L	3.097	2708	0.030
[ Se	77		ug/L		1215	0.005
[ Se	82	10.000	ug/L	2.149	257	0.003
[ Kr	83		ug/L		13	-0.000
[ > Lu	175		ug/L		140318	140317.693
[ Tl	205	10.000	ug/L	2.472	65460	0.466
[ U	238	10.000	ug/L	5.578	90208	0.643

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
[ > Sc	45					
[ Ni	60					
[ > Ge	74					
[ As	75					
[ Se	77					
[ Se	82					
[ Kr	83					
[ > Lu	175					
[ Tl	205					
[ U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: Standard 1

Report Date/Time: Wednesday, February 24, 2010 11:03:38

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Wednesday, February 24, 2010 11:05:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\Standard 2.003

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	99.865 ug/L	15.048	3734	0.023
[>	Sc	45	ug/L		163679	163678.747
[	Ni	60	99.980 ug/L	12.258	22928	0.141
[>	Ge	74	ug/L		86355	86355.077
	As	75	99.998 ug/L	1.810	26011	0.300
	Se	77	ug/L		3000	0.026
	Se	82	100.049 ug/L	0.555	2484	0.029
[	Kr	83	ug/L		18	0.000
[>	Lu	175	ug/L		139407	139406.634
	Tl	205	99.972 ug/L	1.218	631983	4.533
[	U	238	99.976 ug/L	0.642	874726	6.274

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
[>	Sc	45				
[	Ni	60				
[>	Ge	74				
	As	75				
	Se	77				
	Se	82				
[	Kr	83				
[>	Lu	175				
	Tl	205				
[	U	238				

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: Standard 2

Report Date/Time: Wednesday, February 24, 2010 11:06:18

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Wednesday, February 24, 2010 11:08:17

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 1.004

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.414	ug/L	10.252	1998	0.012
Sc	45		ug/L		168463	168462.510
Ni	60	49.710	ug/L	5.547	11835	0.070
Ge	74		ug/L		88009	88009.149
As	75	47.817	ug/L	2.163	12720	0.144
Se	77		ug/L		2027	0.014
Se	82	51.151	ug/L	3.522	1305	0.015
Kr	83		ug/L		17	0.000
Lu	175		ug/L		139615	139614.985
Tl	205	49.156	ug/L	0.932	311242	2.229
U	238	53.183	ug/L	1.529	466037	3.338

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	102.828				
Sc	45		99.3			
Ni	60	99.419				
Ge	74		97.7			
As	75	95.634				
Se	77					
Se	82	102.301				
Kr	83					
Lu	175		98.2			
Tl	205	98.313				
U	238	106.367				

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 1

Report Date/Time: Wednesday, February 24, 2010 11:08:59

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## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Wednesday, February 24, 2010 11:11:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 2.005

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	-0.018	ug/L	208.575	2	-0.000
[ > Sc	45		ug/L		175005	175005.013
[ Ni	60	-0.015	ug/L	67.162	13	-0.000
[ > Ge	74		ug/L		92259	92258.576
[ As	75	-0.289	ug/L	106.096	10	-0.001
[ Se	77		ug/L		889	0.001
[ Se	82	0.464	ug/L	58.565	34	0.000
[ Kr	83		ug/L		17	-0.000
[ > Lu	175		ug/L		142412	142411.917
[ Tl	205	0.139	ug/L	5.844	970	0.006
[ U	238	0.008	ug/L	20.174	145	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
[ > Sc	45		103.1			
[ Ni	60					
[ > Ge	74		102.4			
[ As	75					
[ Se	77					
[ Se	82					
[ Kr	83					
[ > Lu	175		100.2			
[ Tl	205					
[ U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 2

Report Date/Time: Wednesday, February 24, 2010 11:11:44

Page 1

## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#3 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Wednesday, February 24, 2010 11:13:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 3.006

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.641	ug/L	22.091	29	0.000
> Sc	45		ug/L		180783	180782.820
Ni	60	2.015	ug/L	7.587	531	0.003
> Ge	74		ug/L		89719	89718.779
As	75	5.218	ug/L	4.478	1494	0.016
Se	77		ug/L		1026	0.003
Se	82	5.031	ug/L	7.306	150	0.001
Kr	83		ug/L		17	0.000
> Lu	175		ug/L		142826	142825.851
Tl	205	1.105	ug/L	2.033	7234	0.050
U	238	0.241	ug/L	0.603	2237	0.015

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	128.224				
> Sc	45		106.5			
Ni	60	100.739				
> Ge	74		99.6			
As	75	104.354				
Se	77					
Se	82	100.629				
Kr	83					
> Lu	175		100.4			
Tl	205	110.536				
U	238	120.517				

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 3

Report Date/Time: Wednesday, February 24, 2010 11:14:25

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Wednesday, February 24, 2010 11:16:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 4.007

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.076	ug/L	58.330	4	0.000
[>	Sc 45		ug/L		138183	138182.906
[	Ni 60	2.931	ug/L	6.538	585	0.004
[>	Ge 74		ug/L		71243	71243.252
	As 75	1.057	ug/L	50.833	296	0.003
	Se 77		ug/L		1407	0.011
	Se 82	-0.733	ug/L	196.517	2	-0.000
[	Kr 83		ug/L		64	0.001
[>	Lu 175		ug/L		108523	108522.806
	Tl 205	0.063	ug/L	1.662	367	0.003
[	U 238	0.003	ug/L	41.275	75	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9					
[>	Sc 45		81.4			
[	Ni 60	88.553				
[>	Ge 74		79.1			
	As 75					
	Se 77					
	Se 82					
[	Kr 83					
[>	Lu 175		76.3			
	Tl 205					
[	U 238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Ge 74 Int Std for QCGe		74
Lu 175 Int Std for QCLu		175

Sample ID: QC Std 4

Report Date/Time: Wednesday, February 24, 2010 11:17:07

Page 1

## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Wednesday, February 24, 2010 11:19:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 5.008

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	13.374	ug/L	5.727	444	0.003
>	Sc 45		ug/L		143219	143219.393
[	Ni 60	19.092	ug/L	2.315	3876	0.027
>	Ge 74		ug/L		71808	71808.175
	As 75	21.639	ug/L	2.885	4734	0.065
	Se 77		ug/L		1484	0.012
	Se 82	20.558	ug/L	1.707	438	0.006
[	Kr 83		ug/L		67	0.001
>	Lu 175		ug/L		108466	108466.371
	Tl 205	19.805	ug/L	1.216	97443	0.898
[	U 238	22.490	ug/L	1.628	153123	1.411

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9	66.870				
>	Sc 45		84.4			
[	Ni 60	81.904				
>	Ge 74		79.7			
	As 75	108.197				
	Se 77					
	Se 82	102.789				
[	Kr 83					
>	Lu 175		76.3			
	Tl 205	99.023				
[	U 238	112.450				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Be	9ICsAB is out of limits
Ge 74 Int Std for QCGe		74
Lu 175 Int Std for QQLu		175

Sample ID: QC Std 5

Report Date/Time: Wednesday, February 24, 2010 11:19:49

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## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 24, 2010 11:21:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 6.009

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	48.424	ug/L	2.401	1938	0.011
> Sc	45		ug/L		173600	173599.704
[ Ni	60	47.512	ug/L	6.661	11620	0.067
> Ge	74		ug/L		85776	85775.933
[ As	75	47.099	ug/L	1.716	12213	0.141
Se	77		ug/L		1953	0.014
Se	82	49.199	ug/L	1.411	1224	0.014
[ Kr	83		ug/L		17	0.000
> Lu	175		ug/L		135822	135822.080
Tl	205	48.042	ug/L	1.947	295900	2.178
[ U	238	52.884	ug/L	1.769	450832	3.319

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9	96.847				
> Sc	45		102.3			
[ Ni	60	95.025				
> Ge	74		95.2			
As	75	94.198				
Se	77					
Se	82	98.399				
[ Kr	83					
> Lu	175		95.5			
Tl	205	96.083				
[ U	238	105.768				

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 6

Report Date/Time: Wednesday, February 24, 2010 11:22:32

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## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 24, 2010 11:24:34

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 7.010

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.006 ug/L	1018.072	3	0.000
[>	Sc	45	ug/L		182827	182826.867
[	Ni	60	-0.024 ug/L	20.983	11	-0.000
[>	Ge	74	ug/L		90398	90398.394
[	As	75	0.571 ug/L	16.041	244	0.002
[	Se	77	ug/L		878	0.001
[	Se	82	-0.055 ug/L	234.066	20	-0.000
[	Kr	83	ug/L		19	0.000
[>	Lu	175	ug/L		138394	138394.320
[	Tl	205	0.130 ug/L	4.042	890	0.006
[	U	238	0.005 ug/L	48.393	117	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
[>	Sc	45	107.8			
[	Ni	60				
[>	Ge	74	100.4			
[	As	75				
[	Se	77				
[	Se	82				
[	Kr	83				
[>	Lu	175	97.3			
[	Tl	205				
[	U	238				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 7

Report Date/Time: Wednesday, February 24, 2010 11:25:18

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## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 1202030852

Sample Date/Time: Wednesday, February 24, 2010 11:27:17

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\1202030852.011

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.028	ug/L	47.313	1	-0.000
> Sc	45		ug/L		182818	182817.591
Ni	60	0.132	ug/L	20.600	51	0.000
> Ge	74		ug/L		86707	86707.251
As	75	0.214	ug/L	138.999	140	0.001
Se	77		ug/L		876	0.001
Se	82	0.048	ug/L	335.447	22	0.000
Kr	83		ug/L		16	-0.000
> Lu	175		ug/L		142648	142647.762
Tl	205	0.075	ug/L	9.761	560	0.003
U	238	0.003	ug/L	65.656	99	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
> Sc	45		107.7			
Ni	60					
> Ge	74		96.3			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		100.3			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202030852

Report Date/Time: Wednesday, February 24, 2010 11:27:59

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## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 245688001

Sample Date/Time: Wednesday, February 24, 2010 11:32:41

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688001.013

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	1.747	ug/L	9.208	81	0.000
> Sc 45		ug/L		195273	195273.075
[ Ni 60	14.726	ug/L	5.602	4076	0.021
> Ge 74		ug/L		83592	83592.041
[ As 75	5.560	ug/L	10.521	1477	0.017
Se 77		ug/L		765	0.000
Se 82	0.549	ug/L	53.820	33	0.000
[ Kr 83		ug/L		38	0.000
> Lu 175		ug/L		137131	137130.756
Tl 205	0.815	ug/L	6.149	5137	0.037
[ U 238	26.965	ug/L	0.729	232133	1.692

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
> Sc 45		115.1			
[ Ni 60					
> Ge 74		92.8			
As 75					
Se 77					
Se 82					
[ Kr 83					
> Lu 175		96.4			
Tl 205					
[ U 238					

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: 245688001

Report Date/Time: Wednesday, February 24, 2010 11:33:24

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## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 1202030853

Sample Date/Time: Wednesday, February 24, 2010 11:35:24

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\1202030853.014

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	2.079	ug/L	12.321	86	0.000
> Sc	45		ug/L		174173	174173.258
[ Ni	60	17.257	ug/L	1.249	4265	0.024
> Ge	74		ug/L		83061	83060.623
[ As	75	5.709	ug/L	9.649	1504	0.017
[ Se	77		ug/L		737	-0.000
[ Se	82	-1.014	ug/L	273.048	-4	-0.000
[ Kr	83		ug/L		62	0.001
> Lu	175		ug/L		137733	137732.575
[ Tl	205	0.525	ug/L	1.938	3350	0.024
[ U	238	30.293	ug/L	2.310	261887	1.901

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
> Sc	45		102.7			
[ Ni	60					
> Ge	74		92.2			
[ As	75					
[ Se	77					
[ Se	82					
[ Kr	83					
> Lu	175		96.9			
[ Tl	205					
[ U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202030853

Report Date/Time: Wednesday, February 24, 2010 11:36:07

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## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#3 - Summary Report

Sample ID: 1202030855

Sample Date/Time: Wednesday, February 24, 2010 11:38:08

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\1202030855.015

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	20.251	ug/L	12.130	890	0.005
Sc	45		ug/L		191584	191583.914
Ni	60	38.022	ug/L	12.367	10211	0.054
Ge	74		ug/L		83065	83065.307
As	75	39.190	ug/L	0.449	9855	0.118
Se	77		ug/L		907	0.002
Se	82	6.256	ug/L	8.188	168	0.002
Kr	83		ug/L		45	0.000
Lu	175		ug/L		137813	137813.319
Tl	205	44.240	ug/L	2.014	276464	2.006
U	238	54.151	ug/L	1.414	468380	3.398

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	..Dup. Rel. % Diff
Be	9					
Sc	45		112.9			
Ni	60					
Ge	74		92.2			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		96.9			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202030855

Report Date/Time: Wednesday, February 24, 2010 11:38:51

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## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 1202030856

Sample Date/Time: Wednesday, February 24, 2010 11:40:52

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 948035[2]prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\1202030856.016

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	21.948	ug/L	9.207	964	0.005
[> Sc 45		ug/L		190532	190531.949
[ Ni 60	36.957	ug/L	6.784	9959	0.052
[> Ge 74		ug/L		83629	83628.906
[ As 75	40.387	ug/L	1.823	10223	0.121
[ Se 77		ug/L		854	0.001
[ Se 82	7.254	ug/L	2.197	193	0.002
[ Kr 83		ug/L		41	0.000
[> Lu 175		ug/L		140066	140065.563
[ Tl 205	46.642	ug/L	3.073	296149	2.115
[ U 238	52.108	ug/L	3.141	457914	3.270

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
[> Sc 45		112.3			
[ Ni 60					
[> Ge 74		92.9			
[ As 75					
[ Se 77					
[ Se 82					
[ Kr 83					
[> Lu 175		98.5			
[ Tl 205					
[ U 238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202030856

Report Date/Time: Wednesday, February 24, 2010 11:41:36

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## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 1202030854

Sample Date/Time: Wednesday, February 24, 2010 11:43:37

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 948035|10|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\1202030854.017

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.423 ug/L	11.196	21	0.000
[>	Sc	45	ug/L		191520	191520.282
[	Ni	60	3.195 ug/L	5.257	882	0.005
[>	Ge	74	ug/L		86628	86628.118
[	As	75	1.352 ug/L	3.667	437	0.004
[	Se	77	ug/L		943	0.002
[	Se	82	-0.357 ug/L	91.794	12	-0.000
[	Kr	83	ug/L		21	0.000
[>	Lu	175	ug/L		137592	137591.879
[	Tl	205	0.293 ug/L	4.218	1902	0.013
[	U	238	5.381 ug/L	1.869	46537	0.338

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
[>	Sc	45		112.9		
[	Ni	60				
[>	Ge	74		96.2		
[	As	75				
[	Se	77				
[	Se	82				
[	Kr	83				
[>	Lu	175		96.8		
[	Tl	205				
[	U	238				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202030854

Report Date/Time: Wednesday, February 24, 2010 11:44:21

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## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 245688002

Sample Date/Time: Wednesday, February 24, 2010 11:46:21

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035[2]prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688002.018

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	1.670	ug/L	6.858	78	0.000
> Sc	45		ug/L		195649	195649.417
[ Ni	60	23.093	ug/L	2.091	6405	0.033
> Ge	74		ug/L		84537	84537.253
[ As	75	5.861	ug/L	8.053	1570	0.018
[ Se	77		ug/L		788	0.000
[ Se	82	-0.244	ug/L	280.623	14	-0.000
[ Kr	83		ug/L		53	0.000
> Lu	175		ug/L		143921	143920.775
[ Tl	205	0.327	ug/L	1.160	2212	0.015
[ U	238	3.012	ug/L	2.027	27277	0.189

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
> Sc	45		115.3			
[ Ni	60					
> Ge	74		93.9			
[ As	75					
[ Se	77					
[ Se	82					
[ Kr	83					
> Lu	175		101.2			
[ Tl	205					
[ U	238					

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: 245688002

Report Date/Time: Wednesday, February 24, 2010 11:47:03

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## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#3 - Summary Report

Sample ID: 245688003

Sample Date/Time: Wednesday, February 24, 2010 11:49:03

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688003.019

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	3.275	ug/L	6.880	147	0.001
> Sc	45		ug/L		191745	191745.251
[ Ni	60	25.807	ug/L	10.910	6955	0.036
[> Ge	74		ug/L		83136	83136.423
As	75	6.534	ug/L	3.740	1713	0.020
Se	77		ug/L		751	0.000
Se	82	-0.365	ug/L	27.977	11	-0.000
[ Kr	83		ug/L		51	0.000
[> Lu	175		ug/L		140037	140037.120
Tl	205	0.376	ug/L	2.965	2463	0.017
[ U	238	4.870	ug/L	1.298	42879	0.306

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
> Sc	45		113.0			
[ Ni	60					
[> Ge	74		92.3			
As	75					
Se	77					
Se	82					
[ Kr	83					
[> Lu	175		98.5			
Tl	205					
[ U	238					

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: 245688003

Report Date/Time: Wednesday, February 24, 2010 11:49:46

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## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 245688004

Sample Date/Time: Wednesday, February 24, 2010 11:51:47

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688004.020

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	2.157	ug/L	18.317	106	0.000
>	Sc 45		ug/L		208970	208969.546
[	Ni 60	21.053	ug/L	4.661	6233	0.030
[>	Ge 74		ug/L		82713	82712.927
	As 75	7.259	ug/L	4.732	1884	0.022
	Se 77		ug/L		716	-0.000
	Se 82	-1.236	ug/L	29.112	-9	-0.000
[	Kr 83		ug/L		51	0.000
[>	Lu 175		ug/L		135319	135318.567
	Tl 205	0.469	ug/L	2.921	2946	0.021
[	U 238	9.817	ug/L	2.972	83448	0.616

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9					
>	Sc 45		123.2			
[	Ni 60					
[>	Ge 74		91.8			
	As 75					
	Se 77					
	Se 82					
[	Kr 83					
[>	Lu 175		95.2			
	Tl 205					
[	U 238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for sarrSc		45

Sample ID: 245688004

Report Date/Time: Wednesday, February 24, 2010 11:52:29

Page 1

## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 24, 2010 11:54:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 6.021

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	45.947 ug/L	19.535	2067	0.011
[>	Sc	45	ug/L		196419	196418.884
[	Ni	60	44.646 ug/L	10.929	12365	0.063
[>	Ge	74	ug/L		91625	91624.855
	As	75	46.927 ug/L	3.038	12996	0.141
	Se	77	ug/L		1989	0.013
	Se	82	47.212 ug/L	0.747	1256	0.013
[	Kr	83	ug/L		18	0.000
[>	Lu	175	ug/L		137772	137771.615
	Tl	205	49.053 ug/L	2.454	306418	2.224
[	U	238	52.466 ug/L	1.935	453659	3.293

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9	91.894			
[>	Sc	45		115.8		
[	Ni	60	89.291			
[>	Ge	74		101.7		
	As	75	93.853			
	Se	77				
	Se	82	94.425			
[	Kr	83				
[>	Lu	175		96.9		
	Tl	205	98.106			
[	U	238	104.931			

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Ni	60CCV is out of limits ( +/- 10%)

Sample ID: QC Std 6

Report Date/Time: Wednesday, February 24, 2010 11:55:13

Page 1

## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 24, 2010 11:57:14

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 7.022

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	-0.006	ug/L	644.930	2	-0.000
> Sc	45		ug/L		199174	199174.131
[ Ni	60	-0.034	ug/L	33.989	9	-0.000
> Ge	74		ug/L		93765	93765.402
As	75	0.199	ug/L	224.600	148	0.001
Se	77		ug/L		908	0.001
Se	82	-0.037	ug/L	537.748	21	-0.000
[ Kr	83		ug/L		21	0.000
> Lu	175		ug/L		139832	139831.767
Tl	205	0.102	ug/L	6.165	723	0.005
[ U	238	0.006	ug/L	38.892	127	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
> Sc	45		117.4			
[ Ni	60					
> Ge	74		104.1			
As	75					
Se	77					
Se	82					
[ Kr	83					
> Lu	175		98.3			
Tl	205					
[ U	238					

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 7

Report Date/Time: Wednesday, February 24, 2010 11:57:58

Page 1

## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#3 - Summary Report

Sample ID: 245688005

Sample Date/Time: Wednesday, February 24, 2010 11:59:59

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688005.023

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	1.586	ug/L	8.020	81	0.000
> Sc	45		ug/L		214745	214745.380
[ Ni	60	23.139	ug/L	3.086	7044	0.033
[> Ge	74		ug/L		85451	85451.006
As	75	3.479	ug/L	4.888	977	0.010
Se	77		ug/L		799	0.000
Se	82	0.357	ug/L	145.011	29	0.000
[ Kr	83		ug/L		56	0.000
[> Lu	175		ug/L		149995	149995.349
Tl	205	0.218	ug/L	4.302	1562	0.010
[ U	238	3.069	ug/L	5.136	28956	0.193

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
> Sc	45		126.6			
[ Ni	60					
[> Ge	74		94.9			
As	75					
Se	77					
Se	82					
[ Kr	83					
[> Lu	175		105.5			
Tl	205					
[ U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for sanSc		45

Sample ID: 245688005

Report Date/Time: Wednesday, February 24, 2010 12:00:42

Page 1

## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: 245688006

Sample Date/Time: Wednesday, February 24, 2010 12:02:42

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688006.024

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	2.171	ug/L	16.963	95	0.001
> Sc	45		ug/L		185980	185980.022
[ Ni	60	19.984	ug/L	8.065	5251	0.028
> Ge	74		ug/L		83969	83968.578
As	75	6.935	ug/L	6.254	1830	0.021
Se	77		ug/L		737	-0.000
Se	82	-0.039	ug/L	1608.567	19	-0.000
[ Kr	83		ug/L		35	0.000
> Lu	175		ug/L		135625	135625.180
Tl	205	0.576	ug/L	1.722	3611	0.026
[ U	238	60.166	ug/L	1.243	512136	3.776

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
> Sc	45		109.6			
[ Ni	60					
> Ge	74		93.2			
As	75					
Se	77					
Se	82					
[ Kr	83					
> Lu	175		95.4			
Tl	205					
[ U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 245688006

Report Date/Time: Wednesday, February 24, 2010 12:03:26

Page 1

## QC Action

QC Action Line: No QC out of limits detected

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Sample ID: 245688006

Report Date/Time: Wednesday, February 24, 2010 12:03:26

Page 2

## ICPMS#3 - Summary Report

Sample ID: 245688007

Sample Date/Time: Wednesday, February 24, 2010 12:05:27

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688007.025

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	3.492 ug/L	6.707	165	0.001
[>	Sc	45	ug/L		201822	201822.333
[	Ni	60	42.856 ug/L	3.452	12239	0.061
[>	Ge	74	ug/L		83576	83576.276
	As	75	13.302 ug/L	5.724	3421	0.040
	Se	77	ug/L		824	0.001
	Se	82	-0.490 ug/L	141.627	8	-0.000
[	Kr	83	ug/L		75	0.001
[>	Lu	175	ug/L		137390	137390.240
	Tl	205	1.269 ug/L	2.148	7977	0.058
[	U	238	67.018 ug/L	1.240	577963	4.206

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
[>	Sc	45		118.9		
[	Ni	60				
[>	Ge	74		92.8		
	As	75				
	Se	77				
	Se	82				
[	Kr	83				
[>	Lu	175		96.6		
	Tl	205				
[	U	238				

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: 245688007

Report Date/Time: Wednesday, February 24, 2010 12:06:11

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## QC Action

QC Action Line: No QC out of limits detected

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Sample ID: 245688007

Report Date/Time: Wednesday, February 24, 2010 12:06:11

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## ICPMS#3 - Summary Report

Sample ID: 245688008

Sample Date/Time: Wednesday, February 24, 2010 12:08:12

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035[2]prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688008.026

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	1.415	ug/L	13.637	66	0.000
[> Sc 45		ug/L		193889	193888.703
[ Ni 60	18.516	ug/L	7.125	5080	0.026
[> Ge 74		ug/L		85229	85229.003
[ As 75	2.574	ug/L	6.537	743	0.008
[ Se 77		ug/L		718	-0.000
[ Se 82	0.037	ug/L	667.800	21	0.000
[ Kr 83		ug/L		46	0.000
[> Lu 175		ug/L		149486	149485.885
[ Tl 205	0.165	ug/L	2.104	1198	0.007
[ U 238	10.179	ug/L	1.581	95563	0.639

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
[> Sc 45		114.3			
[ Ni 60					
[> Ge 74		94.6			
[ As 75					
[ Se 77					
[ Se 82					
[ Kr 83					
[> Lu 175		105.1			
[ Tl 205					
[ U 238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 245688008

Report Date/Time: Wednesday, February 24, 2010 12:08:56

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## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#3 - Summary Report

Sample ID: 245688009

Sample Date/Time: Wednesday, February 24, 2010 12:10:57

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688009.027

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be 9	8.862	ug/L	5.476	411	0.002
>	Sc 45		ug/L		199900	199900.094
	Ni 60	31.452	ug/L	4.246	8893	0.044
>	Ge 74		ug/L		84868	84867.602
	As 75	12.168	ug/L	5.860	3182	0.037
	Se 77		ug/L		738	-0.000
	Se 82	-1.011	ug/L	10.404	-4	-0.000
	Kr 83		ug/L		58	0.000
>	Lu 175		ug/L		136671	136670.710
	Tl 205	0.684	ug/L	2.779	4310	0.031
	U 238	403.768	ug/L	0.641	3463187	25.340

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be 9					
> Sc 45		117.8			
Ni 60					
> Ge 74		94.2			
As 75					
Se 77					
Se 82					
Kr 83					
> Lu 175		96.1			
Tl 205					
U 238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 245688009

Report Date/Time: Wednesday, February 24, 2010 12:11:39

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## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 245688010

Sample Date/Time: Wednesday, February 24, 2010 12:13:40

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688010.028

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	3.059	ug/L	13.568	133	0.001
> Sc	45		ug/L		186280	186279.537
[ Ni	60	33.304	ug/L	7.639	8743	0.047
> Ge	74		ug/L		83569	83568.553
As	75	10.406	ug/L	5.566	2693	0.031
Se	77		ug/L		764	0.000
Se	82	-1.013	ug/L	47.841	-4	-0.000
[ Kr	83		ug/L		59	0.001
> Lu	175		ug/L		136730	136729.683
Tl	205	0.672	ug/L	3.317	4235	0.030
[ U	238	5.605	ug/L	2.155	48179	0.352

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
> Sc	45		109.8			
[ Ni	60					
> Ge	74		92.8			
As	75					
Se	77					
Se	82					
[ Kr	83					
> Lu	175		96.2			
Tl	205					
[ U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 245688010

Report Date/Time: Wednesday, February 24, 2010 12:14:23

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## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 245688011

Sample Date/Time: Wednesday, February 24, 2010 12:16:24

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688011.029

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	3.037	ug/L	7.186	148	0.001
Sc	45		ug/L		208212	208211.839
Ni	60	31.142	ug/L	8.964	9161	0.044
Ge	74		ug/L		84886	84885.652
As	75	7.208	ug/L	3.164	1921	0.022
Se	77		ug/L		788	0.000
Se	82	-0.319	ug/L	157.407	13	-0.000
Kr	83		ug/L		48	0.000
Lu	175		ug/L		142583	142582.904
Tl	205	0.455	ug/L	2.413	3017	0.021
U	238	4.420	ug/L	1.696	39623	0.277

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		122.7			
Ni	60					
Ge	74		94.2			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		100.3			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for sanSc		45

Sample ID: 245688011

Report Date/Time: Wednesday, February 24, 2010 12:17:07

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## QC Action

QC Action Line: Continue

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Sample ID: 245688011

Report Date/Time: Wednesday, February 24, 2010 12:17:07

Page 2

## ICPMS#3 - Summary Report

Sample ID: 245688012

Sample Date/Time: Wednesday, February 24, 2010 12:19:08

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688012.030

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	3.177 ug/L	12.245	155	0.001
>	Sc	45	ug/L		208678	208678.290
[	Ni	60	29.391 ug/L	1.575	8689	0.042
>	Ge	74	ug/L		83568	83568.267
	As	75	11.181 ug/L	1.401	2887	0.034
	Se	77	ug/L		757	0.000
	Se	82	-0.534 ug/L	176.461	7	-0.000
[	Kr	83	ug/L		55	0.000
>	Lu	175	ug/L		137428	137428.004
	Tl	205	0.796 ug/L	2.021	5031	0.036
[	U	238	105.746 ug/L	1.444	912022	6.636

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
>	Sc	45		123.0		
[	Ni	60				
>	Ge	74		92.8		
	As	75				
	Se	77				
	Se	82				
[	Kr	83				
>	Lu	175		96.6		
	Tl	205				
[	U	238				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for sanSc		45

Sample ID: 245688012

Report Date/Time: Wednesday, February 24, 2010 12:19:51

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## QC Action

QC Action Line: Continue



## ICPMS#3 - Summary Report

Sample ID: 245688013

Sample Date/Time: Wednesday, February 24, 2010 12:21:53

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688013.031

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	1.366	ug/L	15.508	73	0.000
[>	Sc 45		ug/L		220859	220858.539
[	Ni 60	17.213	ug/L	2.469	5395	0.024
[>	Ge 74		ug/L		86185	86185.401
	As 75	2.441	ug/L	9.462	717	0.007
	Se 77		ug/L		707	-0.001
	Se 82	0.108	ug/L	352.314	23	0.000
[	Kr 83		ug/L		41	0.000
[>	Lu 175		ug/L		151614	151613.871
	Tl 205	0.128	ug/L	4.365	963	0.006
[	U 238	186.857	ug/L	1.043	1778156	11.727

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9					
[>	Sc 45		130.2			
[	Ni 60					
[>	Ge 74		95.7			
	As 75					
	Se 77					
	Se 82					
[	Kr 83					
[>	Lu 175		106.6			
	Tl 205					
[	U 238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for samSc		45

Sample ID: 245688013

Report Date/Time: Wednesday, February 24, 2010 12:22:37

Page 1

## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: 245688014

Sample Date/Time: Wednesday, February 24, 2010 12:24:37

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688014.032

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.929	ug/L	7.696	95	0.000
Sc	45		ug/L		207511	207510.571
Ni	60	16.123	ug/L	3.790	4746	0.023
Ge	74		ug/L		82223	82223.102
As	75	6.146	ug/L	2.269	1598	0.018
Se	77		ug/L		676	-0.001
Se	82	-0.743	ug/L	125.226	2	-0.000
Kr	83		ug/L		40	0.000
Lu	175		ug/L		136281	136280.714
Tl	205	0.472	ug/L	3.333	2987	0.021
U	238	25.606	ug/L	2.550	219027	1.607

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		122.3			
Ni	60					
Ge	74		91.3			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		95.8			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sanSc		45	

Sample ID: 245688014

Report Date/Time: Wednesday, February 24, 2010 12:25:21

Page 1

## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 24, 2010 12:27:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 6.033

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	43.730	ug/L	8.133	2094	0.010
Sc	45		ug/L		207300	207299.758
Ni	60	41.406	ug/L	6.447	12107	0.059
Ge	74		ug/L		89509	89508.778
As	75	47.528	ug/L	2.569	12859	0.143
Se	77		ug/L		1963	0.013
Se	82	48.128	ug/L	4.113	1250	0.014
Kr	83		ug/L		13	-0.000
Lu	175		ug/L		137186	137186.103
Tl	205	48.162	ug/L	2.807	299532	2.184
U	238	52.159	ug/L	1.451	449046	3.273

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	87.460				
Sc	45		122.2			
Ni	60	82.813				
Ge	74		99.4			
As	75	95.057				
Se	77					
Se	82	96.255				
Kr	83					
Lu	175		96.5			
Tl	205	96.325				
U	238	104.318				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Be	9CCV is out of limits ( +/- 10%)
Sc 45 Int Std for QC Sc		45
QC Std 6	Ni	60CCV is out of limits ( +/- 10%)

Sample ID: QC Std 6

Report Date/Time: Wednesday, February 24, 2010 12:28:05

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## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 24, 2010 12:30:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 7.034

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be 9	0.002	ug/L	2074.238	3	0.000
> Sc 45		ug/L		215589	215589.214
[ Ni 60	-0.028	ug/L	42.508	12	-0.000
> Ge 74		ug/L		91421	91421.170
[ As 75	-0.113	ug/L	657.255	59	-0.000
Se 77		ug/L		850	0.000
Se 82	0.191	ug/L	365.605	27	0.000
[ Kr 83		ug/L		17	0.000
> Lu 175		ug/L		135857	135857.311
Tl 205	0.075	ug/L	6.046	535	0.003
[ U 238	0.005	ug/L	28.350	111	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
> Sc 45		127.1			
[ Ni 60					
> Ge 74		101.5			
As 75					
Se 77					
Se 82					
[ Kr 83					
> Lu 175		95.5			
Tl 205					
[ U 238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for QC Sc		45

Sample ID: QC Std 7

Report Date/Time: Wednesday, February 24, 2010 12:30:50

Page 1

## QC Action

QC Action Line: Continue



## ICPMS#3 - Summary Report

Sample ID: 245688009

Sample Date/Time: Wednesday, February 24, 2010 12:38:56

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|20|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688009.036

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	0.972	ug/L	16.246	51	0.000
> Sc 45		ug/L		212671	212671.169
[ Ni 60	3.247	ug/L	4.338	996	0.005
> Ge 74		ug/L		87738	87738.489
[ As 75	1.414	ug/L	41.433	459	0.004
[ Se 77		ug/L		953	0.002
[ Se 82	-0.619	ug/L	35.695	5	-0.000
[ Kr 83		ug/L		21	0.000
> Lu 175		ug/L		135185	135185.315
[ Tl 205	0.069	ug/L	7.818	496	0.003
[ U 238	59.665	ug/L	1.815	506267	3.744

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
> Sc 45		125.3			
[ Ni 60					
> Ge 74		97.4			
[ As 75					
[ Se 77					
[ Se 82					
[ Kr 83					
> Lu 175		95.1			
[ Tl 205					
[ U 238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for sanSc		45

Sample ID: 245688009

Report Date/Time: Wednesday, February 24, 2010 12:39:39

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## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: 245688012

Sample Date/Time: Wednesday, February 24, 2010 12:41:40

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|10|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688012.037

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.708	ug/L	21.170	38	0.000
Sc	45		ug/L		211891	211890.514
Ni	60	6.328	ug/L	4.363	1915	0.009
Ge	74		ug/L		86901	86900.715
As	75	2.348	ug/L	19.618	699	0.007
Se	77		ug/L		927	0.002
Se	82	-0.469	ug/L	50.039	9	-0.000
Kr	83		ug/L		21	0.000
Lu	175		ug/L		135315	135314.573
Tl	205	0.165	ug/L	5.353	1086	0.007
U	238	21.191	ug/L	1.361	180008	1.330

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		124.9			
Ni	60					
Ge	74		96.5			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		95.2			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for sanSc		45

Sample ID: 245688012

Report Date/Time: Wednesday, February 24, 2010 12:42:23

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## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: 245688013

Sample Date/Time: Wednesday, February 24, 2010 12:44:24

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|10|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\245688013.038

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.282 ug/L	28.502	17	0.000
>	Sc	45	ug/L		211538	211537.713
[	Ni	60	3.462 ug/L	6.589	1056	0.005
>	Ge	74	ug/L		86573	86573.072
	As	75	0.719 ug/L	92.922	272	0.002
	Se	77	ug/L		851	0.001
	Se	82	-0.966 ug/L	80.218	-3	-0.000
[	Kr	83	ug/L		30	0.000
>	Lu	175	ug/L		136770	136770.308
	Tl	205	0.028 ug/L	12.871	248	0.001
[	U	238	39.839 ug/L	0.903	342037	2.500

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9			
>	Sc	45	124.7		
[	Ni	60			
>	Ge	74	96.1		
	As	75			
	Se	77			
	Se	82			
[	Kr	83			
>	Lu	175	96.2		
	Tl	205			
[	U	238			

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message  
Sc 45 Int Std for sanSc 45

Sample ID: 245688013

Report Date/Time: Wednesday, February 24, 2010 12:45:07

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## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: 1202030857

Sample Date/Time: Wednesday, February 24, 2010 12:47:08

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 948035[40]prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\1202030857.039

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be 9	18.446	ug/L	15.786	873	0.004
> Sc 45		ug/L		205858	205858.274
[ Ni 60	30.692	ug/L	6.947	8929	0.043
> Ge 74		ug/L		86739	86738.733
[ As 75	27.096	ug/L	7.539	7143	0.081
[ Se 77		ug/L		2591	0.021
[ Se 82	71.574	ug/L	2.534	1791	0.020
[ Kr 83		ug/L		20	0.000
> Lu 175		ug/L		134951	134951.483
[ Tl 205	33.549	ug/L	2.615	205327	1.521
[ U 238	0.580	ug/L	2.205	4987	0.036

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
> Sc 45		121.3			
[ Ni 60					
> Ge 74		96.3			
[ As 75					
[ Se 77					
[ Se 82					
[ Kr 83					
> Lu 175		94.9			
[ Tl 205					
[ U 238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for sanSc		45

Sample ID: 1202030857

Report Date/Time: Wednesday, February 24, 2010 12:47:52

Page 1

## QC Action

QC Action Line: Continue



## ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 24, 2010 12:49:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 6.040

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	43.130	ug/L	3.690	2029	0.010
Sc	45		ug/L		203963	203962.899
Ni	60	41.843	ug/L	8.312	12011	0.059
Ge	74		ug/L		89601	89601.356
As	75	47.975	ug/L	1.378	12993	0.144
Se	77		ug/L		2087	0.014
Se	82	48.873	ug/L	0.776	1270	0.014
Kr	83		ug/L		19	0.000
Lu	175		ug/L		135881	135880.532
Tl	205	48.242	ug/L	1.782	297269	2.187
U	238	52.693	ug/L	1.703	449433	3.307

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	86.261				
Sc	45		120.2			
Ni	60	83.687				
Ge	74		99.5			
As	75	95.951				
Se	77					
Se	82	97.747				
Kr	83					
Lu	175		95.6			
Tl	205	96.483				
U	238	105.386				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Be	9CCV is out of limits ( +/- 10%)
Sc 45 Int Std for QC Sc		45
QC Std 6	Ni	60CCV is out of limits ( +/- 10%)

Sample ID: QC Std 6

Report Date/Time: Wednesday, February 24, 2010 12:50:35

Page 1

## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 24, 2010 12:52:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 7.041

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.019	ug/L	204.975	4	0.000
> Sc	45		ug/L		218849	218849.367
Ni	60	-0.041	ug/L	16.208	8	-0.000
> Ge	74		ug/L		92495	92495.087
As	75	0.183	ug/L	418.434	142	0.001
Se	77		ug/L		915	0.001
Se	82	0.167	ug/L	38.583	26	0.000
Kr	83		ug/L		21	0.000
> Lu	175		ug/L		137728	137728.181
Tl	205	0.115	ug/L	4.421	791	0.005
U	238	0.005	ug/L	18.448	118	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	0.9999
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
> Sc	45		129.0			
Ni	60					
> Ge	74		102.7			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		96.9			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for QC Sc		45

Sample ID: QC Std 7

Report Date/Time: Wednesday, February 24, 2010 12:53:20

Page 1

## QC Action

QC Action Line: Continue

## Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Wednesday, February 24, 2010 09:43:38

Sample Description:

Method File: c:\elandata\Method\daily2.mth

Dataset File: c:\elandata\Dataset\100125\Sample.333

Tuning File: c:\elandata\Tuning\default2.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

### Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD
Be	9.0		969.4		969.433		38.510		4.0
Mg	24.0		17145.3		17145.285		285.504		1.7
Co	58.9		46044.1		46044.087		387.015		0.8
Rh	102.9		82959.6		82959.587		367.776		0.4
In	114.9		109180.8		109180.840		667.307		0.6
Pb	208.0		39651.0		39650.952		237.985		0.6
[> Ba	137.9		88612.4		88612.367		201.057		0.2
[ Ba++	69.0		1068.3		0.012		0.000		1.6
[> Ce	139.9		104716.8		104716.811		763.026		0.7
[ CeO	155.9		2804.4		0.027		0.001		2.2
Bkgd	220.0		1.2		1.200		0.570		47.5

### Current Optimization File Data

Current Value	Description
0.91	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

### Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	5.5	1019.4
Co	59	21	6.3	32736.8
In	115	21	7.5	73094.5

## ICPMS #4 TUNING REPORT

File Name: default2.tun  
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	605	2060	0.637
Be	9.0	9.0	2048	2045	0.655
Mg	24.0	24.0	5678	2065	0.692
Mg	25.0	25.0	5917	2080	0.665
Mg	26.0	26.0	6163	2085	0.603
Co	58.9	59.0	14175	2140	0.629
Rh	102.9	102.9	24867	2230	0.647
In	114.9	114.9	27791	2255	0.659
Ce	139.9	139.9	33853	2310	0.630
Pb	206.0	206.0	49931	2500	0.618
Pb	207.0	207.0	50125	2375	0.657
Pb	208.0	208.0	50436	2570	0.653
U	238.1	238.0	57687	2510	0.706

## ICPMS#4 - Summary Report

Sample ID: Blank

Sample Date/Time: Wednesday, February 24, 2010 12:05:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\Blank.039

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9		ug/L			1
Sc	45		ug/L		236314	
Ni	60		ug/L		29	
Cu	63		ug/L		104	
Cu	65		ug/L		64	

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Simple Linear	
Sc	45Simple Linear	
Ni	60Simple Linear	
Cu	63Simple Linear	
Cu	65Simple Linear	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45					
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Wednesday, February 24, 2010 12:06:18

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## ICPMS#4 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Wednesday, February 24, 2010 12:07:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\Standard 1.040

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.000	ug/L	4.927	946	0.004
Sc	45		ug/L		234834	234834.489
Ni	60	10.000	ug/L	0.605	6648	0.028
Cu	63		ug/L		13988	0.059
Cu	65	10.000	ug/L	4.317	6786	0.029

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45					
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Wednesday, February 24, 2010 12:08:06

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## ICPMS#4 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Wednesday, February 24, 2010 12:09:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\Standard 2.041

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	100.032	ug/L	3.773	9904	0.042
>	Sc 45		ug/L		237947	237946.881
	Ni 60	99.950	ug/L	1.551	63882	0.268
	Cu 63		ug/L		137836	0.579
[	Cu 65	99.977	ug/L	3.394	66580	0.280

### Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9					
>	Sc 45					
	Ni 60					
	Cu 63					
[	Cu 65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Wednesday, February 24, 2010 12:11:24

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 1.042

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	50.665	ug/L	2.808	4988	0.021
>	Sc 45		ug/L		236502	236501.650
	Ni 60	52.451	ug/L	1.689	33343	0.141
	Cu 63		ug/L		70101	0.296
[	Cu 65	50.560	ug/L	2.112	33505	0.141

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9	101.331				
>	Sc 45		100.1			
	Ni 60	104.901				
	Cu 63					
[	Cu 65	101.121				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 1

Report Date/Time: Wednesday, February 24, 2010 12:11:44

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## ICPMS#4 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Wednesday, February 24, 2010 12:13:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 2.043

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.043	ug/L	81.075	5	0.000
Sc	45		ug/L		242559	242559.117
Ni	60	0.015	ug/L	35.182	40	0.000
Cu	63		ug/L		137	0.000
Cu	65	0.028	ug/L	64.768	85	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recovery	Dilution	% Diff	Dup. Rel.	% Diff
Be	9										
Sc	45				102.6						
Ni	60										
Cu	63										
Cu	65										

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Wednesday, February 24, 2010 12:13:37

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## ICPMS#4 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Wednesday, February 24, 2010 12:15:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 3.044

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.506	ug/L	7.891	52	0.000
>	Sc 45		ug/L		242154	242153.668
	Ni 60	2.241	ug/L	1.210	1487	0.006
	Cu 63		ug/L		1751	0.007
L	Cu 65	1.147	ug/L	3.321	843	0.003

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9	101.231				
>	Sc 45		102.5			
	Ni 60	112.066				
	Cu 63					
L	Cu 65	114.700				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 3

Report Date/Time: Wednesday, February 24, 2010 12:15:27

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## ICPMS#4 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Wednesday, February 24, 2010 12:16:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 4.045

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.109	ug/L	45.689	10	0.000
Sc	45		ug/L		213584	213583.977
Ni	60	5.554	ug/L	1.467	3212	0.015
Cu	63		ug/L		3849	0.018
Cu	65	3.445	ug/L	2.041	2116	0.010

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		90.4			
Ni	60	167.781				
Cu	63					
Cu	65	103.139				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Wednesday, February 24, 2010 12:17:17

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## ICPMS#4 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Wednesday, February 24, 2010 12:18:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 5.046

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	19.030	ug/L	4.345	1709	0.008
>	Sc 45		ug/L		215520	215520.469
	Ni 60	23.924	ug/L	1.898	13869	0.064
	Cu 63		ug/L		26189	0.121
L	Cu 65	21.260	ug/L	3.305	12868	0.059

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9	95.152				
>	Sc 45		91.2			
	Ni 60	102.634				
	Cu 63					
L	Cu 65	91.088				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Wednesday, February 24, 2010 12:19:08

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 24, 2010 12:20:39

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 6.047

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.980	ug/L	3.369	4973	0.022
Sc	45		ug/L		229907	229907.154
Ni	60	51.903	ug/L	2.801	32068	0.139
Cu	63		ug/L		68221	0.296
Cu	65	51.298	ug/L	3.646	33041	0.143

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	103.960				
Sc	45		97.3			
Ni	60	103.807				
Cu	63					
Cu	65	102.596				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 24, 2010 12:22:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 7.048

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.017	ug/L	32.081	2	0.000
>	Sc 45		ug/L		234949	234949.484
	Ni 60	-0.004	ug/L	289.449	27	-0.000
	Cu 63		ug/L		134	0.000
	Cu 65	0.041	ug/L	22.224	91	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9					
>	Sc 45		99.4			
	Ni 60					
	Cu 63					
	Cu 65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Wednesday, February 24, 2010 12:22:54

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## ICPMS#4 - Summary Report

Sample ID: 1202030852

Sample Date/Time: Wednesday, February 24, 2010 12:24:23

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 948035|2|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\1202030852.049

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.028	ug/L	77.993	3	0.000
>	Sc 45		ug/L		231749	231749.376
	Ni 60	0.159	ug/L	11.614	128	0.000
	Cu 63		ug/L		283	0.001
[	Cu 65	0.117	ug/L	19.491	139	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9				
>	Sc 45	98.1			
	Ni 60				
	Cu 63				
[	Cu 65				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030852

Report Date/Time: Wednesday, February 24, 2010 12:24:44

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## ICPMS#4 - Summary Report

Sample ID: 1202030857

Sample Date/Time: Wednesday, February 24, 2010 12:26:13

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 948035[40]skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\1202030857.050

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	23.038	ug/L	4.135	2271	0.010
>	Sc 45		ug/L		236691	236691.303
	Ni 60	40.535	ug/L	1.005	25792	0.109
	Cu 63		ug/L		69783	0.294
[	Cu 65	50.822	ug/L	3.243	33712	0.142

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
> Sc 45		100.2			
Ni 60					
Cu 63					
[ Cu 65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030857

Report Date/Time: Wednesday, February 24, 2010 12:26:34

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 24, 2010 12:28:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 6.051

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.951	ug/L	3.138	5094	0.022
Sc	45		ug/L		235636	235636.018
Ni	60	52.265	ug/L	2.382	33095	0.140
Cu	63		ug/L		69606	0.295
Cu	65	51.290	ug/L	4.180	33859	0.143

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	103.902				
Sc	45		99.7			
Ni	60	104.529				
Cu	63					
Cu	65	102.581				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Wednesday, February 24, 2010 12:28:26

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 24, 2010 12:29:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 7.052

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.041	ug/L	38.218	5	0.000
Sc	45		ug/L		234155	234154.720
Ni	60	0.014	ug/L	71.026	38	0.000
Cu	63		ug/L		148	0.000
Cu	65	0.003	ug/L	292.893	66	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		99.1			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Wednesday, February 24, 2010 12:30:19

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## ICPMS#4 - Summary Report

Sample ID: 245688001

Sample Date/Time: Wednesday, February 24, 2010 12:31:50

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035[2]skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688001.053

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.954	ug/L	10.722	203	0.001
Sc	45		ug/L		248076	248075.696
Ni	60	17.139	ug/L	2.760	11445	0.046
Cu	63		ug/L		45798	0.184
Cu	65	32.205	ug/L	3.203	22410	0.090

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		105.0			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245688001

Report Date/Time: Wednesday, February 24, 2010 12:32:11

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## ICPMS#4 - Summary Report

Sample ID: 1202030853

Sample Date/Time: Wednesday, February 24, 2010 12:33:41

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 948035|2|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\1202030853.054

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.090	ug/L	2.633	220	0.001
Sc	45		ug/L		252504	252504.032
Ni	60	17.515	ug/L	2.983	11906	0.047
Cu	63		ug/L		44925	0.178
Cu	65	30.963	ug/L	2.883	21935	0.087

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		106.9			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030853

Report Date/Time: Wednesday, February 24, 2010 12:34:03

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## ICPMS#4 - Summary Report

Sample ID: 1202030855

Sample Date/Time: Wednesday, February 24, 2010 12:35:33

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 948035|2|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\1202030855.055

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	22.939	ug/L	2.612	2438	0.010
Sc	45		ug/L		255355	255354.676
Ni	60	41.792	ug/L	0.626	28688	0.112
Cu	63		ug/L		81032	0.317
Cu	65	54.728	ug/L	2.783	39155	0.153

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		108.1			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030855

Report Date/Time: Wednesday, February 24, 2010 12:35:55

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## ICPMS#4 - Summary Report

Sample ID: 1202030856

Sample Date/Time: Wednesday, February 24, 2010 12:37:26

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 948035[2]skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\1202030856.056

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	22.787	ug/L	8.311	2466	0.009
Sc	45		ug/L		260446	260446.225
Ni	60	39.667	ug/L	4.716	27721	0.107
Cu	63		ug/L		80103	0.308
Cu	65	53.668	ug/L	6.276	39077	0.150

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		110.2			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030856

Report Date/Time: Wednesday, February 24, 2010 12:37:48

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## ICPMS#4 - Summary Report

Sample ID: 1202030854

Sample Date/Time: Wednesday, February 24, 2010 12:39:19

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 948035|10|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\1202030854.057

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.446	ug/L	18.171	45	0.000
Sc	45		ug/L		237451	237451.486
Ni	60	3.752	ug/L	5.739	2420	0.010
Cu	63		ug/L		9787	0.041
Cu	65	7.026	ug/L	4.224	4729	0.020

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		100.5			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030854

Report Date/Time: Wednesday, February 24, 2010 12:39:42

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 24, 2010 12:41:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 6.058

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	52.718	ug/L	5.492	5188	0.022
>	Sc 45		ug/L		236489	236489.386
	Ni 60	51.759	ug/L	2.248	32894	0.139
	Cu 63		ug/L		69158	0.292
L	Cu 65	50.522	ug/L	2.486	33479	0.141

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9	105.436				
>	Sc 45		100.1			
	Ni 60	103.519				
	Cu 63					
L	Cu 65	101.043				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Wednesday, February 24, 2010 12:41:33

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 24, 2010 12:43:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 7.059

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.013	ug/L	130.350	2	0.000
>	Sc 45		ug/L		238967	238967.234
	Ni 60	0.005	ug/L	153.342	33	0.000
	Cu 63		ug/L		147	0.000
	Cu 65	0.033	ug/L	79.023	87	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9					
>	Sc 45		101.1			
	Ni 60					
	Cu 63					
	Cu 65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 245688002

Sample Date/Time: Wednesday, February 24, 2010 12:44:57

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688002.060

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.154	ug/L	4.672	232	0.001
Sc	45		ug/L		257774	257773.607
Ni	60	25.988	ug/L	1.916	18017	0.070
Cu	63		ug/L		25378	0.098
Cu	65	17.046	ug/L	3.321	12352	0.048

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		109.1			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245688002

Report Date/Time: Wednesday, February 24, 2010 12:45:18

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## ICPMS#4 - Summary Report

Sample ID: 245688003

Sample Date/Time: Wednesday, February 24, 2010 12:46:48

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035[2]skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688003.061

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	3.813	ug/L	5.007	420	0.002
>	Sc 45		ug/L		264559	264558.799
	Ni 60	28.138	ug/L	2.055	20023	0.076
	Cu 63		ug/L		26508	0.100
[	Cu 65	17.617	ug/L	2.117	13107	0.049

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
> Sc 45		112.0			
Ni 60					
Cu 63					
[ Cu 65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245688003

Report Date/Time: Wednesday, February 24, 2010 12:47:09

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## ICPMS#4 - Summary Report

Sample ID: 245688004

Sample Date/Time: Wednesday, February 24, 2010 12:48:39

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688004.062

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.669	ug/L	1.334	289	0.001
Sc	45		ug/L		259159	259158.566
Ni	60	25.038	ug/L	3.969	17462	0.067
Cu	63		ug/L		31194	0.120
Cu	65	20.655	ug/L	2.989	15035	0.058

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		109.7			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 245688005

Sample Date/Time: Wednesday, February 24, 2010 12:50:31

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688005.063

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.856	ug/L	7.841	200	0.001
Sc	45		ug/L		257057	257056.856
Ni	60	28.610	ug/L	6.680	19759	0.077
Cu	63		ug/L		17824	0.069
Cu	65	12.003	ug/L	5.071	8690	0.034

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		108.8			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245688005

Report Date/Time: Wednesday, February 24, 2010 12:50:53

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 24, 2010 12:52:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 6.064

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	51.843	ug/L	2.359	5014	0.022
>	Sc 45		ug/L		232461	232460.610
	Ni 60	52.133	ug/L	2.450	32571	0.140
	Cu 63		ug/L		68726	0.295
	Cu 65	51.155	ug/L	4.370	33297	0.143

### Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9	103.685				
>	Sc 45		98.4			
	Ni 60	104.266				
	Cu 63					
	Cu 65	102.310				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Wednesday, February 24, 2010 12:52:45

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 24, 2010 12:54:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 7.065

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.050	ug/L	62.891	6	0.000
Sc	45		ug/L		239201	239201.280
Ni	60	0.013	ug/L	62.449	38	0.000
Cu	63		ug/L		158	0.000
Cu	65	0.021	ug/L	53.698	79	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		101.2			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Wednesday, February 24, 2010 12:54:38

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## ICPMS#4 - Summary Report

Sample ID: 245688006

Sample Date/Time: Wednesday, February 24, 2010 12:56:09

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688006.066

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.266	ug/L	1.090	234	0.001
Sc	45		ug/L		247403	247403.153
Ni	60	21.739	ug/L	2.097	14473	0.058
Cu	63		ug/L		43877	0.177
Cu	65	31.038	ug/L	3.296	21544	0.087

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		104.7			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 245688007

Sample Date/Time: Wednesday, February 24, 2010 12:58:02

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688007.067

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	4.539	ug/L	1.319	523	0.002
Sc	45		ug/L		276304	276304.290
Ni	60	48.587	ug/L	1.530	36083	0.130
Cu	63		ug/L		133312	0.482
Cu	65	83.699	ug/L	3.118	64757	0.234

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		116.9			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245688007

Report Date/Time: Wednesday, February 24, 2010 12:58:25

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## ICPMS#4 - Summary Report

Sample ID: 245688008

Sample Date/Time: Wednesday, February 24, 2010 12:59:56

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688008.068

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.534	ug/L	14.193	163	0.001
Sc	45		ug/L		254541	254541.194
Ni	60	20.815	ug/L	1.952	14260	0.056
Cu	63		ug/L		28252	0.111
Cu	65	19.297	ug/L	1.855	13805	0.054

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		107.7			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 245688009

Sample Date/Time: Wednesday, February 24, 2010 13:01:49

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035[2]skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688009.069

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.435	ug/L	2.569	1171	0.004
Sc	45		ug/L		269501	269501.422
Ni	60	35.094	ug/L	1.326	25424	0.094
Cu	63		ug/L		738300	2.741
Cu	65	472.733	ug/L	4.235	356185	1.322

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		114.0			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 245688010

Sample Date/Time: Wednesday, February 24, 2010 13:03:40

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688010.070

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	3.335	ug/L	0.313	371	0.001
>	Sc 45		ug/L		267020	267019.612
	Ni 60	34.641	ug/L	1.374	24868	0.093
	Cu 63		ug/L		31619	0.118
[	Cu 65	20.744	ug/L	4.281	15552	0.058

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9					
>	Sc 45		113.0			
	Ni 60					
	Cu 63					
[	Cu 65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245688010

Report Date/Time: Wednesday, February 24, 2010 13:04:02

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 24, 2010 13:05:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 6.071

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.450	ug/L	3.149	5121	0.021
Sc	45		ug/L		239080	239080.170
Ni	60	52.445	ug/L	1.825	33696	0.141
Cu	63		ug/L		71467	0.299
Cu	65	51.232	ug/L	2.438	34323	0.143

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	102.900				
Sc	45		101.2			
Ni	60	104.889				
Cu	63					
Cu	65	102.463				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Wednesday, February 24, 2010 13:05:53

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 24, 2010 13:07:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 7.072

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.043	ug/L	24.559	5	0.000
Sc	45		ug/L		241452	241452.188
Ni	60	0.014	ug/L	56.053	39	0.000
Cu	63		ug/L		162	0.000
Cu	65	0.026	ug/L	24.774	83	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recovery	Dilution	% Diff	Dup. Rel.	% Diff
Be	9										
Sc	45				102.2						
Ni	60										
Cu	63										
Cu	65										

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Wednesday, February 24, 2010 13:07:47

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## ICPMS#4 - Summary Report

Sample ID: 245688011

Sample Date/Time: Wednesday, February 24, 2010 13:09:18

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035|2|skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688011.073

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	3.512	ug/L	5.893	380	0.001
>	Sc 45		ug/L		259287	259287.287
	Ni 60	36.356	ug/L	1.757	25341	0.098
	Cu 63		ug/L		21354	0.082
	Cu 65	14.440	ug/L	3.191	10543	0.040

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9				
>	Sc 45	109.7			
	Ni 60				
	Cu 63				
	Cu 65				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245688011

Report Date/Time: Wednesday, February 24, 2010 13:09:39

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## ICPMS#4 - Summary Report

Sample ID: 245688012

Sample Date/Time: Wednesday, February 24, 2010 13:11:10

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035[2]skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688012.074

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	4.012	ug/L	1.904	430	0.002
>	Sc 45		ug/L		257233	257232.771
	Ni 60	35.530	ug/L	1.428	24573	0.095
	Cu 63		ug/L		159493	0.620
[	Cu 65	106.966	ug/L	1.911	77025	0.299

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9					
>	Sc 45		108.9			
	Ni 60					
	Cu 63					
[	Cu 65					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245688012

Report Date/Time: Wednesday, February 24, 2010 13:11:32

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## ICPMS#4 - Summary Report

Sample ID: 245688013

Sample Date/Time: Wednesday, February 24, 2010 13:13:04

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035[2]skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688013.075

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	1.622	ug/L	8.700	167	0.001
>	Sc 45		ug/L		246300	246300.390
	Ni 60	21.807	ug/L	2.424	14448	0.059
	Cu 63		ug/L		37510	0.152
L	Cu 65	26.154	ug/L	3.520	18082	0.073

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9					
>	Sc 45		104.2			
	Ni 60					
	Cu 63					
L	Cu 65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245688013

Report Date/Time: Wednesday, February 24, 2010 13:13:26

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## ICPMS#4 - Summary Report

Sample ID: 245688014

Sample Date/Time: Wednesday, February 24, 2010 13:14:57

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948035[2]skj

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\245688014.076

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	2.287	ug/L	5.227	227	0.001
>	Sc 45		ug/L		238176	238176.111
	Ni 60	19.777	ug/L	2.896	12678	0.053
	Cu 63		ug/L		42477	0.178
L	Cu 65	30.908	ug/L	1.766	20657	0.086

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9				
>	Sc 45	100.8			
	Ni 60				
	Cu 63				
L	Cu 65				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245688014

Report Date/Time: Wednesday, February 24, 2010 13:15:20

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, February 24, 2010 13:16:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 6.077

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.964	ug/L	3.128	5034	0.022
Sc	45		ug/L		232637	232636.997
Ni	60	52.322	ug/L	2.207	32706	0.141
Cu	63		ug/L		69074	0.297
Cu	65	51.265	ug/L	3.345	33423	0.143

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	103.927				
Sc	45		98.4			
Ni	60	104.643				
Cu	63					
Cu	65	102.530				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, February 24, 2010 13:18:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni cu.mth

Dataset File: C:\elandata\Dataset\100224\QC Std 7.078

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.027	ug/L	55.990	3	0.000
Sc	45		ug/L		237746	237746.068
Ni	60	0.007	ug/L	210.805	34	0.000
Cu	63		ug/L		136	0.000
Cu	65	0.004	ug/L	147.714	67	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		100.6			
Ni	60					
Cu	63					
Cu	65					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Wednesday, February 24, 2010 13:19:05

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%RSD: 0.9 0.9 0.9273

=====  
 Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/16/2010  
 Sample ID: 245688001|i|||

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Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
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 -----

=====  
 Element: Hg Seq. No.: 43 AS Loc.: 7 Date: 02/16/2010  
 Sample ID: CCV

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.564	5.564	0.0281	0.0305	10:13:29	No
2	5.567	5.567	0.0281	0.0305	10:14:03	No
Mean:	5.566	5.566	0.0281			
SD :	0.0016	0.0016	0.0000			

 -----

%RSD:

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 44 AS Loc.: 8 Date: 02/16/2010  
 Sample ID: CCB

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.092	0.092	0.0010	0.0034	10:15:32	No
2	0.097	0.097	0.0011	0.0035	10:16:06	No
Mean:	0.094	0.094	0.0010			
SD :	0.0035	0.0035	0.0000			
%RSD:	3.7	3.7	1.6345			

 -----

Method Name: SOIL

Method Description: 7471A, ILM04 ANALYST JXL1

Element: Hg

Date: 02/16/2010

Technique: FI-MHS

Calibration Type:

Hg, Calc. Intercept : Linear

Wavelength: 253.7 nm

Sample Info Name: 021610S1.SIF

Results Data Set Name: 021610S2

=====  
 Element: Hg Seq. No.: 45 AS Loc.: 1 Date: 02/16/2010  
 Sample ID: Calib Blank

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.0032	0.0032	10:18:51	No
2			0.0031	0.0031	10:19:26	No
Mean:			0.0031			
SD :			0.0000			
%RSD:			1.1573			

 -----

Auto-zero performed.

=====  
 Element: Hg Seq. No.: 46 AS Loc.: 2 Date: 02/16/2010  
 Sample ID: S0.2

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.0029	0.0060	10:20:48	No
2			0.0029	0.0060	10:21:23	No
Mean:			0.0029			

 -----

SD : 0.0000  
 %RSD: 0.5208  
 [Hg] Standard number 1 applied. [0.200]  
 Correlation Coefficient: 1.00000 Slope: 0.01438  
 Intercept : 0.00000

=====  
 Element: Hg Seq. No.: 47 AS Loc.: 3 Date: 02/16/2010  
 Sample ID: S0.5

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0060	0.0092	10:22:47	No
2			0.0061	0.0093	10:23:22	No
Mean:			0.0061			
SD :			0.0001			
%RSD:			1.0905			

[Hg] Standard number 2 applied. [0.500]  
 Correlation Coefficient: 0.99653 Slope: 0.01206  
 Intercept : 0.00017

=====  
 Element: Hg Seq. No.: 48 AS Loc.: 4 Date: 02/16/2010  
 Sample ID: S2.0

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0223	0.0254	10:24:47	No
2			0.0226	0.0257	10:25:22	No
Mean:			0.0224			
SD :			0.0002			
%RSD:			0.9330			

[Hg] Standard number 3 applied. [2.000]  
 Correlation Coefficient: 0.99956 Slope: 0.01105  
 Intercept : 0.00039

=====  
 Element: Hg Seq. No.: 49 AS Loc.: 5 Date: 02/16/2010  
 Sample ID: S5.0

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0545	0.0577	10:26:48	No
2			0.0555	0.0587	10:27:23	No
Mean:			0.0550			
SD :			0.0007			
%RSD:			1.2760			

[Hg] Standard number 4 applied. [5.000]  
 Correlation Coefficient: 0.99993 Slope: 0.01093  
 Intercept : 0.00045

=====  
 Element: Hg Seq. No.: 50 AS Loc.: 6 Date: 02/16/2010  
 Sample ID: S10

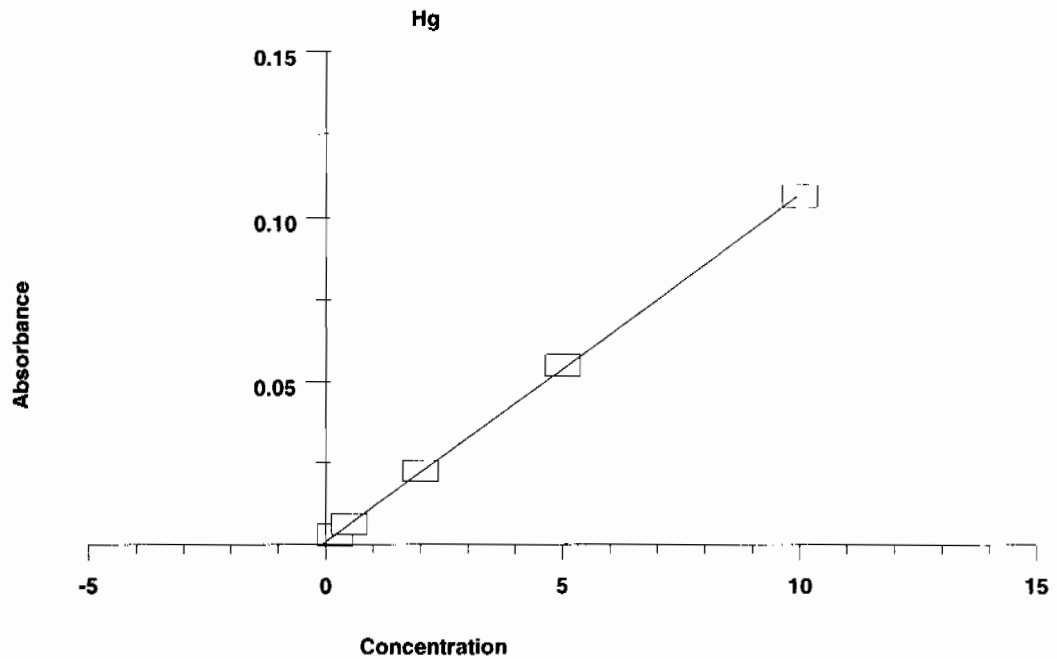
Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.1060	0.1091	10:28:49	No
2			0.1066	0.1097	10:29:24	No
Mean:			0.1063			
SD :			0.0004			
%RSD:			0.3772			

[Hg] Standard number 5 applied. [10.00]  
 Correlation Coefficient: 0.99985 Slope: 0.01061  
 Intercept : 0.00081



## Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration ( $\mu\text{g/L}$ )	Calculated Concentration ( $\mu\text{g/L}$ )	Standard Deviation	%RSD
Calib Blank	0.0031	---	---	---	---
S0.2	0.0029	0.200	0.195	0.0000	0.5
S0.5	0.0061	0.500	0.498	0.0001	1.1
S2.0	0.0224	2.000	2.036	0.0002	0.9
S5.0	0.0550	5.000	5.109	0.0007	1.3
S10	0.1063	10.000	9.938	0.0004	0.4
Correlation Coefficient: 0.99985    Slope: 0.01061    Intercept: 0.0008					



=====  
 Element: Hg    Seq. No.: 51    AS Loc.: 9    Date: 02/16/2010  
 Sample ID: ICV

=====

Repl #	SampleConc $\mu\text{g/L}$	StdConc $\mu\text{g/L}$	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.149	5.149	0.0554	0.0586	10:30:53	No
2	5.060	5.060	0.0545	0.0576	10:31:28	No
Mean:	5.104	5.104	0.0550			
SD :	0.0631	0.0631	0.0007			
%RSD:	1.2	1.2	1.2174			

QC value within specified limits.

=====  
 Element: Hg    Seq. No.: 52    AS Loc.: 10    Date: 02/16/2010  
 Sample ID: ICB

=====

Repl #	SampleConc $\mu\text{g/L}$	StdConc $\mu\text{g/L}$	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0009	0.0041	10:32:50	No
2	0.014	0.014	0.0010	0.0041	10:33:25	No
Mean:	0.013	0.013	0.0009			
SD :	0.0013	0.0013	0.0000			

%RSD: 10.1 10.1 1.4456  
QC value within specified limits.

=====  
Element: Hg Seq. No.: 53 AS Loc.: 11 Date: 02/16/2010  
Sample ID: CRDL

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.267	0.267	0.0036	0.0068	10:34:48	No
2	0.268	0.268	0.0036	0.0068	10:35:23	No
Mean:	0.267	0.267	0.0036			
SD :	0.0007	0.0007	0.0000			
%RSD:	0.3	0.3	0.2140			

QC value within specified limits.

=====  
Element: Hg Seq. No.: 54 AS Loc.: 7 Date: 02/16/2010  
Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	4.777	4.777	0.0515	0.0546	10:36:48	No
2	4.828	4.828	0.0520	0.0552	10:37:24	No
Mean:	4.802	4.802	0.0518			
SD :	0.0364	0.0364	0.0004			
%RSD:	0.8	0.8	0.7458			

QC value within specified limits.

=====  
Element: Hg Seq. No.: 55 AS Loc.: 8 Date: 02/16/2010  
Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0012	0.0043	10:38:52	No
2	0.038	0.038	0.0012	0.0043	10:39:27	No
Mean:	0.038	0.038	0.0012			
SD :	0.0003	0.0003	0.0000			
%RSD:	0.8	0.8	0.2677			

QC value within specified limits.

=====  
Element: Hg Seq. No.: 56 AS Loc.: 37 Date: 02/16/2010  
Sample ID: 1202029993|i||947654|MB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.020	-0.020	0.0006	0.0037	10:40:55	No
2	-0.029	-0.029	0.0005	0.0036	10:41:30	No
Mean:	-0.025	-0.025	0.0005			
SD :	0.0060	0.0060	0.0001			
%RSD:	24.3	24.3	11.6617			

=====  
Element: Hg Seq. No.: 57 AS Loc.: 38 Date: 02/16/2010  
Sample ID: 1202029994|i|10||LCS

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	3.849	3.849	0.0417	0.0448	10:42:53	No
2	3.831	3.831	0.0415	0.0446	10:43:28	No
Mean:	3.840	3.840	0.0416			
SD :	0.0129	0.0129	0.0001			
%RSD:	0.3	0.3	0.3301			

=====  
=====

Element: Hg Seq. No.: 58 AS Loc.: 39 Date: 02/16/2010  
 Sample ID: 245688001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.233	0.233	0.0033	0.0064	10:44:51	No
2	0.205	0.205	0.0030	0.0061	10:45:26	No
Mean:	0.219	0.219	0.0031			
SD :	0.0195	0.0195	0.0002			
%RSD:	8.9	8.9	6.6290			

Element: Hg Seq. No.: 59 AS Loc.: 40 Date: 02/16/2010  
 Sample ID: 1202029995|i|||DUP

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.204	0.204	0.0030	0.0061	10:46:50	No
2	0.203	0.203	0.0030	0.0061	10:47:25	No
Mean:	0.204	0.204	0.0030			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.5	0.5	0.3809			

Element: Hg Seq. No.: 60 AS Loc.: 41 Date: 02/16/2010  
 Sample ID: 1202029996|i|||MS

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.156	2.156	0.0237	0.0268	10:48:49	No
2	2.134	2.134	0.0235	0.0266	10:49:24	No
Mean:	2.145	2.145	0.0236			
SD :	0.0157	0.0157	0.0002			
%RSD:	0.7	0.7	0.7071			

Element: Hg Seq. No.: 61 AS Loc.: 42 Date: 02/16/2010  
 Sample ID: 1202029998|i|||MSD

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.164	2.164	0.0238	0.0269	10:50:49	No
2	2.151	2.151	0.0236	0.0268	10:51:24	No
Mean:	2.158	2.158	0.0237			
SD :	0.0092	0.0092	0.0001			
%RSD:	0.4	0.4	0.4140			

Element: Hg Seq. No.: 62 AS Loc.: 43 Date: 02/16/2010  
 Sample ID: 1202029997|i|5||SDILT

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.064	-0.064	0.0001	0.0033	10:52:49	No
2	-0.076	-0.076	0.0000	0.0031	10:53:24	No
Mean:	-0.070	-0.070	0.0001			
SD :	0.0083	0.0083	0.0001			
%RSD:	11.8	11.8	144.8537			

Element: Hg Seq. No.: 63 AS Loc.: 44 Date: 02/16/2010  
 Sample ID: 245688002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.289	0.289	0.0039	0.0070	10:54:50	No
2	0.263	0.263	0.0036	0.0067	10:55:24	No

Mean: 0.276 0.276 0.0037  
 SD : 0.0181 0.0181 0.0002  
 %RSD: 6.6 6.6 5.1554

=====  
 Element: Hg Seq. No.: 64 AS Loc.: 45 Date: 02/16/2010  
 Sample ID: 245688003|i|||

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.261	0.261	0.0036	0.0067	10:56:50	No
2	0.270	0.270	0.0037	0.0068	10:57:25	No
Mean:	0.266	0.266	0.0036			
SD :	0.0065	0.0065	0.0001			
%RSD:	2.4	2.4	1.8947			

=====  
 Element: Hg Seq. No.: 65 AS Loc.: 46 Date: 02/16/2010  
 Sample ID: 245688004|i|||

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.284	0.284	0.0038	0.0070	10:58:51	No
2	0.272	0.272	0.0037	0.0068	10:59:26	No
Mean:	0.278	0.278	0.0038			
SD :	0.0079	0.0079	0.0001			
%RSD:	2.8	2.8	2.2293			

=====  
 Element: Hg Seq. No.: 66 AS Loc.: 7 Date: 02/16/2010  
 Sample ID: CCV

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	4.777	4.777	0.0515	0.0546	11:00:53	No
2	4.776	4.776	0.0515	0.0546	11:01:28	No
Mean:	4.777	4.777	0.0515			
SD :	0.0009	0.0009	0.0000			
%RSD:						

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 67 AS Loc.: 8 Date: 02/16/2010  
 Sample ID: CCB

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Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0008	0.0039	11:02:56	No
2	-0.008	-0.008	0.0007	0.0039	11:03:30	No
Mean:	-0.004	-0.004	0.0008			
SD :	0.0054	0.0054	0.0001			
%RSD:	143.7	143.7	7.4420			

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 68 AS Loc.: 47 Date: 02/16/2010  
 Sample ID: 245688005|i|||

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Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.250	0.250	0.0035	0.0066	11:04:57	No
2	0.243	0.243	0.0034	0.0065	11:05:32	No
Mean:	0.247	0.247	0.0034			
SD :	0.0047	0.0047	0.0001			
%RSD:	1.9	1.9	1.4689			

Element: Hg Seq. No.: 69 AS Loc.: 48 Date: 02/16/2010  
 Sample ID: 245688006|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.134	0.134	0.0022	0.0054	11:06:56	No
2	0.133	0.133	0.0022	0.0054	11:07:31	No
Mean:	0.134	0.134	0.0022			
SD :	0.0003	0.0003	0.0000			
%RSD:	0.3	0.3	0.1600			

Element: Hg Seq. No.: 70 AS Loc.: 49 Date: 02/16/2010  
 Sample ID: 245688007|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.413	0.413	0.0052	0.0083	11:08:51	No
2	0.393	0.393	0.0050	0.0081	11:09:26	No
Mean:	0.403	0.403	0.0051			
SD :	0.0140	0.0140	0.0001			
%RSD:	3.5	3.5	2.9298			

Element: Hg Seq. No.: 71 AS Loc.: 50 Date: 02/16/2010  
 Sample ID: 245688008|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.323	0.323	0.0042	0.0074	11:10:46	No
2	0.330	0.330	0.0043	0.0075	11:11:20	No
Mean:	0.326	0.326	0.0043			
SD :	0.0054	0.0054	0.0001			
%RSD:	1.6	1.6	1.3299			

Element: Hg Seq. No.: 72 AS Loc.: 51 Date: 02/16/2010  
 Sample ID: 245688009|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.247	0.247	0.0034	0.0066	11:12:41	No
2	0.240	0.240	0.0034	0.0065	11:13:15	No
Mean:	0.244	0.244	0.0034			
SD :	0.0048	0.0048	0.0001			
%RSD:	2.0	2.0	1.5150			

Element: Hg Seq. No.: 73 AS Loc.: 52 Date: 02/16/2010  
 Sample ID: 245688010|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.276	0.276	0.0037	0.0069	11:14:38	No
2	0.263	0.263	0.0036	0.0067	11:15:13	No
Mean:	0.270	0.270	0.0037			
SD :	0.0087	0.0087	0.0001			
%RSD:	3.2	3.2	2.5292			

Element: Hg Seq. No.: 74 AS Loc.: 53 Date: 02/16/2010  
 Sample ID: 245688011|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.477	0.477	0.0059	0.0090	11:16:35	No
2	0.465	0.465	0.0057	0.0089	11:17:09	No

Mean: 0.471 0.471 0.0058  
 SD : 0.0088 0.0088 0.0001  
 %RSD: 1.9 1.9 1.5999

=====  
 Element: Hg Seq. No.: 75 AS Loc.: 54 Date: 02/16/2010  
 Sample ID: 245688012|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.438	0.438	0.0055	0.0086	11:18:31	No
2	0.428	0.428	0.0053	0.0085	11:19:06	No
Mean:	0.433	0.433	0.0054			
SD :	0.0074	0.0074	0.0001			
%RSD:	1.7	1.7	1.4448			

=====  
 Element: Hg Seq. No.: 76 AS Loc.: 55 Date: 02/16/2010  
 Sample ID: 245688013|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.305	0.305	0.0040	0.0072	11:20:28	No
2	0.295	0.295	0.0039	0.0071	11:21:03	No
Mean:	0.300	0.300	0.0040			
SD :	0.0071	0.0071	0.0001			
%RSD:	2.4	2.4	1.8871			

=====  
 Element: Hg Seq. No.: 77 AS Loc.: 56 Date: 02/16/2010  
 Sample ID: 245688014|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.135	0.135	0.0022	0.0054	11:22:26	No
2	0.142	0.142	0.0023	0.0055	11:23:01	No
Mean:	0.138	0.138	0.0023			
SD :	0.0050	0.0050	0.0001			
%RSD:	3.6	3.6	2.3207			

=====  
 Element: Hg Seq. No.: 78 AS Loc.: 7 Date: 02/16/2010  
 Sample ID: CCV

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	4.920	4.920	0.0530	0.0561	11:24:26	No
2	4.889	4.889	0.0527	0.0558	11:25:01	No
Mean:	4.904	4.904	0.0529			
SD :	0.0213	0.0213	0.0002			
%RSD:	0.4	0.4	0.4284			

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 79 AS Loc.: 8 Date: 02/16/2010  
 Sample ID: CCB

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.043	0.043	0.0013	0.0044	11:26:29	No
2	0.043	0.043	0.0013	0.0044	11:27:04	No
Mean:	0.043	0.043	0.0013			
SD :	0.0005	0.0005	0.0000			
%RSD:	1.1	1.1	0.3837			

QC value within specified limits.

# Miscellaneous

# Prep LogBook

Analyst: BXA1 Verified by: \_\_\_\_\_

Batch: 948031

Lab SOP: GL-MA-E-009 REV# 19

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202030846		SW846 3050B	08-FEB-2010 23:30	0.519 g	50 mL	96.33911	.509	g
LCS	1202030851		SW846 3050B	08-FEB-2010 23:30	0.509 g	50 mL	98.23183	.25	mL
SAMPLE	245688001		SW846 3050B	08-FEB-2010 23:30	0.506 g	50 mL	98.81423	.25	mL
DUP	1202030847	245688001	SW846 3050B	08-FEB-2010 23:30	0.532 g	50 mL	93.98496	.25	mL
SDILT	1202030848	245688001	SW846 3050B	08-FEB-2010 23:30	0.506 g	50 mL	98.81423	.25	mL
MS	1202030849	245688001	SW846 3050B	08-FEB-2010 23:30	0.54 g	50 mL	92.59259	.25	mL
MSD	1202030850	245688001	SW846 3050B	08-FEB-2010 23:30	0.559 g	50 mL	89.44544	.25	mL
SAMPLE	245688002		SW846 3050B	08-FEB-2010 23:30	0.521 g	50 mL	95.96929	.25	mL
SAMPLE	245688003		SW846 3050B	08-FEB-2010 23:30	0.505 g	50 mL	99.00999	.25	mL
SAMPLE	245688004		SW846 3050B	08-FEB-2010 23:30	0.5 g	50 mL	100	.25	mL
SAMPLE	245688005		SW846 3050B	08-FEB-2010 23:30	0.505 g	50 mL	99.00999	.25	mL
SAMPLE	245688006		SW846 3050B	08-FEB-2010 23:30	0.559 g	50 mL	89.44544	.25	mL
SAMPLE	245688007		SW846 3050B	08-FEB-2010 23:30	0.531 g	50 mL	94.16196	.25	mL
SAMPLE	245688008		SW846 3050B	08-FEB-2010 23:30	0.5 g	50 mL	100	.25	mL
SAMPLE	245688009		SW846 3050B	08-FEB-2010 23:30	0.517 g	50 mL	96.7118	.25	mL
SAMPLE	245688010		SW846 3050B	08-FEB-2010 23:30	0.516 g	50 mL	96.89922	.25	mL
SAMPLE	245688011		SW846 3050B	08-FEB-2010 23:30	0.522 g	50 mL	95.78544	.25	mL
SAMPLE	245688012		SW846 3050B	08-FEB-2010 23:30	0.502 g	50 mL	99.60159	.25	mL
SAMPLE	245688013		SW846 3050B	08-FEB-2010 23:30	0.522 g	50 mL	95.78544	.25	mL
SAMPLE	245688014		SW846 3050B	08-FEB-2010 23:30	0.5 g	50 mL	100	.25	mL

Comments sample#245688001 is a brown, moist, soil.

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID
1264396	1.25 mL	Nitric Acid CONC.

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# Prep LogBook

Analyst: BCD1  
 Batch: 954750  
 Lab SOP: GL-MA-E-009 REV# 19

Verified by: \_\_\_\_\_  
 Type Sample Id Lot Id Spike Amount Spike Units  
 LCS 1202046766 U1062540-1 .503 g  
 MS 1202030849 U11268741-01 .25 mL  
 MS 1202030849 U11268744-06 .25 mL  
 MSD 1202030850 U11268741-01 .25 mL  
 MSD 1202030850 U11268744-06 .25 mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202046765		SW846 3050B	18-FEB-2010 20:02	0.532 g	50 mL	93.98496	SOIL
LCS	1202046766		SW846 3050B	18-FEB-2010 20:02	0.503 g	50 mL	99.40358	SOIL
SAMPLE	245688001		SW846 3050B	18-FEB-2010 20:02	0.513 g	50 mL	97.46589	SOIL
DUP	1202030847	245688001	SW846 3050B	18-FEB-2010 20:02	0.516 g	50 mL	96.89922	SOIL
SDILT	1202030848	245688001	SW846 3050B	18-FEB-2010 20:02	0.513 g	50 mL	97.46589	SOIL
MS	1202030849	245688001	SW846 3050B	18-FEB-2010 20:02	0.525 g	50 mL	95.2381	SOIL
MSD	1202030850	245688001	SW846 3050B	18-FEB-2010 20:02	0.504 g	50 mL	99.20635	SOIL
SAMPLE	245688002		SW846 3050B	18-FEB-2010 20:02	0.503 g	50 mL	99.40358	SOIL
SAMPLE	245688003		SW846 3050B	18-FEB-2010 20:02	0.597 g	50 mL	83.75209	SOIL
SAMPLE	245688004		SW846 3050B	18-FEB-2010 20:02	0.5 g	50 mL	100	SOIL
SAMPLE	245688005		SW846 3050B	18-FEB-2010 20:02	0.501 g	50 mL	99.8004	SOIL
SAMPLE	245688006		SW846 3050B	18-FEB-2010 20:02	0.534 g	50 mL	93.63296	SOIL
SAMPLE	245688007		SW846 3050B	18-FEB-2010 20:02	0.543 g	50 mL	92.08103	SOIL
SAMPLE	245688008		SW846 3050B	18-FEB-2010 20:02	0.506 g	50 mL	98.81423	SOIL
SAMPLE	245688009		SW846 3050B	18-FEB-2010 20:02	0.503 g	50 mL	99.40358	SOIL
SAMPLE	245688010		SW846 3050B	18-FEB-2010 20:02	0.518 g	50 mL	96.5251	SOIL
SAMPLE	245688011		SW846 3050B	18-FEB-2010 20:02	0.5 g	50 mL	100	SOIL
SAMPLE	245688012		SW846 3050B	18-FEB-2010 20:02	0.503 g	50 mL	99.40358	SOIL
SAMPLE	245688013		SW846 3050B	18-FEB-2010 20:02	0.556 g	50 mL	89.92806	SOIL
SAMPLE	245688014		SW846 3050B	18-FEB-2010 20:02	0.63 g	50 mL	79.36508	SOIL

Reagent/Solvent Lot ID Amount Description  
 1265209 10 mL HYDROCHLORIC ACID  
 1268732 1.25 mL Nitric Acid CONC.

Comments: The QC sample is a moist, brown soil.

# Prep LogBook

Analyst: BXA1 Verified by: \_\_\_\_\_

Batch: 948033

Lab SOP: GL-MA-E-009 REV# 19

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202030852		SW846 3050B	23-FEB-2010 22:52	0.524 g	50 mL	95.41985	.546	g
LCS	1202030857		SW846 3050B	23-FEB-2010 22:52	0.546 g	50 mL	91.57509	.5	mL
SAMPLE	245688001		SW846 3050B	23-FEB-2010 22:52	0.516 g	50 mL	96.89922	.5	mL
DUP	1202030853	245688001	SW846 3050B	23-FEB-2010 22:52	0.515 g	50 mL	97.08738	.5	mL
SDILT	1202030854	245688001	SW846 3050B	23-FEB-2010 22:52	0.516 g	50 mL	96.89922	.5	mL
MS	1202030855	245688001	SW846 3050B	23-FEB-2010 22:52	0.579 g	50 mL	86.35579	.5	mL
MSD	1202030856	245688001	SW846 3050B	23-FEB-2010 22:52	0.504 g	50 mL	99.20635	.5	mL
SAMPLE	245688002		SW846 3050B	23-FEB-2010 22:52	0.535 g	50 mL	93.45794	.5	mL
SAMPLE	245688003		SW846 3050B	23-FEB-2010 22:52	0.572 g	50 mL	87.41259	.5	mL
SAMPLE	245688004		SW846 3050B	23-FEB-2010 22:52	0.524 g	50 mL	95.41985	.5	mL
SAMPLE	245688005		SW846 3050B	23-FEB-2010 22:52	0.537 g	50 mL	93.10987	.5	mL
SAMPLE	245688006		SW846 3050B	23-FEB-2010 22:52	0.549 g	50 mL	91.07468	.5	mL
SAMPLE	245688007		SW846 3050B	23-FEB-2010 22:52	0.533 g	50 mL	93.80863	.5	mL
SAMPLE	245688008		SW846 3050B	23-FEB-2010 22:52	0.57 g	50 mL	87.7193	.5	mL
SAMPLE	245688009		SW846 3050B	23-FEB-2010 22:52	0.553 g	50 mL	90.41591	.5	mL
SAMPLE	245688010		SW846 3050B	23-FEB-2010 22:52	0.528 g	50 mL	94.69697	.5	mL
SAMPLE	245688011		SW846 3050B	23-FEB-2010 22:52	0.523 g	50 mL	95.60229	.5	mL
SAMPLE	245688012		SW846 3050B	23-FEB-2010 22:52	0.501 g	50 mL	99.8004	.5	mL
SAMPLE	245688013		SW846 3050B	23-FEB-2010 22:52	0.529 g	50 mL	94.51796	.5	mL
SAMPLE	245688014		SW846 3050B	23-FEB-2010 22:52	0.593 g	50 mL	84.31703	.5	mL

Comments sample#245688001 is a brown, moist soil.

Reagent/Solvent Lot ID	Amount	Description
1250038-02	1.5 mL	Hydrogen Peroxide 30%
1268732	5 mL	Nitric Acid CONC.

# Prep LogBook

Analyst: TXB3 Verified by: \_\_\_\_\_

Batch: 947653

Lab SOP: GL-MA-E-010 REV# 23

Type Sample Id Lot. Id Spike Amount Spike Units

LCS 1202029994 UI031809A .204 g

MS 1202029996 WHG100215-14 .3 mL

MSD 1202029998 WHG100215-14 .3 mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202029993		SW846 7471A Prep	15-FEB-2010 16:45	0.523 g	30 mL	57.36138	SOIL
LCS	1202029994		SW846 7471A Prep	15-FEB-2010 16:45	0.204 g	30 mL	147.05882	SOIL
SAMPLE	245688001		SW846 7471A Prep	15-FEB-2010 16:45	0.535 g	30 mL	56.07477	SOIL
DUP	1202029995	245688001	SW846 7471A Prep	15-FEB-2010 16:45	0.566 g	30 mL	53.00353	SOIL
MS	1202029996	245688001	SW846 7471A Prep	15-FEB-2010 16:45	0.548 g	30 mL	54.74453	SOIL
MSD	1202029998	245688001	SW846 7471A Prep	15-FEB-2010 16:45	0.576 g	30 mL	52.08333	SOIL
SDILT	1202029997	245688001	SW846 7471A Prep	15-FEB-2010 16:45	0.535 g	30 mL	56.07477	SOIL
SAMPLE	245688002		SW846 7471A Prep	15-FEB-2010 16:45	0.54 g	30 mL	55.55556	SOIL
SAMPLE	245688003		SW846 7471A Prep	15-FEB-2010 16:45	0.518 g	30 mL	57.91506	SOIL
SAMPLE	245688004		SW846 7471A Prep	15-FEB-2010 16:45	0.581 g	30 mL	51.63511	SOIL
SAMPLE	245688005		SW846 7471A Prep	15-FEB-2010 16:45	0.515 g	30 mL	58.25243	SOIL
SAMPLE	245688006		SW846 7471A Prep	15-FEB-2010 16:45	0.559 g	30 mL	53.66726	SOIL
SAMPLE	245688007		SW846 7471A Prep	15-FEB-2010 16:45	0.521 g	30 mL	57.58157	SOIL
SAMPLE	245688008		SW846 7471A Prep	15-FEB-2010 16:45	0.542 g	30 mL	55.35055	SOIL
SAMPLE	245688009		SW846 7471A Prep	15-FEB-2010 16:45	0.536 g	30 mL	55.97015	SOIL
SAMPLE	245688010		SW846 7471A Prep	15-FEB-2010 16:45	0.568 g	30 mL	52.8169	SOIL
SAMPLE	245688011		SW846 7471A Prep	15-FEB-2010 16:45	0.55 g	30 mL	54.54545	SOIL
SAMPLE	245688012		SW846 7471A Prep	15-FEB-2010 16:45	0.543 g	30 mL	55.24862	SOIL
SAMPLE	245688013		SW846 7471A Prep	15-FEB-2010 16:45	0.538 g	30 mL	55.76208	SOIL
SAMPLE	245688014		SW846 7471A Prep	15-FEB-2010 16:45	0.579 g	30 mL	51.81347	SOIL

Comments Sample 245688001 is a wet muddy brown soil.

Digestion Start Date: 15-FEB-10 16:45

Digestion End Date: 15-FEB-10 17:15

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent
WHG100215-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100215-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100215-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100215-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100215-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100215-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

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### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 16-FEB-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> ICP	<b>Test / Method:</b> SW846 3050B/6010B	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 948032	<b>Sample Numbers:</b> See Below		

Potentially affected work order(s)(SDG): 245688(10-1433)

**Application Issues:**

Failed Recovery for MS/PS  
Failed RPD for MS/MSD, or PS/PSD  
Failed Recovery for MSD/PSD  
Failed RPD for DUP

**Specification and Requirements  
Exception Description:**

1. Failed Recovery for MS/PS:  
QC 1202030849MS
2. Failed RPD for DUP:  
QC 1202030847DUP
3. Failed RPD for MS/MSD, or PS/PSD:  
QC 1202030850MSD
4. Failed Recovery for MSD/PSD:  
QC 1202030850MSD

**DER Disposition:**

1. The matrix spike recovery failed outside of the control limits for magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
2. The sample and sample duplicate % RPD failed outside the control limits for aluminum, barium, calcium, cobalt, lead, magnesium, manganese, potassium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for calcium due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
4. The matrix spike duplicate recovery failed outside of the control limits for calcium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

**Originator's Name:**

Helen Camello 18-FEB-10

**Data Validator/Group Leader:**

Eric Lawson 19-FEB-10

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 23-FEB-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> ICP	<b>Test / Method:</b> SW846 3050B/6010B	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 954751	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 245688(10-1433)</b>			
<b>Application Issues:</b> Failed RPD for DUP			
<b>Specification and Requirements Exception Description:</b>		<b>DER Disposition:</b>	
1. Failed RPD for DUP:  QC 1202030847DUP		1. The sample and sample duplicate % RPD failed outside the control limits for copper due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.	

**Originator's Name:**

Helen Camello 23-FEB-10

**Data Validator/Group Leader:**

Louise Smith 23-FEB-10

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 24-FEB-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> ICP/MS	<b>Test / Method:</b> SW846 3050B/6020	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 948035	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 245688(10-1433)</b> <b>Application Issues:</b> Failed Recovery for MS/PS Failed RPD for MS/MSD, or PS/PSD Failed Recovery for MSD/PSD			
<b>Specification and Requirements</b> <b>Exception Description:</b>		<b>DER Disposition:</b>	
1. Failed Recovery for MS/PS: QC 1202030855MS 2. Failed RPD for MS/MSD, or PS/PSD: QC 1202030856MSD 3. Failed Recovery for MSD/PSD: QC 1202030856MSD		The matrix spike, matrix spike duplicate and the matrix spike duplicate % RPD failed outside of the control limits for Se. These failures were due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.	

**Originator's Name:**

Paul Boyd

24-FEB-10

**Data Validator/Group Leader:**

Elizabeth Janssen

24-FEB-10

# Standard Logbook

**Serial ID:** UHG1167639-01      **Opened:** 13-AUG-09      **Amount :** 125 mL  
**Name:** MHGSTOCK1      **Received:** 13-AUG-09      **Catalog Number :** PLHG4-2Y  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 15-37HG  
**Employee:** Bryan Davis      **Solvent :** 10% HNO3  
**Supplier:** Spex  
**Description:** Mercury Source Standard #1 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

**Serial ID:** UHG1167641-02      **Opened:** 13-AUG-09      **Amount :** 100 mL  
**Name:** MHGSTOCK2      **Received:** 13-AUG-09      **Catalog Number :** AHG1KN-100  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 4905530  
**Employee:** Bryan Davis      **Solvent :** 3% HNO3  
**Supplier:** Ricca Chemical Company  
**Description:** Mercury Source Standard #2 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

**Serial ID:** UI031809A      **Opened:** 18-MAR-09      **Catalog Number :** 540  
**Name:** METALSOILSRM      **Received:** 18-MAR-09      **Lot Number :** D061-540  
**Type:** Source Material      **Expires:** 10-OCT-10  
**Employee:** Jamie Johnson  
**Supplier:** ERA  
**Description:** Metals LCS Soil SRM  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

# Standard Logbook

**Serial ID:** UI062540-I      **Opened:** 12-JUN-09      **Amount :** 80 g  
**Name:** ICP SOIL SRM      **Received:** 12-JUN-09      **Lot Number :** D062-540  
**Type:** Source Material      **Expires:** 31-JAN-12  
**Employee:** Bryan Davis  
**Supplier:** ERA  
**Description:** Metals Soil LCS SRM ICP/Hg  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

**Serial ID:** UI062540-MS      **Opened:** 12-JUN-09      **Lot Number :** D062-540  
**Name:** ICPMS SOIL SRM      **Received:** 12-JUN-09  
**Type:** Source Material      **Expires:** 31-JAN-12  
**Employee:** Bryan Davis  
**Supplier:** ERA  
**Description:** Metals Soil LCS SRM ICPMS  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg



# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

**Serial ID:** UI090422-40      **Opened:** 04-MAY-09      **Amount :** 500 mL  
**Name:** TRACE ICP ICSA SOLN A      **Received:** 22-APR-09      **Catalog Number :** 160005-01-03  
**Type:** Source Material      **Expires:** 04-MAY-10      **Lot Number :** 1013357  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** o2si  
**Description:** TRACE ICP ICSA SOLN A mg/L +/- 0.5% IN 5% HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

**Serial ID:** UI090610-03      **Opened:** 10-JUN-09      **Catalog Number :** 060074-06-01  
**Name:** ICPMS Tungsten - 10mg/L      **Received:** 10-JUN-09      **Lot Number :** 1016338  
**Type:** Source Material      **Expires:** 10-JUN-10      **Solvent :** 2% HNO3  
**Employee:** Paul Boyd  
**Supplier:** O2SI  
**Description:** ICPMS Tungsten standard SPIKE - 10mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

**Serial ID:** UI090701-09      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #1      **Received:** 01-JUL-09      **Catalog Number :** 160044-09-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016477  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** O2SI  
**Description:** ICPMS CRDL Master Soln #1  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UI090701-10      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #2      **Received:** 01-JUL-09      **Catalog Number :** 160044-08-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016476  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS CRDL Soln #2  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

**Serial ID:** UI090701-40      **Opened:** 01-JUL-09      **Amount :** 500 mL  
**Name:** TRACE ICP Stock PQL St      **Received:** 30-JUN-09      **Catalog Number :** 160543-01-03  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016475  
**Employee:** Helen Camello      **Solvent :** +/- 0.5% in 2% HNO3 + TrHF  
**Supplier:** 02si  
**Description:** TRACE ICP Stock PQL Standard  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

**Serial ID:** UI090828-42      **Opened:** 16-SEP-09      **Amount :** 500 mL  
**Name:** TRACE ICP Na-1000SOUR      **Received:** 27-AUG-09      **Catalog Number :** 060011-02-03  
**Type:** Source Material      **Expires:** 16-SEP-10      **Lot Number :** 1017098  
**Employee:** Helen Camello      **Solvent :** 1%HNO3  
**Supplier:** 02SI  
**Description:** Sodium 1000 +/- 3 ug/mL in 1% HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

**Serial ID:** UI090925-40      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX38-500N  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909129  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1A 5%HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

**Serial ID:** UI090925-41      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX39-500B  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909130  
**Employee:** Helen Camello      **Solvent :** 5%HNO3,TR.HF  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

## Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

**Serial ID:** UI091015-42      **Opened:** 28-OCT-09      **Amount :** 500 mL  
**Name:** SI 1000mg/L      **Received:** 15-OCT-09      **Catalog Number :** 060014-02-03  
**Type:** Source Material      **Expires:** 28-OCT-10      **Lot Number :** 1017581  
**Employee:** Helen Camello      **Solvent :** 0.3%H<sub>2</sub>O(NH<sub>4</sub>)<sub>2</sub>SiF<sub>6</sub>  
**Supplier:** o2si  
**Description:** Silicon 1000mg/L +/-0.3%in H<sub>2</sub>O(NH<sub>4</sub>)<sub>2</sub>SiF<sub>6</sub>  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI091015-A      **Opened:** 15-OCT-09      **Catalog Number :** 160067-03  
**Name:** ICP-MS DOE SOIL SPIKE      **Received:** 15-OCT-09      **Lot Number :** 1017142  
**Type:** Source Material      **Expires:** 15-OCT-10  
**Employee:** Francena Armstrong  
**Supplier:** O2si  
**Description:** ICP-MS Spike for soil products.  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

# Standard Logbook

**Serial ID:** UI091015-B      **Opened:** 15-OCT-09      **Catalog Number :** 160067-03  
**Name:** ICP-MS DOE SOIL SPIKE      **Received:** 15-OCT-09      **Lot Number :** 1017142  
**Type:** Source Material      **Expires:** 15-OCT-10  
**Employee:** Francena Armstrong  
**Supplier:** 02si  
**Description:** ICP-MS Spike for Soil Products  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

**Serial ID:** UI091102-40      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1A SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-1-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930215  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Std #1A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

**Serial ID:** UI091102-41      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1B SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-2-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930216  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Standard #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

**Serial ID:** UI091102-42      **Opened:** 17-NOV-09      **Amount :** 200 mL  
**Name:** SILICON      **Received:** 02-NOV-09      **Catalog Number :** HP100050-4F  
**Type:** Source Material      **Expires:** 17-NOV-10      **Lot Number :** 0921924  
**Employee:** Helen Camello      **Solvent :** H2O/tr HF  
**Supplier:** ENVIRNMENTAL EXPRESS  
**Description:** SILICON 1000mg/L H2O/tr HF  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI091217-06      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master A      **Received:** 17-DEC-09      **Catalog Number :** 160055-01  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018209  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV SOLN A - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

**Serial ID:** UI091217-07      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master B      **Received:** 17-DEC-09      **Catalog Number :** 160054-02  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018210  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV Soln B - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

**Serial ID:** UI091217-08      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master C      **Received:** 17-DEC-09      **Catalog Number :** 160054-03  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018211  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV Soln C - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

**Serial ID:** UI091217-12      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master B      **Received:** 17-DEC-09      **Catalog Number :** 160033-02  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018212  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS ICSAB Master B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

**Serial ID:** UI091217-13      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master C      **Received:** 17-DEC-09      **Catalog Number :** 160033-03  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1016926  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS ICSAB Master C  
**Comments:** None

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

**Serial ID:** UI100120-01      **Opened:** 20-JAN-10      **Lot Number :** 1018095  
**Name:** METALSPIKE-1      **Received:** 20-JAN-10  
**Type:** Source Material      **Expires:** 20-JAN-11  
**Employee:** Bryan Davis  
**Supplier:** OS2I  
**Description:** Metals Spike Mix I  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

**Serial ID:** UI100120-06      **Opened:** 20-JAN-10      **Lot Number :** 1018096  
**Name:** METALSPIKE-2      **Received:** 20-JAN-10  
**Type:** Source Material      **Expires:** 20-JAN-11  
**Employee:** Bryan Davis  
**Supplier:** OS2I  
**Description:** Metals Spike Mix II  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL



# Standard Logbook

**Serial ID:** UI100210-48      **Opened:** 11-FEB-10      **Amount :** 1000 mL  
**Name:** Trace ICP ICSEA      **Received:** 10-FEB-10      **Catalog Number :** 160005-02  
**Type:** Source Material      **Expires:** 11-FEB-11      **Lot Number :** 1018807  
**Employee:** Helen Camello      **Solvent :** 3% HCl + 1% HNO3  
**Supplier:** o2si  
**Description:** Trace ICP Interferent Check Standard A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

**Serial ID:** UI100211-40      **Opened:** 11-FEB-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD-A      **Received:** 10-FEB-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 11-FEB-11      **Lot Number :** 1018409  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** 02SI  
**Description:** ICP HIGH RANGE STD SOLUTION A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

**Serial ID:** UI100211-41      **Opened:** 11-FEB-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD B      **Received:** 10-FEB-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 11-FEB-11      **Lot Number :** 1018409  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** 02SI  
**Description:** ICP HIGH RANGE STD SOLUTION B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

**Serial ID:** UI100217-49.2      **Opened:** 19-FEB-10      **Amount :** 100 ml  
**Name:** Trace ICP ICSAB      **Received:** 17-FEB-10      **Catalog Number :** 160066-04  
**Type:** Source Material      **Expires:** 20-FEB-10      **Lot Number :** 1018879  
**Employee:** Helen Camello      **Solvent :** 3% HCl + 1% HNO3  
**Supplier:** o2si  
**Description:** Trace ICP Interferent Check Standard AB  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

**Serial ID:** UI100219-11      **Opened:** 19-FEB-10      **Amount :** 1000 mL  
**Name:** ICP-MS ICSA Master A      **Received:** 19-FEB-10      **Catalog Number :** 160013-01-01L  
**Type:** Source Material      **Expires:** 19-FEB-11      **Lot Number :** 1018321  
**Employee:** Paul Boyd      **Solvent :** 2% HNO3  
**Supplier:** 02SI  
**Description:** ICP-MS ICSA Master A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

# Standard Logbook

**Serial ID:** UI1268741-01      **Opened:** 11-FEB-10      **Lot Number :** 1018514  
**Name:** METALSPIKE-1      **Received:** 11-FEB-10  
**Type:** Source Material      **Expires:** 11-FEB-11  
**Employee:** Bryan Davis  
**Supplier:** OS2I  
**Description:** Metals Spike Mix I  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

**Serial ID:** UI1268744-06      **Opened:** 11-FEB-10      **Lot Number :** 1018515  
**Name:** METALSPIKE-2      **Received:** 11-FEB-10  
**Type:** Source Material      **Expires:** 11-FEB-11  
**Employee:** Bryan Davis  
**Supplier:** OS2I  
**Description:** Metals Spike Mix II  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

**Serial ID:** UMS090303-01      **Opened:** 03-MAR-09      **Amount :** 250 mL  
**Name:** ICPMSCalSPIKEB      **Received:** 03-MAR-09      **Catalog Number :** ZGEL-100-250  
**Type:** Source Material      **Expires:** 28-FEB-10      **Lot Number :** 14-81JB  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UMS090303-02      **Opened:** 03-MAR-09      **Catalog Number :** ZGEL-102-250  
**Name:** ICPMSCalSPIKEA      **Received:** 03-MAR-09      **Lot Number :** 14-83JB  
**Type:** Source Material      **Expires:** 28-FEB-10  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

**Serial ID:** UMS090303-03      **Opened:** 03-MAR-09      **Amount :** 250 ml  
**Name:** ICPMSCalSPIKEC      **Received:** 03-MAR-09      **Catalog Number :** ZGEL-101-250  
**Type:** Source Material      **Expires:** 28-FEB-10      **Lot Number :** 15-199JB  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution C  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

**Serial ID:** IHG100215-01      **Opened:** 15-FEB-10      **Instrument Id :** Mercury  
**Name:** MHGINTER1      **Received:** 15-FEB-10      **Pipet Id :** Minou1  
**Type:** Intermediate      **Expires:** 16-FEB-10      **Solvent :** 1mL HNO3 + TypeI H2O  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Intermediate 1st Source 200 ug/L  
**Comments:** Prepare fresh daily

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** IHG100215-02      **Opened:** 15-FEB-10      **Pipet Id :** Minou1  
**Name:** MHGINTER2      **Received:** 15-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Intermediate      **Expires:** 16-FEB-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Intermediate 2nd Source 200 ug/L  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WHG100215-07      **Opened:** 15-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS0.2CRA      **Received:** 15-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 22-FEB-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working Standard 1st Source CAL S 0.2/CRA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

**Serial ID:** WHG100215-08      **Opened:** 15-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS0.5      **Received:** 15-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 22-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working Standard 1st Source CAL S 0.5  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

**Serial ID:** WHG100215-09      **Opened:** 15-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS2.0      **Received:** 15-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 22-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL S 2.0  
**Comments:** None

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

**Serial ID:** WHG100215-10      **Opened:** 15-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS5.0CCV      **Received:** 15-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 22-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL S 5.0/CCV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

**Serial ID:** WHG100215-11      **Opened:** 15-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS10.0      **Received:** 15-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 22-FEB-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL S 10.0  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

**Serial ID:** WHG100215-12      **Opened:** 15-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKS5.0ICV      **Received:** 15-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 22-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 2nd Source S 5.0/ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

**Serial ID:** WHG100215-14      **Opened:** 15-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGSOILMSSPIKE      **Received:** 15-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 22-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury soil working intermediate standard for MS  
**Comments:** None

# Standard Logbook

<b>Parent Material</b>	<b>Analyte</b>	<b>Parent Conc.</b>	<b>Aliquot</b>	<b>Final Vol.</b>	<b>Final Conc.</b>
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WI100212-43      **Opened:** 12-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 13-FEB-10      **Solvent :** 3%HCL and 1%HNO3 -1266496  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP 0.5/CCV CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

# Standard Logbook

**Serial ID:** WI100219-42      **Opened:** 19-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 20-FEB-10      **Solvent :** 3%HCL and 1%HNO3 -1270010  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP 0.1 PPM CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100219-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100219-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100219-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L



# Standard Logbook

**Serial ID:** WI100219-43      **Opened:** 19-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 20-FEB-10      **Solvent :** 3%HCL and 1%HNO3 -1270010  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP 0.5/CCV CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

# Standard Logbook

**Serial ID:** WI100219-44      **Opened:** 19-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 20-FEB-10      **Solvent :** 3%HCL and 1 %HNO3-1270010  
**Employee:** Helen Camello  
**Supplier:** o2si  
**Description:** Trace ICP Calibration Standard 1.0ppm  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

# Standard Logbook

**Serial ID:** WI100219-45      **Opened:** 19-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 20-FEB-10      **Solvent :** 3%HCL and 1%HNO3 -1270010  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP S-10 CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

**Serial ID:** WI100219-46      **Opened:** 19-FEB-10      **Balance Id :** 216  
**Name:** ICP TRACE ICV      **Received:** 25-SEP-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 20-FEB-10      **Solvent :** 3%HCL AND 1%HNO3-1270010  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** Initial Calibration Verification ICP Trace Metals  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

**Serial ID:** WI100219-47      **Opened:** 19-FEB-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 20-FEB-10      **Solvent :** 3%HCL & 1%HNO3-1270010  
**Employee:** Helen Camello  
**Supplier:** 02si  
**Description:** PQL Working Standard  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

**Serial ID:** WMS100224-04      **Opened:** 24-FEB-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 24-FEB-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 25-FEB-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1272768  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100224-04A      **Opened:** 24-FEB-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 24-FEB-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 25-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1272768  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

# Standard Logbook

<b>Parent Material</b>	<b>Analyte</b>	<b>Parent Conc.</b>	<b>Aliquot</b>	<b>Final Vol.</b>	<b>Final Conc.</b>
WMS100224-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

<b>Serial ID:</b> <u>WMS100224-05</u>	<b>Opened:</b> <u>24-FEB-10</u>	<b>Balance Id :</b> <u>40245216</u>
<b>Name:</b> <u>ICPMS ICV</u>	<b>Received:</b> <u>24-FEB-10</u>	<b>Pipet Id :</b> <u>3541598</u>
<b>Type:</b> <u>Working</u>	<b>Expires:</b> <u>25-FEB-10</u>	<b>Solvent :</b> <u>2%HNO3/1%HCl - 1272768</u>
<b>Employee:</b> <u>Paul Boyd</u>		
<b>Supplier:</b> <u>GEL</u>		
<b>Description:</b> <u>ICPMS ICV</u>		
<b>Comments:</b> <u>None</u>		

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

# Standard Logbook

**Serial ID:** WMS100224-06      **Opened:** 24-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 24-FEB-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 25-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1272768  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L



# Standard Logbook

**Serial ID:** WMS100224-07      **Opened:** 24-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 24-FEB-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 25-FEB-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1272768  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100224-08      **Opened:** 24-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 24-FEB-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 25-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1272768  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** 100202      **Opened:** 02-FEB-10      **Lot Number :** 200930201  
**Name:** I-HCL      **Received:** 02-FEB-10  
**Type:** Reagent/Solvent      **Expires:** 02-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** J.T. BAKER  
**Description:** HYDROCHLORIC ACID  
**Comments:** None

**Serial ID:** 1100721TCLP      **Opened:** 16-APR-09      **Lot Number :** H02026 L  
**Name:** I-HNO3      **Received:** 02-APR-09  
**Type:** Reagent/Solvent      **Expires:** 02-APR-10  
**Employee:** Clifford Postell  
**Supplier:** BAKER  
**Description:** Nitric Acid CONC.  
**Comments:** None

**Serial ID:** 1156689-A      **Opened:** 20-JUL-09      **Lot Number :** 41226920  
**Name:** B-KMnO4(VWR)-MER      **Received:** 20-JUL-09  
**Type:** Reagent/Solvent      **Expires:** 20-JUL-10  
**Employee:** Tara Griffin      **Verified:** 07-AUG-07  
**Supplier:** VWR  
**Description:** Potassium Permanganate  
**Comments:** None

# Standard Logbook

**Serial ID:** 1228372-A      **Opened:** 12-NOV-09      **Lot Number :** 49215936  
**Name:** B-NH2OH.HCl-MER      **Received:** 12-NOV-09  
**Type:** Reagent/Solvent      **Expires:** 12-NOV-10  
**Employee:** Tara Griffin  
**Supplier:** Fisher Scientific  
**Description:** Hydroxylamine Hydrochloride  
**Comments:** None

**Serial ID:** 1250038-02      **Opened:** 04-JAN-10      **Lot Number :** ZU74081198 mL  
**Name:** B-H2O2      **Received:** 04-JAN-10  
**Type:** Reagent/Solvent      **Expires:** 04-JAN-11  
**Employee:** Bryan Davis  
**Supplier:** EM SCIENCE  
**Description:** Hydrogen Peroxide 30%  
**Comments:** None

**Serial ID:** 1255532-C      **Opened:** 15-JAN-10      **Balance Id :** BAL-002  
**Name:** B-NaCl.NH2OH.HCl-MER      **Received:** 15-JAN-10  
**Type:** Reagent/Solvent      **Expires:** 15-JUL-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Hg reducing agent  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

**Serial ID:** 1257474-1      **Opened:** 20-JAN-10      **Instrument Id :** MERCURY  
**Name:** B-HNO3-MER      **Received:** 20-JAN-10      **Lot Number :** H20053  
**Type:** Reagent/Solvent      **Expires:** 20-JAN-11  
**Employee:** Tara Griffin  
**Supplier:** Mallinckrodt Chemicals  
**Description:** NITRIC ACID  
**Comments:** None

**Serial ID:** 1264396      **Opened:** 03-FEB-10      **Lot Number :** H51025 L  
**Name:** I-HNO3      **Received:** 02-FEB-10  
**Type:** Reagent/Solvent      **Expires:** 03-FEB-11  
**Employee:** Bryan Davis  
**Supplier:** BAKER  
**Description:** Nitric Acid CONC.  
**Comments:** None

# Standard Logbook

**Serial ID:** 1264796-A      **Opened:** 04-FEB-10      **Lot Number :** 200930201  
**Name:** B-HCl-MER      **Received:** 04-FEB-10  
**Type:** Reagent/Solvent      **Expires:** 04-FEB-11  
**Employee:** Tara Griffin  
**Supplier:** Aristar  
**Description:** Hydrochloric Acid Conc.  
**Comments:** None

**Serial ID:** 1264984-C      **Opened:** 04-FEB-10      **Balance Id :** BAL-002  
**Name:** B-KMnO4-MER      **Received:** 04-FEB-10  
**Type:** Reagent/Solvent      **Expires:** 20-JUL-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** 5% KMnO4 solution  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

**Serial ID:** 1265209      **Opened:** 04-FEB-10      **Lot Number :** J02039  
**Name:** I-HCL      **Received:** 04-FEB-10      **Preservative Id :** 5 none  
**Type:** Reagent/Solvent      **Expires:** 04-FEB-11  
**Employee:** Bryan Davis  
**Supplier:** J.T. BAKER  
**Description:** HYDROCHLORIC ACID  
**Comments:** None

**Serial ID:** 1266496      **Opened:** 08-FEB-10      **Amount :** 20 L  
**Name:** B-ICP-RINSE SOLN      **Received:** 20-JAN-10      **Lot Number :** H04040+G34050  
**Type:** Reagent/Solvent      **Expires:** 14-FEB-10      **Solvent :** 3%HCL+1%HNO3  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** 3%HCL+1%HNO3 RINSE SOLN.  
**Comments:** None

**Serial ID:** 1268732      **Opened:** 11-FEB-10      **Lot Number :** H12022 L  
**Name:** I-HNO3      **Received:** 11-FEB-10  
**Type:** Reagent/Solvent      **Expires:** 11-FEB-11  
**Employee:** Bryan Davis  
**Supplier:** BAKER  
**Description:** Nitric Acid CONC.  
**Comments:** None

## Standard Logbook

Serial ID: 1270010      Opened: 15-FEB-10      Amount : 20 L  
Name: B-ICP-RINSE SOLN      Received: 05-FEB-10      Lot Number : H04040+G34050  
Type: Reagent/Solvent      Expires: 21-FEB-10      Solvent : 3%HCL+1%HNO3  
Employee: Helen Camello  
Supplier: GEL  
Description: 3%HCL+1%HNO3 RINSE SOLN  
Comments: None

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Serial ID: 1272768      Opened: 22-FEB-10      Solvent : Type I Water  
Name: B-2%HNO3/1%HCL-ICPMS      Received: 22-FEB-10  
Type: Reagent/Solvent      Expires: 28-FEB-10  
Employee: Paul Boyd  
Supplier: GEL  
Description: 2%HNO3/1%HCL Solution (Type I Water)  
Comments: None

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Parent Material	Analyte	Parent Conc.	Alliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

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# **Metals Analysis**

# Case Narrative

**Metals Fractional Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1433-1**

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
245690001	RE15-10-8080
245690002	RE15-10-8079
1202030862	Method Blank (MB) ICP
1202030863	Laboratory Control Sample (LCS)
1202030866	245690001(RE15-10-8080L) Serial Dilution (SD)
1202030864	245690001(RE15-10-8080D) Sample Duplicate (DUP)
1202030865	245690001(RE15-10-8080S) Matrix Spike (MS)
1202030875	Method Blank (MB) ICP-MS
1202030876	Laboratory Control Sample (LCS)
1202030879	245690001(RE15-10-8080L) Serial Dilution (SD)
1202030877	245690001(RE15-10-8080D) Sample Duplicate (DUP)
1202030878	245690001(RE15-10-8080S) Matrix Spike (MS)
1202029965	Method Blank (MB) CVAA
1202029966	Laboratory Control Sample (LCS)
1202029969	245807001(RE15-10-8081L) Serial Dilution (SD)
1202029967	245807001(RE15-10-8081D) Sample Duplicate (DUP)
1202029968	245807001(RE15-10-8081S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.



### **Method/Analysis Information**

<b>Analytical Batch:</b>	948038, 948041 and 947646
<b>Prep Batch :</b>	948036, 948039 and 947645
<b>Standard Operating Procedures:</b>	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
<b>Analytical Method:</b>	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
<b>Prep Method :</b>	SW846 3005A and SW846 7470A Prep

### **Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

### **System Configuration**

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/- 7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

### **Calibration Information**

#### **Instrument Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG).

**CRDL Requirements**

All CRDL standard(s) met the referenced advisory control limits.

**ICSA/ICSAB Statement**

All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

**Continuing Calibration Blank (CCB) Requirements**

All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

**Continuing Calibration Verification (CCV) Requirements**

All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria. Due to software issues, the middle page (#69) is not available for reporting for CCV04 analyzed 12-FEB-10 at 12:38 on Optima3. Details of the values are on the form 2a and on the LIMS upload printout submitted in its place. Reprocessing the missing data sheet at this time would result in different values.

**Quality Control (QC) Information****Method Blank (MB) Statement**

The MBs analyzed with this SDG met the acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**Quality Control (QC) Sample Statement**

The following samples were selected as the quality control (QC) samples for this SDG: 245690001 and 245807001.

**Matrix Spike (MS) Recovery Statement**

The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

**Duplicate Relative Percent Difference (RPD) Statement**

The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

**Serial Dilution % Difference Statement**

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

## **Technical Information**

### **Holding Time Specifications**

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

### **Sample Dilutions**

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

### **Preparation Information**

The samples in this SDG were prepared exactly according to the cited SOP.

## **Miscellaneous Information**

### **Electronic Packaging Comment**

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

### **Data Exception (DER) Documentation**

Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

### **Additional Comments**

Additional comments were not required for this SDG.

## **Certification Statement**

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

**Review Validation:**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Kristen Parsons Date: 2/24/10

# Sample Data Summary

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245690001

BASIS: As Received

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-8080

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: WATER

%SOLIDS: 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/18/10 08:51	100217-2	948041
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/18/10 08:51	100217-2	948041
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7439-95-4	Magnesium	106	ug/L	J	85	300	300	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-96-5	Manganese	1.11	ug/L	J	1	5	5	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:09	021510W1-7	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-09-7	Potassium	128	ug/L	J	50	150	150	1	P	HSC	02/12/10 17:10	021210-1	948038
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-23-5	Sodium	255	ug/L	J	100	300	300	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/18/10 19:57	100218-6	948041
7440-62-2	Vanadium	1.06	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/12/10 17:10	021210-1	948038

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948038	948036	SW846 3005A	50	mL	50	mL	02/07/10	BCD1
948041	948039	SW846 3005A	50	mL	50	mL	02/07/10	BCD1

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-1433-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 245690002

BASIS: As Received

DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-8079

LEVEL: Low

DATE RECEIVED 28-JAN-10

MATRIX: WATER

%SOLIDS: 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	118	ug/L	J	68	200	200	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/18/10 09:16	100217-2	948041
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-39-3	Barium	1.88	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/18/10 09:16	100217-2	948041
7440-70-2	Calcium	90.3	ug/L	J	50	200	200	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-47-3	Chromium	1.49	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-89-6	Iron	75.5	ug/L	J	30	100	100	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-96-5	Manganese	5.97	ug/L		1	5	5	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:11	021510W1-7	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-09-7	Potassium	199	ug/L		50	150	150	1	P	HSC	02/12/10 17:38	021210-1	948038
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-23-5	Sodium	268	ug/L	J	100	300	300	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7440-61-1	Uranium	0.154	ug/L	J	0.05	0.2	0.2	1	MS	BAJ	02/18/10 20:06	100218-6	948041
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/12/10 17:38	021210-1	948038

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948038	948036	SW846 3005A	50	mL	50	mL	02/07/10	BCD1
948041	948039	SW846 3005A	50	mL	50	mL	02/07/10	BCD1

# **Quality Control Summary**



**METALS**  
-2a-  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Arsenic	465	ug/L	500	ug/L	93.1	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Copper	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Iron	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Nickel	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Potassium	2460	ug/L	2500	ug/L	98.4	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Selenium	2520	ug/L	2500	ug/L	101	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Silver	253	ug/L	250	ug/L	101.4	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Sodium	2550	ug/L	2500	ug/L	102	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Zinc	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Mercury	5.02	ug/L	5	ug/L	100.4	90.0 – 110.0	AV	15-FEB-10 09:34	021510W1-7
	Antimony	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	18-FEB-10 05:25	100217-2
	Cadmium	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	18-FEB-10 05:25	100217-2
	Beryllium	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	18-FEB-10 16:58	100218-3
	Lead	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	18-FEB-10 16:58	100218-3
	Manganese	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	18-FEB-10 16:58	100218-3
	Thallium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	18-FEB-10 16:58	100218-3
	Uranium	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	18-FEB-10 19:37	100218-6
CCV01										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Arsenic	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Barium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Calcium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	12-FEB-10 09:48	021210-1

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Copper	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Iron	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Magnesium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Nickel	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Selenium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Silver	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Sodium	10000	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Vanadium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Zinc	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	15-FEB-10 09:40	021510W1-7
	Antimony	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	18-FEB-10 05:56	100217-2
	Cadmium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	18-FEB-10 05:56	100217-2
	Beryllium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	18-FEB-10 17:11	100218-3
	Lead	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	18-FEB-10 17:11	100218-3
	Manganese	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	18-FEB-10 17:11	100218-3
	Thallium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	18-FEB-10 17:11	100218-3
	Uranium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	18-FEB-10 19:48	100218-6
CCV02	Aluminum	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Arsenic	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Calcium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Copper	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Iron	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Nickel	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	12-FEB-10 10:14	021210-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Selenium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Sodium	10400	ug/L	10000	ug/L	104.5	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Vanadium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Zinc	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	12-FEB-10 10:14	021210-1
	Mercury	5.12	ug/L	5	ug/L	102.3	80.0 – 120.0	AV	15-FEB-10 10:04	021510W1-7
	Antimony	53.4	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	18-FEB-10 06:14	100217-2
	Cadmium	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	18-FEB-10 06:14	100217-2
	Beryllium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	18-FEB-10 17:38	100218-3
	Lead	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	18-FEB-10 17:38	100218-3
	Manganese	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	18-FEB-10 17:38	100218-3
	Thallium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	18-FEB-10 17:38	100218-3
	Uranium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	18-FEB-10 20:10	100218-6
CCV03	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Arsenic	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Barium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Calcium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Chromium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Cobalt	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Iron	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Magnesium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Nickel	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Potassium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Selenium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Vanadium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	12-FEB-10 11:35	021210-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	15-FEB-10 10:28	021510W1-7
	Antimony	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	18-FEB-10 07:09	100217-2
	Cadmium	52.1	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	18-FEB-10 07:09	100217-2
	Beryllium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	18-FEB-10 18:09	100218-3
	Lead	51.6	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	18-FEB-10 18:09	100218-3
	Manganese	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	18-FEB-10 18:09	100218-3
	Thallium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	18-FEB-10 18:09	100218-3
CCV04	Aluminum	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Arsenic	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Calcium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Chromium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Cobalt	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Iron	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Nickel	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Potassium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Selenium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Sodium	10200	ug/L	10000	ug/L	101.9	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Mercury	5.1	ug/L	5	ug/L	102.1	80.0 – 120.0	AV	15-FEB-10 10:51	021510W1-7
	Antimony	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	18-FEB-10 08:12	100217-2
	Cadmium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	18-FEB-10 08:12	100217-2
	Beryllium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	18-FEB-10 18:27	100218-3
	Lead	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	18-FEB-10 18:27	100218-3

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Manganese	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	18-FEB-10 18:27	100218-3
	Thallium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	18-FEB-10 18:27	100218-3
CCV05										
	Aluminum	5030	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Arsenic	490	ug/L	500	ug/L	98	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Barium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Chromium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Copper	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Magnesium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Nickel	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Potassium	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Selenium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Vanadium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Zinc	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	12-FEB-10 13:32	021210-1
	Mercury	5.1	ug/L	5	ug/L	102	80.0 – 120.0	AV	15-FEB-10 11:15	021510W1-7
	Antimony	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	18-FEB-10 09:28	100217-2
	Cadmium	53.1	ug/L	50	ug/L	106.2	90.0 – 110.0	MS	18-FEB-10 09:28	100217-2
CCV06										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Arsenic	490	ug/L	500	ug/L	98	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Barium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Cobalt	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	12-FEB-10 13:59	021210-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Nickel	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Selenium	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Silver	495	ug/L	500	ug/L	99	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Vanadium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Zinc	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	12-FEB-10 13:59	021210-1
	Mercury	5.2	ug/L	5	ug/L	103.9	80.0 – 120.0	AV	15-FEB-10 11:39	021510W1-7
CCV07	Aluminum	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Arsenic	475	ug/L	500	ug/L	95	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Barium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Calcium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Chromium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Cobalt	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Copper	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Iron	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Magnesium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Nickel	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Potassium	4780	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Selenium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Silver	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Sodium	9680	ug/L	10000	ug/L	96.8	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Vanadium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
	Zinc	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	12-FEB-10 15:21	021210-1
CCV08	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Arsenic	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	12-FEB-10 16:43	021210-1

**METALS**  
**--2a--**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Barium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Cobalt	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Copper	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Magnesium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Nickel	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Potassium	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Selenium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Silver	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Sodium	10500	ug/L	10000	ug/L	104.8	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Vanadium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	12-FEB-10 16:43	021210-1
CCV09	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Arsenic	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Barium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Chromium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Cobalt	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Copper	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Magnesium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Nickel	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Potassium	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Selenium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Silver	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Sodium	11000	ug/L	10000	ug/L	109.9	90.0 – 110.0	P	12-FEB-10 17:59	021210-1
	Vanadium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	12-FEB-10 17:59	021210-1

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**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

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<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Zinc	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	12-FEB-10 17:59	021210-1



**METALS**  
**-2b-**  
**CRDL Standard for AA & ICP**

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.197	ug/L	.2	ug/L	98.4	70.0 – 130.0	AV	15-FEB-10 09:38	021510W1-7
	Antimony	3.27	ug/L	3	ug/L	108.9	70.0 – 130.0	MS	18-FEB-10 05:37	100217-2
	Cadmium	1.11	ug/L	1	ug/L	110.9	70.0 – 130.0	MS	18-FEB-10 05:37	100217-2
	Lead	2.37	ug/L	2	ug/L	118.6	70.0 – 130.0	MS	18-FEB-10 17:03	100218-3
	Manganese	5.89	ug/L	5	ug/L	117.7	70.0 – 130.0	MS	18-FEB-10 17:03	100218-3
	Thallium	1.23	ug/L	1	ug/L	122.6	70.0 – 130.0	MS	18-FEB-10 17:03	100218-3
	Beryllium	.528	ug/L	.5	ug/L	105.6	70.0 – 130.0	MS	18-FEB-10 17:03	100218-3
	Uranium	.235	ug/L	.2	ug/L	117.5	70.0 – 130.0	MS	18-FEB-10 19:41	100218-6
PQL01										
	Copper	10.1	ug/L	10	ug/L	100.5	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Cobalt	4.96	ug/L	5	ug/L	99.2	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Chromium	5.37	ug/L	5	ug/L	107.4	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Barium	5.15	ug/L	5	ug/L	102.9	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Arsenic	29.1	ug/L	30	ug/L	97	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Sodium	300	ug/L	300	ug/L	100.1	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Silver	4.86	ug/L	5	ug/L	97.3	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Potassium	171	ug/L	150	ug/L	113.8	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Nickel	5.61	ug/L	5	ug/L	112.3	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Vanadium	4.84	ug/L	5	ug/L	96.7	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Zinc	9.94	ug/L	10	ug/L	99.4	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Aluminum	193	ug/L	200	ug/L	96.5	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Magnesium	289	ug/L	300	ug/L	96.3	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Iron	92.2	ug/L	100	ug/L	92.2	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Calcium	209	ug/L	200	ug/L	104.3	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Selenium	30.8	ug/L	30	ug/L	102.7	70.0 – 130.0	P	12-FEB-10 09:16	021210-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
<b>ICB01</b>										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 09:09	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 09:09	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 09:09	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 09:09	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 09:09	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 09:09	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 09:09	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 09:09	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 09:09	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 09:09	021210-1
	Mercury	0.066	+/-0.2	U	0.066	0.2	LIQ	AV	15-FEB-10 09:36	021510W1-7
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-FEB-10 05:31	100217-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	18-FEB-10 05:31	100217-2
	Beryllium	0.1	+/-0.5	U	0.1	0.5	LIQ	MS	18-FEB-10 17:01	100218-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	18-FEB-10 17:01	100218-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	18-FEB-10 17:01	100218-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	18-FEB-10 17:01	100218-3
	Uranium	0.05	+/-0.2	U	0.05	0.2	LIQ	MS	18-FEB-10 19:39	100218-6
<b>CCB01</b>										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 09:55	021210-1
	Arsenic	9.62	+/-30	J	5.0	30.0	LIQ	P	12-FEB-10 09:55	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:55	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 09:55	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:55	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:55	021210-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 09:55	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 09:55	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 09:55	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 09:55	021210-1
	Potassium	67.59	+/-150	J	50.0	150	LIQ	P	12-FEB-10 09:55	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 09:55	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:55	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 09:55	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:55	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 09:55	021210-1
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	15-FEB-10 09:42	021510W1-7
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-FEB-10 06:02	100217-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	18-FEB-10 06:02	100217-2
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	18-FEB-10 17:14	100218-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	18-FEB-10 17:14	100218-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	18-FEB-10 17:14	100218-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	18-FEB-10 17:14	100218-3
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	18-FEB-10 19:50	100218-6
<b>CCB02</b>	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 10:21	021210-1
	Arsenic	5.25	+/-30	J	5.0	30.0	LIQ	P	12-FEB-10 10:21	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 10:21	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 10:21	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 10:21	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 10:21	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 10:21	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 10:21	021210-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ng/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 10:21	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 10:21	021210-1
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	15-FEB-10 10:06	021510W1-7
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-FEB-10 06:20	100217-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	18-FEB-10 06:20	100217-2
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	18-FEB-10 17:41	100218-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	18-FEB-10 17:41	100218-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	18-FEB-10 17:41	100218-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	18-FEB-10 17:41	100218-3
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	18-FEB-10 20:12	100218-6
<b>CCB03</b>	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 11:43	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 11:43	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 11:43	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 11:43	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 11:43	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 11:43	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 11:43	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 11:43	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 11:43	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 11:43	021210-1
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	15-FEB-10 10:30	021510W1-7
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-FEB-10 07:15	100217-2

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ng/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB04	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	18-FEB-10 07:15	100217-2
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	18-FEB-10 18:12	100218-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	18-FEB-10 18:12	100218-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	18-FEB-10 18:12	100218-3
	Thallium	0.388	+/-1	J	0.3	1.0	LIQ	MS	18-FEB-10 18:12	100218-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 12:45	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 12:45	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 12:45	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 12:45	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 12:45	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 12:45	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 12:45	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 12:45	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 12:45	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 12:45	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 12:45	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 12:45	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 12:45	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 12:45	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 12:45	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 12:45	021210-1
CCB05	Mercury	-0.097	+/-2	J	0.066	0.2	LIQ	AV	15-FEB-10 10:53	021510W1-7
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-FEB-10 08:18	100217-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	18-FEB-10 08:18	100217-2
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	18-FEB-10 18:30	100218-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	18-FEB-10 18:30	100218-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	18-FEB-10 18:30	100218-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	18-FEB-10 18:30	100218-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 13:39	021210-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ng/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 13:39	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 13:39	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 13:39	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 13:39	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 13:39	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 13:39	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 13:39	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 13:39	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 13:39	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 13:39	021210-1
	Selenium	5.81	+/-30	J	5.0	30.0	LIQ	P	12-FEB-10 13:39	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 13:39	021210-1
	Sodium	149.21	+/-300	J	100	300	LIQ	P	12-FEB-10 13:39	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 13:39	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 13:39	021210-1
	Mercury	-0.108	+/-2	J	0.066	0.2	LIQ	AV	15-FEB-10 11:17	021510W1-7
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-FEB-10 09:34	100217-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	18-FEB-10 09:34	100217-2
<b>CCB06</b>	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 14:06	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 14:06	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 14:06	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 14:06	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 14:06	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 14:06	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 14:06	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 14:06	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 14:06	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 14:06	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 14:06	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 14:06	021210-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB07	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 14:06	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 14:06	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 14:06	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 14:06	021210-1
	Mercury	-0.096	+/-2	J	0.066	0.2	LIQ	AV	15-FEB-10 11:41	021510W1-7
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 15:28	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 15:28	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 15:28	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 15:28	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 15:28	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 15:28	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 15:28	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 15:28	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 15:28	021210-1
CCB08	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 15:28	021210-1
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 16:50	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 16:50	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 16:50	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 16:50	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 16:50	021210-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 16:50	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 16:50	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 16:50	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Sodium	130.12	+/-300	J	100	300	LIQ	P	12-FEB-10 16:50	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 16:50	021210-1
CCB09	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 18:06	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 18:06	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 18:06	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 18:06	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 18:06	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 18:06	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 18:06	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 18:06	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Sodium	175.6	+/-300	J	100	300	LIQ	P	12-FEB-10 18:06	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 18:06	021210-1



**METALS**  
**-3b-**  
**PREPARATION BLANK SUMMARY**

SDG NO. 10-1433-1

Contract: LANL01004

Matrix: WATER

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M</u>	<u>MDL</u>	<u>RDL</u>
1202029965	Mercury	-0.115	ug/L	+/-0.2	J	AV	0.066	0.2
1202030862	Magnesium	85	ug/L	+/-300	U	P	85	300
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Potassium	50	ug/L	+/-150	U	P	50	150
	Sodium	150	ug/L	+/-300	J	P	100	300
	Silver	1	ug/L	+/-5	U	P	1	5
	Selenium	5	ug/L	+/-30	U	P	5	30
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
	Iron	30	ug/L	+/-100	U	P	30	100
	Copper	3	ug/L	+/-10	U	P	3	10
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Chromium	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
	Barium	1	ug/L	+/-5	U	P	1	5
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Aluminum	68	ug/L	+/-200	U	P	68	200
1202030875	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Antimony	1	ug/L	+/-3	U	MS	1	3
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/-0.2	U	MS	0.05	0.2

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
<b>ICSA01</b>									
	Aluminum	526000	ug/L	500000	ug/L	105	80.0 - 120.0	12-FEB-10 09:23	021210-1
	Arsenic	11.9	ug/L					12-FEB-10 09:23	021210-1
	Barium	-0.241	ug/L					12-FEB-10 09:23	021210-1
	Calcium	488000	ug/L	500000	ug/L	97.5	80.0 - 120.0	12-FEB-10 09:23	021210-1
	Chromium	1.19	ug/L					12-FEB-10 09:23	021210-1
	Cobalt	-1.55	ug/L					12-FEB-10 09:23	021210-1
	Copper	1.55	ug/L					12-FEB-10 09:23	021210-1
	Iron	191000	ug/L	200000	ug/L	95.6	80.0 - 120.0	12-FEB-10 09:23	021210-1
	Magnesium	493000	ug/L	500000	ug/L	98.6	80.0 - 120.0	12-FEB-10 09:23	021210-1
	Nickel	4.65	ug/L					12-FEB-10 09:23	021210-1
	Potassium	-183.0	ug/L					12-FEB-10 09:23	021210-1
	Selenium	-19.3	ug/L					12-FEB-10 09:23	021210-1
	Silver	4.21	ug/L					12-FEB-10 09:23	021210-1
	Sodium	31.5	ug/L					12-FEB-10 09:23	021210-1
	Vanadium	-2.45	ug/L					12-FEB-10 09:23	021210-1
	Zinc	-3.33	ug/L					12-FEB-10 09:23	021210-1
<b>ICSAB01</b>									
	Aluminum	526000	ug/L	500000	ug/L	105	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Arsenic	511	ug/L	500	ug/L	102	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Barium	483	ug/L	500	ug/L	96.6	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Chromium	483	ug/L	500	ug/L	96.6	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Cobalt	432	ug/L	500	ug/L	86.5	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Copper	537	ug/L	500	ug/L	107	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Iron	190000	ug/L	200000	ug/L	95	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Magnesium	490000	ug/L	500000	ug/L	98	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Nickel	447	ug/L	500	ug/L	89.4	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Potassium	5130	ug/L	5000	ug/L	103	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Selenium	2460	ug/L	2500	ug/L	98.3	80.0 - 120.0	12-FEB-10 09:29	021210-1

## METALS

-4-

## Interference Check Sample

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

ICS:

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Silver	273	ug/L	250	ug/L	109	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Sodium	5750	ug/L	5000	ug/L	115	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Vanadium	502	ug/L	500	ug/L	100	80.0 - 120.0	12-FEB-10 09:29	021210-1
	Zinc	480	ug/L	500	ug/L	96	80.0 - 120.0	12-FEB-10 09:29	021210-1

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Antimony	0.16	ug/L					18-FEB-10 05:43	100217-2
	Cadmium	0.519	ug/L					18-FEB-10 05:43	100217-2
ICSAB01	Antimony	21.3	ug/L	20	ug/L	107	80.0 - 120.0	18-FEB-10 05:49	100217-2
	Cadmium	20.1	ug/L	20.44	ug/L	98.2	80.0 - 120.0	18-FEB-10 05:49	100217-2

METALS  
-4-  
Interference Check Sample

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Beryllium	0.125	ug/L					18-FEB-10 17:06	100218-3
	Lead	0.236	ug/L					18-FEB-10 17:06	100218-3
	Manganese	6.04	ug/L					18-FEB-10 17:06	100218-3
	Thallium	0.043	ug/L					18-FEB-10 17:06	100218-3
ICSAB01									
	Beryllium	19.9	ug/L	20	ug/L	99.6	80.0 - 120.0	18-FEB-10 17:09	100218-3
	Lead	22.0	ug/L	20.19	ug/L	109	80.0 - 120.0	18-FEB-10 17:09	100218-3
	Manganese	28.3	ug/L	25.8	ug/L	110	80.0 - 120.0	18-FEB-10 17:09	100218-3
	Thallium	21.6	ug/L	20	ug/L	108	80.0 - 120.0	18-FEB-10 17:09	100218-3

METALS  
-4-  
Interference Check Sample

SDG No: 10-1433-1

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

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<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Uranium	-0.008	ug/L					18-FEB-10 19:43	100218-6
ICSAB01	Uranium	21.4	ug/L	20	ug/L	107	80.0 - 120.0	18-FEB-10 19:46	100218-6

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1433-1 Client ID RE15-10-8081S

Contract: LANL01004 Level: Low

Matrix: WATER % Solids:

Sample ID: 245807001 Spike ID: 1202029968

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M</u>
Mercury	ug/L	75-125	2.11		0.066	U	2	106		AV

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1433-1 Client ID RE15-10-8080S

Contract: LANL01004 Level: Low

Matrix: WATER % Solids:

Sample ID: 245690001 Spike ID: 1202030865

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	5020		68	U	5000	99.9		P
Arsenic	ug/L	75-125	487		5	U	500	96.7		P
Barium	ug/L	75-125	502		1	U	500	100		P
Calcium	ug/L	75-125	5050		50	U	5000	100		P
Chromium	ug/L	75-125	489		1	U	500	97.7		P
Cobalt	ug/L	75-125	484		1	U	500	96.8		P
Copper	ug/L	75-125	502		3	U	500	100		P
Iron	ug/L	75-125	5210		30	U	5000	104		P
Magnesium	ug/L	75-125	5150		106	J	5000	101		P
Nickel	ug/L	75-125	489		1.5	U	500	97.7		P
Potassium	ug/L	75-125	5170		128	J	5000	101		P
Selenium	ug/L	75-125	495		5	U	500	98.4		P
Silver	ug/L	75-125	495		1	U	500	99		P
Sodium	ug/L	75-125	5760		255	J	5000	110		P
Vanadium	ug/L	75-125	502		1.06	J	500	100		P
Zinc	ug/L	75-125	476		3.3	U	500	94.8		P



## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1433-1 Client ID RE15-10-8080S

Contract: LANL01004 Level: Low

Matrix: WATER % Solids:

Sample ID: 245690001 Spike ID: 1202030878

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	ug/L	75-125	46.9		0.1	U	50	93.7		MS
Cadmium	ug/L	75-125	11		0.11	U	10	110		MS
Lead	ug/L	75-125	46.3		0.5	U	40	116		MS
Manganese	ug/L	75-125	53.7		1.11	J	50	105		MS
Thallium	ug/L	75-125	92		0.3	U	100	91.7		MS
Uranium	ug/L	75-125	58.1		0.05	U	50	116		MS
Antimony	ug/L	75-125	212		1	U	200	106		MS

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE15-10-8081D

Sample ID: 245807001

Duplicate ID: 1202029967

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066 U		0.066 U				AV

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE15-10-8080D

Sample ID: 245690001

Duplicate ID: 1202030864

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68 U		68 U				P
Arsenic	ug/L		5 U		5 U				P
Barium	ug/L		1 U		1 U				P
Calcium	ug/L		50 U		50 U				P
Chromium	ug/L		1 U		1 U				P
Cobalt	ug/L		1 U		1 U				P
Copper	ug/L		3 U		3 U				P
Iron	ug/L		30 U		30 U				P
Magnesium	ug/L		106 J		85 U		200		P
Nickel	ug/L		1.5 U		1.5 U				P
Potassium	ug/L	+/-150	128 J		144 J		11.7		P
Selenium	ug/L		5 U		5 U				P
Silver	ug/L		1 U		1 U				P
Sodium	ug/L	+/-300	255 J		238 J		6.73		P
Vanadium	ug/L	+/-5	1.06 J		1.19 J		11.1		P
Zinc	ug/L		3.3 U		3.3 U				P

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE15-10-8080D

Sample ID: 245690001

Duplicate ID: 1202030877

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1 U		1 U				MS
Beryllium	ug/L		0.1 U		0.1 U				MS
Cadmium	ug/L		0.11 U		0.11 U				MS
Lead	ug/L		0.5 U		0.5 U				MS
Manganese	ug/L	+/-5	1.11 J		1.02 J		8.65		MS
Thallium	ug/L		0.3 U		0.3 U				MS
Uranium	ug/L		0.05 U		0.05 U				MS

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1433-1

Contract: LANL01004

Aqueous LCS Source:GEL

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202029966	Mercury	ug/L	2	2.04		102	80-120	AV

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1433-1

Contract: LANL01004

Aqueous LCS Source: OS21

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202030863								
	Aluminum	ug/L	5000	4920		98.4	80-120	P
	Arsenic	ug/L	500	482		96.5	80-120	P
	Barium	ug/L	500	497		99.3	80-120	P
	Calcium	ug/L	5000	4950		98.9	80-120	P
	Chromium	ug/L	500	485		96.9	80-120	P
	Cobalt	ug/L	500	480		96.1	80-120	P
	Copper	ug/L	500	497		99.4	80-120	P
	Iron	ug/L	5000	5100		102	80-120	P
	Magnesium	ug/L	5000	5050		101	80-120	P
	Nickel	ug/L	500	486		97.2	80-120	P
	Potassium	ug/L	5000	4880		97.7	80-120	P
	Selenium	ug/L	500	495		99	80-120	P
	Silver	ug/L	500	491		98.2	80-120	P
	Sodium	ug/L	5000	5560		111	80-120	P
	Vanadium	ug/L	500	497		99.3	80-120	P
	Zinc	ug/L	500	474		94.8	80-120	P

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1433-1

Contract: LANL01004

Aqueous LCS Source: O2si

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202030876	Antimony	ug/L	50	54.6		109	80-120	MS
	Beryllium	ug/L	50	46.3		92.6	80-120	MS
	Cadmium	ug/L	50	51.3		103	80-120	MS
	Lead	ug/L	50	55.2		110	80-120	MS
	Manganese	ug/L	50	52.5		105	80-120	MS
	Thallium	ug/L	50	51		102	80-120	MS
	Uranium	ug/L	50	58.6		117	80-120	MS

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1433-1 Client ID RE15-10-8081L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 245807001 Serial Dilution ID: 1202029969

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Mercury	.066	U	.33	U				AV



## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1433-1 Client ID RE15-10-8080L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 245690001 Serial Dilution ID: 1202030866

<u>Analyte</u>	<u>Initial Value ng/L</u>	<u>C</u>	<u>Serial Value ng/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	106	J	425	U	100			P
Nickel	1.5	U	7.5	U				P
Potassium	128	J	250	U	100			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	255	J	765	J	200			P
Vanadium	1.06	J	5	U	100			P
Zinc	3.3	U	16.5	U				P

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1433-1 Client ID RE15-10-8080L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 245690001 Serial Dilution ID: 1202030879

Analyte	<u>Initial Value ng/L</u>	<u>C</u>	<u>Serial Value ng/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1.11	J	5	U	100			MS
Thallium	.3	U	12.3					MS
Uranium	.05	U	.25	U				MS

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METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1433-1

Method Type: P

Contract: LANL01004

Lab Code: GEL

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<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 948036							
1202030862	MB for batch 948036	MB	W	07-FEB-10	50mL	50mL	
1202030863	LCS for batch 948036	LCS	W	07-FEB-10	50mL	50mL	
1202030865	RE15-10-8080S	MS	W	07-FEB-10	50mL	50mL	
1202030864	RE15-10-8080D	DUP	W	07-FEB-10	50mL	50mL	
245690001	RE15-10-8080	SAMPLE	W	07-FEB-10	50mL	50mL	
245690002	RE15-10-8079	SAMPLE	W	07-FEB-10	50mL	50mL	

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SW846

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1433-1

Method Type: MS

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number	948039						
1202030875	MB for batch 948039	MB	W	07-FEB-10	50mL	50mL	
1202030876	LCS for batch 948039	LCS	W	07-FEB-10	50mL	50mL	
1202030878	RE15-10-8080S	MS	W	07-FEB-10	50mL	50mL	
1202030877	RE15-10-8080D	DUP	W	07-FEB-10	50mL	50mL	
245690001	RE15-10-8080	SAMPLE	W	07-FEB-10	50mL	50mL	
245690002	RE15-10-8079	SAMPLE	W	07-FEB-10	50mL	50mL	

SW846

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METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1433-1

Method Type: AV

Contract: LANL01004

Lab Code: GEL

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<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 947645							
1202029965	MB for batch 947645	MB	W	12-FEB-10	20mL	20mL	
1202029966	LCS for batch 947645	LCS	W	12-FEB-10	20mL	20mL	
1202029968	RE15-10-8081S	MS	W	12-FEB-10	20mL	20mL	
1202029967	RE15-10-8081D	DUP	W	12-FEB-10	20mL	20mL	
245690001	RE15-10-8080	SAMPLE	W	12-FEB-10	20mL	20mL	
245690002	RE15-10-8079	SAMPLE	W	12-FEB-10	20mL	20mL	

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SW846

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 18-FEB-10

End Date: 18-FEB-10

Client Sdg: 10-1433-1

Method MS

Data File: 100217-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	05:07		X				X																		
S10	1	05:13		X				X																		
S100	1	05:19		X				X																		
ICV01	1	05:25		X				X																		
ICB01	1	05:31		X				X																		
CRDL01	1	05:37		X				X																		
ICSA01	1	05:43		X				X																		
ICSAB01	1	05:49		X				X																		
CCV01	1	05:56		X				X																		
CCB01	1	06:02		X				X																		
LR01	1	06:08		X				X																		
CCV02	1	06:14		X				X																		
CCB02	1	06:20		X				X																		
ZZZZZZ	1	06:26																								
ZZZZZZ	1	06:32																								
ZZZZZZ	1	06:38																								
ZZZZZZ	1	06:45																								
ZZZZZZ	1	06:51																								
ZZZZZZ	5	06:57																								
ZZZZZZ	1	07:03																								
CCV03	1	07:09		X				X																		
CCB03	1	07:15		X				X																		
ZZZZZZ	1	07:21																								
ZZZZZZ	1	07:27																								
ZZZZZZ	1	07:34																								
ZZZZZZ	1	07:41																								
ZZZZZZ	1	07:47																								
ZZZZZZ	1	07:53																								
ZZZZZZ	5	07:59																								
ZZZZZZ	1	08:06																								
CCV04	1	08:12		X				X																		
CCB04	1	08:18		X				X																		
ZZZZZZ	1	08:25																								
1202030875	1	08:32		X				X																		
1202030876	1	08:38		X				X																		
ZZZZZZ	1	08:44																								
245690001	1	08:51		X				X																		
1202030877	1	08:57		X				X																		
1202030878	1	09:03		X				X																		
1202030879	5	09:09		X				X																		

Samp No.	D/F	Run Time								
245690002	1	09:16	X	X						
ZZZZZZ	1	09:22								
CCV05	1	09:28	X	X						
CCB05	1	09:34	X	X						

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 18-FEB-10

End Date: 18-FEB-10

Client Sdg: 10-1433-1

Method MS

Data File: 100218-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	16:50					X							X	X								X			
S10	1	16:53					X							X	X								X			
S100	1	16:55					X							X	X								X			
ICV01	1	16:58					X							X	X								X			
ICB01	1	17:01					X							X	X								X			
CRDL01	1	17:03					X							X	X								X			
ICSA01	1	17:06					X							X	X								X			
ICSAB01	1	17:09					X							X	X								X			
CCV01	1	17:11					X							X	X								X			
CCB01	1	17:14					X							X	X								X			
ZZZZZZ	1	17:17																								
ZZZZZZ	1	17:19																								
ZZZZZZ	1	17:22																								
ZZZZZZ	1	17:25																								
ZZZZZZ	1	17:27																								
ZZZZZZ	5	17:30																								
ZZZZZZ	1	17:33																								
ZZZZZZ	1	17:36																								
CCV02	1	17:38					X							X	X								X			
CCB02	1	17:41					X							X	X								X			
1202030875	1	17:44					X							X	X								X			
1202030876	1	17:47					X							X	X								X			
ZZZZZZ	1	17:50																								
245690001	1	17:53					X							X	X								X			
1202030877	1	17:56					X							X	X								X			
1202030878	1	17:58					X							X	X								X			
1202030879	5	18:01					X							X	X								X			
ZZZZZZ	1	18:04																								
ZZZZZZ	1	18:07																								
CCV03	1	18:09					X							X	X								X			
CCB03	1	18:12					X							X	X								X			
245690002	1	18:15					X							X	X								X			
ZZZZZZ	5	18:18																								
ZZZZZZ	10	18:21																								
ZZZZZZ	100	18:24																								
CCV04	1	18:27					X							X	X								X			
CCB04	1	18:30					X							X	X								X			



Metals  
-14-  
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 18-FEB-10

End Date: 18-FEB-10

Client Sdg: 10-1433-1

Method MS

Data File: 100218-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	19:30																						X		
S10	1	19:32																						X		
S100	1	19:35																						X		
ICV01	1	19:37																						X		
ICB01	1	19:39																						X		
CRDL01	1	19:41																						X		
ICSA01	1	19:43																						X		
ICSAB01	1	19:46																						X		
CCV01	1	19:48																						X		
CCB01	1	19:50																						X		
1202030875	1	19:52																						X		
1202030876	1	19:54																						X		
245690001	1	19:57																						X		
1202030877	1	19:59																						X		
1202030878	1	20:01																						X		
1202030879	5	20:03																						X		
245690002	1	20:06																						X		
ZZZZZZ	1	20:08																								
CCV02	1	20:10																						X		
CCB02	1	20:12																						X		

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA3

Start Date: 12-FEB-10

End Date: 12-FEB-10

Client Sdg: 10-1433-1

Method P

Data File: 021210-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	08:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	08:37			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	08:43	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	08:50	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	08:57	X						X				X		X							X				
ICV01	1	09:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	09:09	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	09:16	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	09:23	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	09:29	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	09:35	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	09:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV01	1	09:48	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	09:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR03	1	10:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV02	1	10:14	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	10:21	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	10:28																								
ZZZZZZ	1	10:34																								
ZZZZZZ	1	10:41																								
ZZZZZZ	1	10:48																								
ZZZZZZ	1	10:55																								
ZZZZZZ	1	11:02																								
ZZZZZZ	1	11:08																								
ZZZZZZ	1	11:15																								
ZZZZZZ	1	11:22																								
ZZZZZZ	1	11:29																								
CCV03	1	11:35	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	11:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	11:49																								
ZZZZZZ	1	11:56																								
ZZZZZZ	1	12:03																								
ZZZZZZ	1	12:10																								
ZZZZZZ	1	12:17																								
ZZZZZZ	1	12:24																								
ZZZZZZ	5	12:31																								
CCV04	1	12:38	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB04	1	12:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	12:51																								
ZZZZZZ	5	12:58																								

**Metals**  
**-14-**  
**Analysis Run Log**

[illegible]

**Metals**  
**-14-**  
**Analysis Run Log**

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	10	17:52																								
CCV09	1	17:59	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB09	1	18:06	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals  
-14-  
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: MER536

Start Date: 15-FEB-10

End Date: 15-FEB-10

Client Sdg: 10-1433-1

Method AV

Data File: 021510W1-7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:22															X									
S0.2	1	09:24															X									
S0.5	1	09:26															X									
S2.0	1	09:28															X									
S5.0	1	09:30															X									
S10	1	09:32															X									
ICV01	1	09:34															X									
ICB01	1	09:36															X									
CRDL01	1	09:38															X									
CCV01	1	09:40															X									
CCB01	1	09:42															X									
ZZZZZZ	1	09:44																								
ZZZZZZ	1	09:46																								
ZZZZZZ	1	09:48																								
ZZZZZZ	1	09:50																								
ZZZZZZ	1	09:52																								
ZZZZZZ	1	09:54																								
ZZZZZZ	1	09:56																								
ZZZZZZ	1	09:58																								
ZZZZZZ	1	10:00																								
ZZZZZZ	5	10:02																								
CCV02	1	10:04															X									
CCB02	1	10:06															X									
ZZZZZZ	1	10:08																								
ZZZZZZ	1	10:10																								
ZZZZZZ	1	10:12																								
ZZZZZZ	1	10:14																								
ZZZZZZ	1	10:16																								
ZZZZZZ	1	10:18																								
ZZZZZZ	1	10:20																								
ZZZZZZ	1	10:22																								
ZZZZZZ	1	10:24																								
ZZZZZZ	1	10:26																								
CCV03	1	10:28															X									
CCB03	1	10:30															X									
ZZZZZZ	5	10:32																								
ZZZZZZ	1	10:34																								
ZZZZZZ	1	10:36																								
ZZZZZZ	1	10:37																								
ZZZZZZ	1	10:39																								

Samp No.	D/F	Run Time
ZZZZZZ	1	10:41
ZZZZZZ	1	10:43
ZZZZZZ	1	10:45
ZZZZZZ	1	10:47
ZZZZZZ	5	10:49
CCV04	1	10:51
CCB04	1	10:53
ZZZZZZ	1	10:55
ZZZZZZ	1	10:57
ZZZZZZ	1	10:59
1202029965	1	11:01
1202029966	1	11:03
ZZZZZZ	1	11:05
ZZZZZZ	1	11:07
245690001	1	11:09
245690002	1	11:11
ZZZZZZ	1	11:13
CCV05	1	11:15
CCB05	1	11:17
1202029967	1	11:19
1202029968	1	11:21
1202029969	5	11:23
ZZZZZZ	1	11:25
ZZZZZZ	1	11:27
ZZZZZZ	1	11:29
ZZZZZZ	1	11:31
ZZZZZZ	1	11:33
ZZZZZZ	1	11:35
ZZZZZZ	1	11:37
CCV06	1	11:39
CCB06	1	11:41

# Standards

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METALS  
-10-  
Instrument Detection Limits

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SDG NO. 10-1433-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

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ICP/MS	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

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METALS  
-10-  
Instrument Detection Limits

SDG NO. 10-1433-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

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	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u> <u>ug/L</u>	<u>RDL</u> <u>ug/L</u>
MERCURY				
LIQUID	Mercury		0.066	.2

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**METALS**  
**-10-**  
**Instrument Detection Limits**

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SDG NO. 10-1433-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

---

ICP	<u>Analyte</u>	<u>Wavelength</u> (nm)	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-1433-1**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1433-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Boron	Cadmium	Chromium	Cobalt	Copper
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-1433-1**Contract: LANL01004Instrument: OPTIMA3Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interement Correction Factors**

Lab Code: GELGEL Job No: **10-1433-1**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-FEB-10**

Interement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1433-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1433-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000



**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-1433-1

Contract: LANL01004

Lab Code: GEL

Instrument ID ICPMS5

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

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METALS  
-12-  
Linear Ranges

SDG NO. 10-1433-1

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA3

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<u>Analyte</u>	<u>Integration Time (sec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

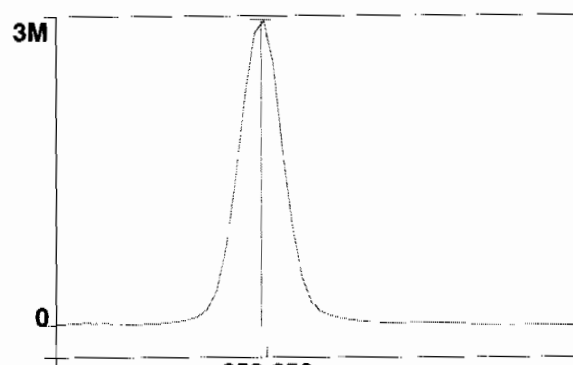
# Raw Data

Method: Hg\_ReAlign  
Result: 022310

Sample ID: Hg\_ReAlign

Hg 253.652

Rep: 1



1

2/12/2010 08:27:36 Hg ReAlign... Actual peak offset (nm): -0.009  
Drift (nm): 0.000 Slit adjustment: -3

## Analysis Begun

Start Time: 2/12/2010 08:30:31

Plasma On Time: 2/12/2010 07:08:18

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601 Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021210.sif

Batch ID:

Results Data Set: 021210

Results Library: C:\pe\Optima3\Results\Results.mdb

## Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 2/11/2010 10:02:25

IEC File: 011110.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 2/12/2010 08:30:33

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: S0

Net

Corrected

Calib.

Analysis

Repl#	Analyte	Intensity	Intensity	Conc. Units	Time
1	Sc Radial	4949.6	4949.6	101 %	08:32:26
1	Y RADIAL	5232.2	5232.2	100.9 %	08:32:26
1	Al 396.153Radial†	-167.5	-166.6	[0.00] ug/L	08:32:26
1	Ca 317.933Radial†	15.2	15.2	[0.00] ug/L	08:32:46
1	Fe 238.204 Radial†	10.3	10.2	[0.00] ug/L	08:32:46
1	K 766.490 Radial†	2949.4	2933.6	[0.00] ug/L	08:32:26
1	Mg 279.077 IEC†	2.6	2.5	[0.00] ug/L	08:32:46
1	Na 589.592 Radial†	-1138.3	-1132.2	[0.00] ug/L	08:32:26
1	Sr 421.552†	26.0	25.9	[0.00] ug/L	08:32:26
1	Sc 361.383	824519.0	824519.0	99.715 %	08:33:43
1	Y 371.029	664311.9	664311.9	99.536 %	08:33:43
1	Ag 328.068†	291.8	292.6	[0.00] ug/L	08:33:43
1	As 188.979†	-34.4	-34.5	[0.00] ug/L	08:34:03
1	B 249.677†	-606.3	-608.0	[0.00] ug/L	08:34:03
1	Ba 233.527†	-6.8	-6.9	[0.00] ug/L	08:34:03
1	Be 313.107†	-3673.3	-3683.8	[0.00] ug/L	08:33:43
1	Cd 226.502†	-218.8	-219.4	[0.00] ug/L	08:34:03
1	Co 228.616†	-79.9	-80.1	[0.00] ug/L	08:34:03
1	Cr 267.716†	57.8	58.0	[0.00] ug/L	08:34:03
1	Cu 324.752†	4709.3	4722.8	[0.00] ug/L	08:33:43
1	Mn 257.610†	457.6	458.9	[0.00] ug/L	08:34:03
1	Mo 202.031†	7.6	7.7	[0.00] ug/L	08:34:03
1	Ni 231.604†	80.4	80.6	[0.00] ug/L	08:34:03
1	P 214.914†	250.9	251.6	[0.00] ug/L	08:34:03
1	Pb 220.353†	-51.7	-51.8	[0.00] ug/L	08:34:03
1	S 181.975 Axial†	50.2	50.4	[0.00] ug/L	08:34:03
1	Sb 206.836†	37.0	37.1	[0.00] ug/L	08:34:03
1	Se 196.026†	-23.4	-23.5	[0.00] ug/L	08:34:03
1	Si 251.611†	515.8	517.2	[0.00] ug/L	08:34:03
1	Sn 189.927†	3.0	3.0	[0.00] ug/L	08:34:03
1	Ti 334.940†	-1561.8	-1566.3	[0.00] ug/L	08:33:43
1	Tl 190.801†	-37.3	-37.4	[0.00] ug/L	08:34:03
1	U 409.014†	-3600.5	-3610.7	[0.00] ug/L	08:33:43
1	V 292.402†	-1570.2	-1574.6	[0.00] ug/L	08:33:43
1	Zn 213.857†	734.4	736.5	[0.00] ug/L	08:34:03
1	SiO2†	497.1	498.5	[0.00] ug/L	08:34:59
2	Sc Radial	4929.1	4929.1	100 %	08:32:51
2	Y RADIAL	5185.7	5185.7	99.99 %	08:32:51
2	Al 396.153Radial†	-148.5	-148.3	[0.00] ug/L	08:32:51
2	Ca 317.933Radial†	18.2	18.2	[0.00] ug/L	08:33:11
2	Fe 238.204 Radial†	13.1	13.0	[0.00] ug/L	08:33:11
2	K 766.490 Radial†	2954.5	2950.9	[0.00] ug/L	08:32:51
2	Mg 279.077 IEC†	2.7	2.7	[0.00] ug/L	08:33:11
2	Na 589.592 Radial†	-1177.3	-1175.8	[0.00] ug/L	08:32:51
2	Sr 421.552†	-10.3	-10.3	[0.00] ug/L	08:32:51
2	Sc 361.383	833268.3	833268.3	100.77 %	08:34:08
2	Y 371.029	674252.3	674252.3	101.03 %	08:34:08
2	Ag 328.068†	269.6	267.5	[0.00] ug/L	08:34:08
2	As 188.979†	-31.0	-30.8	[0.00] ug/L	08:34:28
2	B 249.677†	-594.4	-589.9	[0.00] ug/L	08:34:28
2	Ba 233.527†	2.8	2.8	[0.00] ug/L	08:34:28
2	Be 313.107†	-3727.5	-3698.9	[0.00] ug/L	08:34:08
2	Cd 226.502†	-218.5	-216.8	[0.00] ug/L	08:34:28
2	Co 228.616†	-92.6	-91.9	[0.00] ug/L	08:34:28
2	Cr 267.716†	58.0	57.5	[0.00] ug/L	08:34:28
2	Cu 324.752†	4723.5	4687.2	[0.00] ug/L	08:34:08
2	Mn 257.610†	484.7	481.0	[0.00] ug/L	08:34:28
2	Mo 202.031†	13.3	13.2	[0.00] ug/L	08:34:28
2	Ni 231.604†	65.7	65.2	[0.00] ug/L	08:34:28
2	P 214.914†	241.2	239.4	[0.00] ug/L	08:34:28
2	Pb 220.353†	-61.6	-61.2	[0.00] ug/L	08:34:28
2	S 181.975 Axial†	47.4	47.0	[0.00] ug/L	08:34:28
2	Sb 206.836†	34.9	34.6	[0.00] ug/L	08:34:28
2	Se 196.026†	-28.9	-28.7	[0.00] ug/L	08:34:28
2	Si 251.611†	537.7	533.6	[0.00] ug/L	08:34:28
2	Sn 189.927†	23.3	23.1	[0.00] ug/L	08:34:28
2	Ti 334.940†	-1541.0	-1529.2	[0.00] ug/L	08:34:08
2	Tl 190.801†	-36.6	-36.3	[0.00] ug/L	08:34:28
2	U 409.014†	-3718.3	-3689.8	[0.00] ug/L	08:34:08
2	V 292.402†	-1655.4	-1642.7	[0.00] ug/L	08:34:08

2	Zn 213.857†	731.3	725.7	[0.00]	ug/L	08:34:28
2	SiO2†	546.0	541.8	[0.00]	ug/L	08:35:04
3	Sc Radial	4890.5	4890.5	99.3	%	08:33:16
3	Y RADIAL	5141.2	5141.2	99.13	%	08:33:16
3	Al 396.153Radial†	-173.7	-174.9	[0.00]	ug/L	08:33:16
3	Ca 317.933Radial†	11.4	11.5	[0.00]	ug/L	08:33:36
3	Fe 238.204 Radial†	11.0	11.0	[0.00]	ug/L	08:33:36
3	K 766.490 Radial†	2984.6	3004.5	[0.00]	ug/L	08:33:16
3	Mg 279.077 IEC†	-1.6	-1.6	[0.00]	ug/L	08:33:36
3	Na 589.592 Radial†	-1135.1	-1142.7	[0.00]	ug/L	08:33:16
3	Sr 421.552†	25.2	25.4	[0.00]	ug/L	08:33:16
3	Sc 361.383	822831.0	822831.0	99.511	%	08:34:33
3	Y 371.029	663653.2	663653.2	99.438	%	08:34:33
3	Ag 328.068†	329.6	331.3	[0.00]	ug/L	08:34:33
3	As 188.979†	-26.5	-26.6	[0.00]	ug/L	08:34:53
3	B 249.677†	-584.3	-587.2	[0.00]	ug/L	08:34:53
3	Ba 233.527†	-26.6	-26.8	[0.00]	ug/L	08:34:53
3	Be 313.107†	-3700.2	-3718.3	[0.00]	ug/L	08:34:33
3	Cd 226.502†	-210.9	-212.0	[0.00]	ug/L	08:34:53
3	Co 228.616†	-77.7	-78.1	[0.00]	ug/L	08:34:53
3	Cr 267.716†	84.0	84.4	[0.00]	ug/L	08:34:53
3	Cu 324.752†	4729.6	4752.8	[0.00]	ug/L	08:34:33
3	Mn 257.610†	467.4	469.7	[0.00]	ug/L	08:34:53
3	Mo 202.031†	14.6	14.7	[0.00]	ug/L	08:34:53
3	Ni 231.604†	84.9	85.3	[0.00]	ug/L	08:34:53
3	P 214.914†	248.9	250.2	[0.00]	ug/L	08:34:53
3	Pb 220.353†	-88.1	-88.5	[0.00]	ug/L	08:34:53
3	S 181.975 Axial†	45.7	46.0	[0.00]	ug/L	08:34:53
3	Sb 206.836†	33.5	33.6	[0.00]	ug/L	08:34:53
3	Se 196.026†	-23.9	-24.0	[0.00]	ug/L	08:34:53
3	Si 251.611†	540.5	543.2	[0.00]	ug/L	08:34:53
3	Sn 189.927†	2.3	2.4	[0.00]	ug/L	08:34:53
3	Ti 334.940†	-1609.4	-1617.3	[0.00]	ug/L	08:34:33
3	Tl 190.801†	-29.1	-29.3	[0.00]	ug/L	08:34:53
3	U 409.014†	-3518.0	-3535.3	[0.00]	ug/L	08:34:33
3	V 292.402†	-1545.7	-1553.2	[0.00]	ug/L	08:34:33
3	Zn 213.857†	720.1	723.6	[0.00]	ug/L	08:34:53
3	SiO2†	554.0	556.8	[0.00]	ug/L	08:35:09

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Mean Data: S0

Analyte	Mean Corrected		RSD	Calib	
	Intensity	Std.Dev.		Conc.	Units
Sc 361.383	826872.8	5602.60	0.68%	100.00	%
Sc Radial	4923.1	30.02	0.61%	100	%
Y 371.029	667405.8	5938.37	0.89%	100.00	%
Y RADIAL	5186.4	45.51	0.88%	100.0	%
Ag 328.068†	297.1	32.10	10.80%	[0.00]	ug/L
Al 396.153Radial†	-163.2	13.59	8.32%	[0.00]	ug/L
As 188.979†	-30.7	3.95	12.87%	[0.00]	ug/L
B 249.677†	-595.0	11.34	1.91%	[0.00]	ug/L
Ba 233.527†	-10.3	15.08	146.79%	[0.00]	ug/L
Be 313.107†	-3700.3	17.32	0.47%	[0.00]	ug/L
Ca 317.933Radial†	15.0	3.36	22.48%	[0.00]	ug/L
Cd 226.502†	-216.1	3.77	1.74%	[0.00]	ug/L
Co 228.616†	-83.3	7.48	8.97%	[0.00]	ug/L
Cr 267.716†	66.6	15.40	23.10%	[0.00]	ug/L
Cu 324.752†	4720.9	32.85	0.70%	[0.00]	ug/L
Fe 238.204 Radial†	11.4	1.46	12.80%	[0.00]	ug/L
K 766.490 Radial†	2963.0	36.96	1.25%	[0.00]	ug/L
Mg 279.077 IEC†	1.2	2.45	203.48%	[0.00]	ug/L
Mn 257.610†	469.9	11.07	2.36%	[0.00]	ug/L
Mo 202.031†	11.9	3.71	31.27%	[0.00]	ug/L
Na 589.592 Radial†	-1150.2	22.80	1.98%	[0.00]	ug/L
Ni 231.604†	77.0	10.54	13.68%	[0.00]	ug/L
P 214.914†	247.0	6.66	2.70%	[0.00]	ug/L
Pb 220.353†	-67.2	19.08	28.41%	[0.00]	ug/L
S 181.975 Axial†	47.8	2.30	4.81%	[0.00]	ug/L
Sb 206.836†	35.1	1.80	5.14%	[0.00]	ug/L
Se 196.026†	-25.4	2.87	11.31%	[0.00]	ug/L
Si 251.611†	531.3	13.12	2.47%	[0.00]	ug/L

Sn 189.927†	9.5	11.82	124.68%	[0.00] ug/L
Sr 421.552†	13.7	20.72	151.74%	[0.00] ug/L
Ti 334.940†	-1570.9	44.27	2.82%	[0.00] ug/L
Tl 190.801†	-34.3	4.42	12.86%	[0.00] ug/L
U 409.014†	-3611.9	77.25	2.14%	[0.00] ug/L
V 292.402†	-1590.2	46.71	2.94%	[0.00] ug/L
Zn 213.857†	728.6	6.92	0.95%	[0.00] ug/L
SiO2†	532.4	30.25	5.68%	[0.00] ug/L



Sequence No.: 2  
 Sample ID: S0.1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 2/12/2010 08:37:20  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc Radial	4904.6	4904.6	99.6 %		08:39:17
1	Y RADIAL	5197.3	5197.3	100.2 %		08:39:17
1	K 766.490 Radial†	8576.3	5645.7	[1000] ug/L		08:39:12
1	Sr 421.552†	14832.0	14874.4	[100] ug/L		08:39:17
1	Sc 361.383	822772.8	822772.8	99.504 %		08:39:44
1	Y 371.029	658024.0	658024.0	98.594 %		08:39:44
1	Ag 328.068†	21175.5	20983.9	[100] ug/L		08:39:44
1	As 188.979†	199.7	231.4	[100] ug/L		08:40:04
1	B 249.677†	3473.5	4085.8	[100] ug/L		08:39:44
1	Ba 233.527†	12824.7	12898.9	[100] ug/L		08:39:44
1	Be 313.107†	273095.0	278156.2	[100] ug/L		08:39:44
1	Cd 226.502†	8537.8	8796.4	[100] ug/L		08:39:44
1	Co 228.616†	4745.8	4852.8	[100] ug/L		08:40:04
1	Cr 267.716†	8646.5	8623.0	[100] ug/L		08:39:44
1	Cu 324.752†	37789.3	33256.7	[100] ug/L		08:39:44
1	Mn 257.610†	92439.3	92430.1	[100] ug/L		08:39:44
1	Mo 202.031†	1345.4	1340.3	[100] ug/L		08:40:04
1	Ni 231.604†	3904.2	3846.6	[100] ug/L		08:40:04
1	P 214.914†	1078.0	836.3	[500] ug/L		08:40:04
1	Pb 220.353†	751.2	822.1	[100] ug/L		08:40:04
1	S 181.975 Axial†	193.0	146.1	[200] ug/L		08:40:04
1	Sb 206.836†	327.9	294.4	[100] ug/L		08:40:04
1	Se 196.026†	127.0	153.0	[100] ug/L		08:40:04
1	Si 251.611†	15947.7	15495.8	[500] ug/L		08:39:44
1	Sn 189.927†	563.3	556.6	[100] ug/L		08:40:04
1	Ti 334.940†	62237.6	64118.6	[100] ug/L		08:39:44
1	Tl 190.801†	303.9	339.7	[100] ug/L		08:40:04
1	U 409.014†	-185.2	3425.8	[100] ug/L		08:39:44
1	V 292.402†	11814.1	13463.2	[100] ug/L		08:39:44
1	Zn 213.857†	11348.4	10676.3	[100] ug/L		08:39:44
1	SiO2†	15671.6	15217.3	[1069.5] ug/L		08:41:01
2	Sc Radial	4870.5	4870.5	98.9 %		08:39:27
2	Y RADIAL	5155.0	5155.0	99.40 %		08:39:27
2	K 766.490 Radial†	8593.6	5723.5	[1000] ug/L		08:39:22
2	Sr 421.552†	14952.3	15100.2	[100] ug/L		08:39:27
2	Sc 361.383	828433.6	828433.6	100.19 %		08:40:10
2	Y 371.029	662322.6	662322.6	99.238 %		08:40:10
2	Ag 328.068†	20927.2	20590.7	[100] ug/L		08:40:10
2	As 188.979†	208.7	239.0	[100] ug/L		08:40:30
2	B 249.677†	3425.3	4013.8	[100] ug/L		08:40:10
2	Ba 233.527†	12691.0	12677.4	[100] ug/L		08:40:10
2	Be 313.107†	268824.2	272018.0	[100] ug/L		08:40:10
2	Cd 226.502†	8459.1	8659.2	[100] ug/L		08:40:10
2	Co 228.616†	4680.5	4755.0	[100] ug/L		08:40:30
2	Cr 267.716†	8518.0	8435.4	[100] ug/L		08:40:10
2	Cu 324.752†	37186.9	32395.9	[100] ug/L		08:40:10
2	Mn 257.610†	91236.8	90595.0	[100] ug/L		08:40:10
2	Mo 202.031†	1345.0	1330.6	[100] ug/L		08:40:30
2	Ni 231.604†	3878.3	3793.9	[100] ug/L		08:40:30
2	P 214.914†	1073.9	824.8	[500] ug/L		08:40:30
2	Pb 220.353†	739.6	805.4	[100] ug/L		08:40:30
2	S 181.975 Axial†	187.3	139.2	[200] ug/L		08:40:30
2	Sb 206.836†	320.5	284.7	[100] ug/L		08:40:30
2	Se 196.026†	124.6	149.8	[100] ug/L		08:40:30
2	Si 251.611†	15762.5	15201.5	[500] ug/L		08:40:10
2	Sn 189.927†	546.5	536.0	[100] ug/L		08:40:30
2	Ti 334.940†	61454.5	62909.7	[100] ug/L		08:40:10
2	Tl 190.801†	291.5	325.3	[100] ug/L		08:40:30
2	U 409.014†	-193.3	3419.0	[100] ug/L		08:40:10

2	V 292.402†	11606.9	13175.2	[100]	ug/L	08:40:10
2	Zn 213.857†	11243.9	10494.1	[100]	ug/L	08:40:10
2	SiO2†	15804.3	15242.1	[1069.5]	ug/L	08:41:06
3	Sc Radial	4803.7	4803.7	97.6	%	08:39:37
3	Y RADIAL	5099.1	5099.1	98.32	%	08:39:37
3	K 766.490 Radial†	8566.4	5816.4	[1000]	ug/L	08:39:32
3	Sr 421.552†	15012.1	15371.6	[100]	ug/L	08:39:37
3	Sc 361.383	830200.0	830200.0	100.40	%	08:40:35
3	Y 371.029	663459.8	663459.8	99.409	%	08:40:35
3	Ag 328.068†	20826.2	20445.6	[100]	ug/L	08:40:35
3	As 188.979†	199.5	229.3	[100]	ug/L	08:40:55
3	B 249.677†	3382.4	3963.9	[100]	ug/L	08:40:35
3	Ba 233.527†	12664.6	12624.1	[100]	ug/L	08:40:35
3	Be 313.107†	268227.8	270853.2	[100]	ug/L	08:40:35
3	Cd 226.502†	8421.8	8604.1	[100]	ug/L	08:40:35
3	Co 228.616†	4680.5	4745.1	[100]	ug/L	08:40:55
3	Cr 267.716†	8504.0	8403.3	[100]	ug/L	08:40:35
3	Cu 324.752†	37198.6	32328.6	[100]	ug/L	08:40:35
3	Mn 257.610†	91196.3	90360.9	[100]	ug/L	08:40:35
3	Mo 202.031†	1330.3	1313.1	[100]	ug/L	08:40:55
3	Ni 231.604†	3869.4	3776.8	[100]	ug/L	08:40:55
3	P 214.914†	1064.7	813.4	[500]	ug/L	08:40:55
3	Pb 220.353†	719.7	783.9	[100]	ug/L	08:40:55
3	S 181.975 Axial†	188.0	139.5	[200]	ug/L	08:40:55
3	Sb 206.836†	327.0	290.6	[100]	ug/L	08:40:55
3	Se 196.026†	122.2	147.1	[100]	ug/L	08:40:55
3	Si 251.611†	15737.8	15143.4	[500]	ug/L	08:40:35
3	Sn 189.927†	544.0	532.3	[100]	ug/L	08:40:55
3	Ti 334.940†	61295.3	62620.6	[100]	ug/L	08:40:35
3	Tl 190.801†	286.4	319.6	[100]	ug/L	08:40:55
3	U 409.014†	-135.0	3477.5	[100]	ug/L	08:40:35
3	V 292.402†	11468.7	13012.9	[100]	ug/L	08:40:35
3	Zn 213.857†	11208.2	10434.7	[100]	ug/L	08:40:35
3	SiO2†	15651.1	15056.0	[1069.5]	ug/L	08:41:11

## Mean Data: S0.1

Analyte	Mean Corrected		RSD	Calib	
	Intensity	Std.Dev.		Conc.	Units
Sc 361.383	827135.5	3880.01	0.47%	100.03	%
Sc Radial	4859.6	51.33	1.06%	98.7	%
Y 371.029	661268.8	2867.00	0.43%	99.080	%
Y RADIAL	5150.5	49.23	0.96%	99.31	%
Ag 328.068†	20673.4	278.53	1.35%	[100]	ug/L
As 188.979†	233.2	5.08	2.18%	[100]	ug/L
B 249.677†	4021.2	61.29	1.52%	[100]	ug/L
Ba 233.527†	12733.5	145.71	1.14%	[100]	ug/L
Be 313.107†	273675.8	3923.60	1.43%	[100]	ug/L
Cd 226.502†	8686.6	99.06	1.14%	[100]	ug/L
Co 228.616†	4784.3	59.55	1.24%	[100]	ug/L
Cr 267.716†	8487.2	118.68	1.40%	[100]	ug/L
Cu 324.752†	32660.4	517.53	1.58%	[100]	ug/L
K 766.490 Radial†	5728.5	85.45	1.49%	[1000]	ug/L
Mn 257.610†	91128.7	1133.11	1.24%	[100]	ug/L
Mo 202.031†	1328.0	13.77	1.04%	[100]	ug/L
Ni 231.604†	3805.8	36.39	0.96%	[100]	ug/L
P 214.914†	824.8	11.47	1.39%	[500]	ug/L
Pb 220.353†	803.8	19.14	2.38%	[100]	ug/L
S 181.975 Axial†	141.6	3.95	2.79%	[200]	ug/L
Sb 206.836†	289.9	4.86	1.68%	[100]	ug/L
Se 196.026†	150.0	2.96	1.97%	[100]	ug/L
Si 251.611†	15280.2	188.95	1.24%	[500]	ug/L
Sn 189.927†	541.7	13.08	2.41%	[100]	ug/L
Sr 421.552†	15115.4	248.95	1.65%	[100]	ug/L
Ti 334.940†	63216.3	794.70	1.26%	[100]	ug/L
Tl 190.801†	328.2	10.36	3.16%	[100]	ug/L
U 409.014†	3440.8	32.01	0.93%	[100]	ug/L
V 292.402†	13217.1	228.06	1.73%	[100]	ug/L
Zn 213.857†	10535.0	125.94	1.20%	[100]	ug/L
SiO2†	15171.8	101.03	0.67%	[1069.5]	ug/L

Sequence No.: 3  
 Sample ID: S0.5  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 2/12/2010 08:43:21  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Analysis Time
1	Sc Radial	4893.0	4893.0	99.4 %	08:45:13
1	Y RADIAL	5167.5	5167.5	99.64 %	08:45:13
1	Al 396.153Radial†	5525.8	5723.0	[5000] ug/L	08:45:13
1	Ca 317.933Radial†	3207.9	3212.6	[5000] ug/L	08:45:33
1	K 766.490 Radial†	30898.7	28125.6	[5000] ug/L	08:45:13
1	Mg 279.077 IEC†	159.9	159.6	[5000] ug/L	08:45:33
1	Sr 421.552†	75281.9	75730.9	[500] ug/L	08:45:13
1	Sc 361.383	846083.3	846083.3	102.32 %	08:46:30
1	Y 371.029	670195.9	670195.9	100.42 %	08:46:30
1	Ag 328.068†	103848.7	101193.7	[500] ug/L	08:46:36
1	As 188.979†	1128.3	1133.3	[500] ug/L	08:46:56
1	B 249.677†	20430.6	20561.7	[500] ug/L	08:46:36
1	Ba 233.527†	63274.4	61848.0	[500] ug/L	08:46:36
1	Be 313.107†	1376935.7	1349372.4	[500] ug/L	08:46:30
1	Cd 226.502†	43180.2	42415.9	[500] ug/L	08:46:36
1	Co 228.616†	24566.7	24092.3	[500] ug/L	08:46:36
1	Cr 267.716†	42463.5	41432.7	[500] ug/L	08:46:36
1	Cu 324.752†	168170.2	159630.9	[500] ug/L	08:46:36
1	Mn 257.610†	450706.1	440002.9	[500] ug/L	08:46:30
1	Mo 202.031†	6595.5	6433.9	[500] ug/L	08:46:56
1	Ni 231.604†	19840.8	19313.3	[500] ug/L	08:46:36
1	P 214.914†	4483.2	4134.4	[2500] ug/L	08:46:56
1	Pb 220.353†	4008.1	3984.3	[500] ug/L	08:46:56
1	S 181.975 Axial†	767.1	701.9	[1000] ug/L	08:46:56
1	Sb 206.836†	1465.0	1396.7	[500] ug/L	08:46:56
1	Se 196.026†	746.5	755.0	[500] ug/L	08:46:56
1	Si 251.611†	77510.5	75219.3	[2500] ug/L	08:46:36
1	Sn 189.927†	2759.7	2687.5	[500] ug/L	08:46:56
1	Ti 334.940†	308118.1	302693.1	[500] ug/L	08:46:36
1	Tl 190.801†	1582.5	1580.9	[500] ug/L	08:46:56
1	U 409.014†	12257.8	15591.4	[500] ug/L	08:46:36
1	V 292.402†	65793.2	65889.5	[500] ug/L	08:46:36
1	Zn 213.857†	53618.4	51672.3	[500] ug/L	08:46:36
1	SiO2†	76680.7	74407.2	[5347.5] ug/L	08:48:03
2	Sc Radial	4834.7	4834.7	98.2 %	08:45:38
2	Y RADIAL	5094.6	5094.6	98.23 %	08:45:38
2	Al 396.153Radial†	5463.8	5726.9	[5000] ug/L	08:45:38
2	Ca 317.933Radial†	3202.6	3246.2	[5000] ug/L	08:45:58
2	K 766.490 Radial†	30695.3	28293.3	[5000] ug/L	08:45:38
2	Mg 279.077 IEC†	154.7	156.4	[5000] ug/L	08:45:58
2	Sr 421.552†	74422.3	75768.7	[500] ug/L	08:45:38
2	Sc 361.383	834905.9	834905.9	100.97 %	08:47:02
2	Y 371.029	661125.3	661125.3	99.059 %	08:47:02
2	Ag 328.068†	102729.9	101444.3	[500] ug/L	08:47:07
2	As 188.979†	1127.0	1146.9	[500] ug/L	08:47:27
2	B 249.677†	20225.0	20625.5	[500] ug/L	08:47:07
2	Ba 233.527†	62739.8	62146.4	[500] ug/L	08:47:07
2	Be 313.107†	1351283.5	1341982.3	[500] ug/L	08:47:02
2	Cd 226.502†	42730.8	42535.7	[500] ug/L	08:47:07
2	Co 228.616†	24325.4	24174.7	[500] ug/L	08:47:07
2	Cr 267.716†	41996.0	41525.3	[500] ug/L	08:47:07
2	Cu 324.752†	166135.8	159816.4	[500] ug/L	08:47:07
2	Mn 257.610†	444463.1	439716.7	[500] ug/L	08:47:02
2	Mo 202.031†	6587.6	6512.4	[500] ug/L	08:47:27
2	Ni 231.604†	19637.7	19371.7	[500] ug/L	08:47:07
2	P 214.914†	4473.0	4182.9	[2500] ug/L	08:47:27
2	Pb 220.353†	3981.4	4010.3	[500] ug/L	08:47:27
2	S 181.975 Axial†	765.1	710.0	[1000] ug/L	08:47:27
2	Sb 206.836†	1439.5	1390.5	[500] ug/L	08:47:27

2	Se 196.026†	738.9	757.2	[500]	ug/L	08:47:27
2	Si 251.611†	76653.2	75384.3	[2500]	ug/L	08:47:07
2	Sn 189.927†	2757.6	2721.6	[500]	ug/L	08:47:27
2	Ti 334.940†	304767.1	303405.7	[500]	ug/L	08:47:07
2	Tl 190.801†	1574.0	1593.1	[500]	ug/L	08:47:27
2	U 409.014†	12173.3	15668.1	[500]	ug/L	08:47:07
2	V 292.402†	64915.5	65881.1	[500]	ug/L	08:47:07
2	Zn 213.857†	53105.2	51865.6	[500]	ug/L	08:47:07
2	SiO2†	77534.5	76256.1	[5347.5]	ug/L	08:48:08
3	Sc Radial	4885.2	4885.2	99.2	%	08:46:03
3	Y RADIAL	5151.6	5151.6	99.33	%	08:46:03
3	Al 396.153Radial†	5533.0	5739.2	[5000]	ug/L	08:46:03
3	Ca 317.933Radial†	3196.2	3206.0	[5000]	ug/L	08:46:23
3	K 766.490 Radial†	31092.9	28371.4	[5000]	ug/L	08:46:03
3	Mg 279.077 IEC†	158.9	159.0	[5000]	ug/L	08:46:23
3	Sr 421.552†	75514.3	76087.1	[500]	ug/L	08:46:03
3	Sc 361.383	835248.6	835248.6	101.01	%	08:47:33
3	Y 371.029	660937.9	660937.9	99.031	%	08:47:33
3	Ag 328.068†	103707.5	102370.4	[500]	ug/L	08:47:38
3	As 188.979†	1137.2	1156.4	[500]	ug/L	08:47:58
3	B 249.677†	20462.5	20852.4	[500]	ug/L	08:47:38
3	Ba 233.527†	63233.5	62609.7	[500]	ug/L	08:47:38
3	Be 313.107†	1357145.4	1347236.4	[500]	ug/L	08:47:33
3	Cd 226.502†	43014.7	42799.4	[500]	ug/L	08:47:38
3	Co 228.616†	24523.4	24360.8	[500]	ug/L	08:47:38
3	Cr 267.716†	42515.0	42022.0	[500]	ug/L	08:47:38
3	Cu 324.752†	167854.2	161450.0	[500]	ug/L	08:47:38
3	Mn 257.610†	445897.9	440956.6	[500]	ug/L	08:47:33
3	Mo 202.031†	6574.8	6497.0	[500]	ug/L	08:47:58
3	Ni 231.604†	19821.1	19545.4	[500]	ug/L	08:47:38
3	P 214.914†	4462.7	4170.9	[2500]	ug/L	08:47:58
3	Pb 220.353†	3993.5	4020.7	[500]	ug/L	08:47:58
3	S 181.975 Axial†	771.8	716.3	[1000]	ug/L	08:47:58
3	Sb 206.836†	1462.3	1412.5	[500]	ug/L	08:47:58
3	Se 196.026†	732.9	751.0	[500]	ug/L	08:47:58
3	Si 251.611†	77419.4	76111.7	[2500]	ug/L	08:47:38
3	Sn 189.927†	2749.2	2712.2	[500]	ug/L	08:47:58
3	Ti 334.940†	307748.6	306233.4	[500]	ug/L	08:47:38
3	Tl 190.801†	1582.0	1600.5	[500]	ug/L	08:47:58
3	U 409.014†	12274.4	15763.3	[500]	ug/L	08:47:38
3	V 292.402†	65658.1	66589.9	[500]	ug/L	08:47:38
3	Zn 213.857†	53611.5	52345.3	[500]	ug/L	08:47:38
3	SiO2†	76783.5	75481.2	[5347.5]	ug/L	08:48:13

## Mean Data: S0.5

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	838745.9	6356.62	0.76%	101.44	%
Sc Radial	4871.0	31.62	0.65%	98.9	%
Y 371.029	664086.4	5291.84	0.80%	99.503	%
Y RADIAL	5137.9	38.33	0.75%	99.07	%
Ag 328.068†	101669.5	619.80	0.61%	[500]	ug/L
Al 396.153Radial†	5729.7	8.43	0.15%	[5000]	ug/L
As 188.979†	1145.5	11.62	1.01%	[500]	ug/L
B 249.677†	20679.9	152.76	0.74%	[500]	ug/L
Ba 233.527†	62201.4	383.79	0.62%	[500]	ug/L
Be 313.107†	1346197.0	3803.13	0.28%	[500]	ug/L
Ca 317.933Radial†	3221.6	21.53	0.67%	[5000]	ug/L
Cd 226.502†	42583.6	196.19	0.46%	[500]	ug/L
Co 228.616†	24209.3	137.57	0.57%	[500]	ug/L
Cr 267.716†	41660.0	316.91	0.76%	[500]	ug/L
Cu 324.752†	160299.1	1001.04	0.62%	[500]	ug/L
K 766.490 Radial†	28263.4	125.60	0.44%	[5000]	ug/L
Mg 279.077 IEC†	158.3	1.73	1.09%	[5000]	ug/L
Mn 257.610†	440225.4	649.18	0.15%	[500]	ug/L
Mo 202.031†	6481.1	41.58	0.64%	[500]	ug/L
Ni 231.604†	19410.1	120.70	0.62%	[500]	ug/L
P 214.914†	4162.7	25.30	0.61%	[2500]	ug/L
Pb 220.353†	4005.1	18.74	0.47%	[500]	ug/L
S 181.975 Axial†	709.4	7.21	1.02%	[1000]	ug/L

Sb 206.836†	1399.9	11.34	0.81%	[500]	ug/L
Se 196.026†	754.4	3.14	0.42%	[500]	ug/L
Si 251.611†	75571.8	474.84	0.63%	[2500]	ug/L
Sn 189.927†	2707.1	17.60	0.65%	[500]	ug/L
Sr 421.552†	75862.2	195.63	0.26%	[500]	ug/L
Ti 334.940†	304110.7	1872.49	0.62%	[500]	ug/L
Tl 190.801†	1591.5	9.90	0.62%	[500]	ug/L
U 409.014†	15674.3	86.08	0.55%	[500]	ug/L
V 292.402†	66120.2	406.82	0.62%	[500]	ug/L
Zn 213.857†	51961.1	346.46	0.67%	[500]	ug/L
SiO2†	75381.5	928.47	1.23%	[5347.5]	ug/L

Sequence No.: 4  
 Sample ID: SCAL  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/12/2010 08:50:24  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc Radial	4779.4	4779.4	97.1 %		08:52:37
1	Y RADIAL	5019.6	5019.6	96.79 %		08:52:37
1	Al 396.153Radial†	11204.2	11704.4	[10000] ug/L		08:52:17
1	Ca 317.933Radial†	6326.1	6501.4	[10000] ug/L		08:52:37
1	Fe 238.204 Radial†	1113.0	1135.0	[10000] ug/L		08:52:37
1	K 766.490 Radial†	59169.3	57985.6	[10000] ug/L		08:52:17
1	Mg 279.077 IEC†	309.3	317.4	[10000] ug/L		08:52:37
1	Na 589.592 Radial†	30658.7	32730.9	[10000] ug/L		08:52:17
1	Sr 421.552†	149597.0	154081.9	[1000] ug/L		08:52:17
1	Sc 361.383	820468.2	820468.2	99.225 %		08:53:41
1	Y 371.029	658950.7	658950.7	98.733 %		08:53:41
1	Ag 328.068†	206784.7	208101.8	[1000] ug/L		08:53:41
1	As 188.979†	2270.5	2318.9	[1000] ug/L		08:54:01
1	B 249.677†	41298.7	42216.1	[1000] ug/L		08:53:41
1	Ba 233.527†	124674.3	125657.7	[1000] ug/L		08:53:41
1	Be 313.107†	2696451.0	2721199.8	[1000] ug/L		08:53:35
1	Cd 226.502†	84983.2	85862.6	[1000] ug/L		08:53:41
1	Co 228.616†	48264.5	48724.6	[1000] ug/L		08:53:41
1	Cr 267.716†	83736.0	84323.0	[1000] ug/L		08:53:41
1	Cu 324.752†	329044.2	326891.8	[1000] ug/L		08:53:41
1	Mn 257.610†	879525.6	885921.3	[1000] ug/L		08:53:35
1	Mo 202.031†	13186.5	13277.6	[1000] ug/L		08:54:01
1	Ni 231.604†	38879.1	39105.6	[1000] ug/L		08:53:41
1	P 214.914†	8656.4	8477.0	[5000] ug/L		08:54:01
1	Pb 220.353†	7988.8	8118.3	[1000] ug/L		08:54:01
1	S 181.975 Axial†	1494.1	1458.0	[2000] ug/L		08:54:01
1	Sb 206.836†	2869.1	2856.4	[1000] ug/L		08:54:01
1	Se 196.026†	1490.4	1527.5	[1000] ug/L		08:54:01
1	Si 251.611†	152848.1	153509.9	[5000] ug/L		08:53:41
1	Sn 189.927†	5480.6	5513.9	[1000] ug/L		08:54:01
1	Ti 334.940†	615935.1	622314.0	[1000] ug/L		08:53:41
1	Tl 190.801†	3152.5	3211.5	[1000] ug/L		08:54:01
1	U 409.014†	28093.2	31924.4	[1000] ug/L		08:53:41
1	V 292.402†	131791.8	134410.7	[1000] ug/L		08:53:41
1	Zn 213.857†	104768.9	104858.1	[1000] ug/L		08:53:41
1	SiO2†	151264.0	151912.4	[10695] ug/L		08:55:09
2	Sc Radial	4839.1	4839.1	98.3 %		08:53:03
2	Y RADIAL	5071.9	5071.9	97.79 %		08:53:03
2	Al 396.153Radial†	11113.7	11469.9	[10000] ug/L		08:52:42
2	Ca 317.933Radial†	6407.7	6503.9	[10000] ug/L		08:53:03
2	Fe 238.204 Radial†	1124.0	1132.1	[10000] ug/L		08:53:03
2	K 766.490 Radial†	58410.4	56461.0	[10000] ug/L		08:52:42
2	Mg 279.077 IEC†	308.8	313.0	[10000] ug/L		08:53:03
2	Na 589.592 Radial†	30119.2	31792.1	[10000] ug/L		08:52:42
2	Sr 421.552†	147421.6	149966.2	[1000] ug/L		08:52:42
2	Sc 361.383	806199.1	806199.1	97.500 %		08:54:12
2	Y 371.029	644744.0	644744.0	96.604 %		08:54:12
2	Ag 328.068†	202654.9	207554.5	[1000] ug/L		08:54:12
2	As 188.979†	2261.0	2349.6	[1000] ug/L		08:54:32
2	B 249.677†	40357.2	41987.1	[1000] ug/L		08:54:12
2	Ba 233.527†	122292.3	125438.6	[1000] ug/L		08:54:12
2	Be 313.107†	2704434.9	2777486.2	[1000] ug/L		08:54:07
2	Cd 226.502†	83111.9	85459.2	[1000] ug/L		08:54:12
2	Co 228.616†	47254.2	48549.3	[1000] ug/L		08:54:12
2	Cr 267.716†	82127.5	84166.9	[1000] ug/L		08:54:12
2	Cu 324.752†	321898.6	325432.3	[1000] ug/L		08:54:12
2	Mn 257.610†	883223.7	905402.7	[1000] ug/L		08:54:07
2	Mo 202.031†	13151.3	13476.7	[1000] ug/L		08:54:32
2	Ni 231.604†	38036.7	38935.1	[1000] ug/L		08:54:12

2	P 214.914†	8647.2	8621.9	[5000]	ug/L	08:54:32
2	Pb 220.353†	8024.9	8297.8	[1000]	ug/L	08:54:32
2	S 181.975 Axial†	1483.9	1474.1	[2000]	ug/L	08:54:32
2	Sb 206.836†	2899.5	2938.7	[1000]	ug/L	08:54:32
2	Se 196.026†	1492.2	1555.8	[1000]	ug/L	08:54:32
2	Si 251.611†	149394.5	152694.1	[5000]	ug/L	08:54:12
2	Sn 189.927†	5498.1	5629.6	[1000]	ug/L	08:54:32
2	Ti 334.940†	603268.4	620309.1	[1000]	ug/L	08:54:12
2	Tl 190.801†	3164.3	3279.8	[1000]	ug/L	08:54:32
2	U 409.014†	27540.4	31858.6	[1000]	ug/L	08:54:12
2	V 292.402†	128993.0	133891.0	[1000]	ug/L	08:54:12
2	Zn 213.857†	102511.3	104411.4	[1000]	ug/L	08:54:12
2	SiO2†	154440.2	157868.2	[10695]	ug/L	08:55:15
3	Sc Radial	4842.4	4842.4	98.4	%	08:53:28
3	Y RADIAL	5079.5	5079.5	97.94	%	08:53:28
3	Al 396.153Radial†	11377.7	11730.4	[10000]	ug/L	08:53:08
3	Ca 317.933Radial†	6402.0	6493.6	[10000]	ug/L	08:53:28
3	Fe 238.204 Radial†	1130.2	1137.6	[10000]	ug/L	08:53:28
3	K 766.490 Radial†	60200.5	58240.1	[10000]	ug/L	08:53:08
3	Mg 279.077 IEC†	312.6	316.6	[10000]	ug/L	08:53:28
3	Na 589.592 Radial†	31051.7	32719.1	[10000]	ug/L	08:53:08
3	Sr 421.552†	151778.2	154292.2	[1000]	ug/L	08:53:08
3	Sc 361.383	820749.3	820749.3	99.259	%	08:54:44
3	Y 371.029	660353.8	660353.8	98.943	%	08:54:44
3	Ag 328.068†	207095.5	208343.5	[1000]	ug/L	08:54:44
3	As 188.979†	2262.5	2310.1	[1000]	ug/L	08:55:04
3	B 249.677†	41419.8	42323.9	[1000]	ug/L	08:54:44
3	Ba 233.527†	125036.3	125979.5	[1000]	ug/L	08:54:44
3	Be 313.107†	2725989.6	2750028.3	[1000]	ug/L	08:54:38
3	Cd 226.502†	85170.5	86022.0	[1000]	ug/L	08:54:44
3	Co 228.616†	48391.8	48836.2	[1000]	ug/L	08:54:44
3	Cr 267.716†	83976.4	84536.3	[1000]	ug/L	08:54:44
3	Cu 324.752†	329326.7	327062.8	[1000]	ug/L	08:54:44
3	Mn 257.610†	888358.6	894516.7	[1000]	ug/L	08:54:38
3	Mo 202.031†	13215.4	13302.1	[1000]	ug/L	08:55:04
3	Ni 231.604†	38976.1	39189.9	[1000]	ug/L	08:54:44
3	P 214.914†	8701.3	8519.2	[5000]	ug/L	08:55:04
3	Pb 220.353†	8044.9	8172.1	[1000]	ug/L	08:55:04
3	S 181.975 Axial†	1507.2	1470.6	[2000]	ug/L	08:55:04
3	Sb 206.836†	2899.4	2885.9	[1000]	ug/L	08:55:04
3	Se 196.026†	1487.9	1524.4	[1000]	ug/L	08:55:04
3	Si 251.611†	153030.0	153640.4	[5000]	ug/L	08:54:44
3	Sn 189.927†	5503.5	5535.1	[1000]	ug/L	08:55:04
3	Ti 334.940†	617438.5	623616.0	[1000]	ug/L	08:54:44
3	Tl 190.801†	3157.5	3215.4	[1000]	ug/L	08:55:04
3	U 409.014†	28239.4	32062.1	[1000]	ug/L	08:54:44
3	V 292.402†	132316.5	134893.8	[1000]	ug/L	08:54:44
3	Zn 213.857†	104831.2	104884.7	[1000]	ug/L	08:54:44
3	SiO2†	151396.8	151994.0	[10695]	ug/L	08:55:20

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	815805.5	8320.60	1.02%	98.662	%
Sc Radial	4820.3	35.49	0.74%	97.9	%
Y 371.029	654682.8	8635.83	1.32%	98.094	%
Y RADIAL	5057.0	32.60	0.64%	97.51	%
Ag 328.068†	207999.9	404.22	0.19%	[1000]	ug/L
Al 396.153Radial†	11634.9	143.52	1.23%	[10000]	ug/L
As 188.979†	2326.2	20.77	0.89%	[1000]	ug/L
B 249.677†	42175.7	171.99	0.41%	[1000]	ug/L
Ba 233.527†	125691.9	272.06	0.22%	[1000]	ug/L
Be 313.107†	2749571.4	28145.97	1.02%	[1000]	ug/L
Ca 317.933Radial†	6499.6	5.35	0.08%	[10000]	ug/L
Cd 226.502†	85781.3	290.09	0.34%	[1000]	ug/L
Co 228.616†	48703.3	144.64	0.30%	[1000]	ug/L
Cr 267.716†	84342.1	185.48	0.22%	[1000]	ug/L
Cu 324.752†	326462.3	896.11	0.27%	[1000]	ug/L
Fe 238.204 Radial†	1134.9	2.75	0.24%	[10000]	ug/L
K 766.490 Radial†	57562.2	962.15	1.67%	[10000]	ug/L

Mg 279.077 IEC†	315.6	2.37	0.75%	[10000]	ug/L
Mn 257.610†	895280.2	9763.15	1.09%	[1000]	ug/L
Mo 202.031†	13352.1	108.53	0.81%	[1000]	ug/L
Na 589.592 Radial†	32414.0	538.64	1.66%	[10000]	ug/L
Ni 231.604†	39076.9	129.83	0.33%	[1000]	ug/L
P 214.914†	8539.4	74.55	0.87%	[5000]	ug/L
Pb 220.353†	8196.1	92.11	1.12%	[1000]	ug/L
S 181.975 Axial†	1467.6	8.51	0.58%	[2000]	ug/L
Sb 206.836†	2893.7	41.71	1.44%	[1000]	ug/L
Se 196.026†	1535.9	17.35	1.13%	[1000]	ug/L
Si 251.611†	153281.5	512.84	0.33%	[5000]	ug/L
Sn 189.927†	5559.5	61.61	1.11%	[1000]	ug/L
Sr 421.552†	152780.1	2439.17	1.60%	[1000]	ug/L
Ti 334.940†	622079.7	1665.84	0.27%	[1000]	ug/L
Tl 190.801†	3235.5	38.37	1.19%	[1000]	ug/L
U 409.014†	31948.4	103.82	0.32%	[1000]	ug/L
V 292.402†	134398.5	501.54	0.37%	[1000]	ug/L
Zn 213.857†	104718.1	265.90	0.25%	[1000]	ug/L
SiO2†	153924.9	3415.27	2.22%	[10695]	ug/L



Sequence No.: 5  
 Sample ID: S10  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 2/12/2010 08:57:31  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc Radial	4767.0	4767.0	96.8 %	08:59:45
1	Y RADIAL	5001.9	5001.9	96.44 %	08:59:45
1	Al 396.153Radial†	54890.4	56851.5	[50000] ug/L	08:59:25
1	Ca 317.933Radial†	30517.9	31502.5	[50000] ug/L	08:59:25
1	Fe 238.204 Radial†	2119.1	2177.1	[20000] ug/L	08:59:45
1	Mg 279.077 IEC†	1467.8	1514.7	[50000] ug/L	08:59:45
1	Na 589.592 Radial†	56904.0	59918.1	[20000] ug/L	08:59:25
1	Sc 361.383	830756.5	830756.5	100.47 %	09:00:42
1	Y 371.029	657038.0	657038.0	98.447 %	09:00:42
2	Sc Radial	4740.3	4740.3	96.3 %	09:00:10
2	Y RADIAL	5003.5	5003.5	96.48 %	09:00:10
2	Al 396.153Radial†	55385.3	57684.1	[50000] ug/L	08:59:50
2	Ca 317.933Radial†	30763.3	31934.5	[50000] ug/L	08:59:50
2	Fe 238.204 Radial†	2109.5	2179.4	[20000] ug/L	09:00:10
2	Mg 279.077 IEC†	1467.0	1522.4	[50000] ug/L	09:00:10
2	Na 589.592 Radial†	57156.9	60510.9	[20000] ug/L	08:59:50
2	Sc 361.383	817405.0	817405.0	98.855 %	09:00:47
2	Y 371.029	645615.2	645615.2	96.735 %	09:00:47
3	Sc Radial	4778.1	4778.1	97.1 %	09:00:35
3	Y RADIAL	5027.7	5027.7	96.94 %	09:00:35
3	Al 396.153Radial†	56509.9	58388.3	[50000] ug/L	09:00:15
3	Ca 317.933Radial†	31249.8	32183.3	[50000] ug/L	09:00:15
3	Fe 238.204 Radial†	2120.0	2172.9	[20000] ug/L	09:00:35
3	Mg 279.077 IEC†	1470.4	1513.9	[50000] ug/L	09:00:35
3	Na 589.592 Radial†	58167.7	61083.4	[20000] ug/L	09:00:15
3	Sc 361.383	821064.1	821064.1	99.298 %	09:00:53
3	Y 371.029	648596.8	648596.8	97.182 %	09:00:53

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	823075.2	6899.22	0.84%	99.541 %
Sc Radial	4761.8	19.40	0.41%	96.7 %
Y 371.029	650416.7	5924.88	0.91%	97.454 %
Y RADIAL	5011.0	14.48	0.29%	96.62 %
Al 396.153Radial†	57641.3	769.31	1.33%	[50000] ug/L
Ca 317.933Radial†	31873.4	344.47	1.08%	[50000] ug/L
Fe 238.204 Radial†	2176.5	3.27	0.15%	[20000] ug/L
Mg 279.077 IEC†	1517.0	4.70	0.31%	[50000] ug/L
Na 589.592 Radial†	60504.1	582.69	0.96%	[20000] ug/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	207.1	0.00000	0.999960	
Al 396.153Radial	3	Lin Thru 0	0.0	1.153	0.00000	0.999998	
As 188.979	3	Lin Thru 0	0.0	2.319	0.00000	0.999982	
B 249.677	3	Lin Thru 0	0.0	42.00	0.00000	0.999963	
Ba 233.527	3	Lin Thru 0	0.0	125.4	0.00000	0.999991	
Be 313.107	3	Lin Thru 0	0.0	2738	0.00000	0.999965	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6380	0.00000	0.999993	
Cd 226.502	3	Lin Thru 0	0.0	85.67	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	48.64	0.00000	0.999996	
Cr 267.716	3	Lin Thru 0	0.0	84.14	0.00000	0.999988	
Cu 324.752	3	Lin Thru 0	0.0	325.3	0.00000	0.999974	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1098	0.00000	0.999855	
K 766.490 Radial	3	Lin Thru 0	0.0	5.735	0.00000	0.999974	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0304	0.00000	0.999962
Mn 257.610	3	Lin Thru 0	0.0	892.5	0.00000	0.999976
Mo 202.031	3	Lin Thru 0	0.0	13.27	0.00000	0.999932
Na 589.592 Radia	2	Lin Thru 0	0.0	3.068	0.00000	0.999603
Ni 231.604	3	Lin Thru 0	0.0	39.02	0.00000	0.999994
P 214.914	3	Lin Thru 0	0.0	1.699	0.00000	0.999946
Pb 220.353	3	Lin Thru 0	0.0	8.158	0.00000	0.999958
S 181.975 Axial	3	Lin Thru 0	0.0	0.7287	0.00000	0.999908
Sb 206.836	3	Lin Thru 0	0.0	2.875	0.00000	0.999915
Se 196.026	3	Lin Thru 0	0.0	1.530	0.00000	0.999973
Si 251.611	3	Lin Thru 0	0.0	30.57	0.00000	0.999984
Sn 189.927	3	Lin Thru 0	0.0	5.530	0.00000	0.999944
Sr 421.552	3	Lin Thru 0	0.0	152.6	0.00000	0.999996
Ti 334.940	3	Lin Thru 0	0.0	619.4	0.00000	0.999959
Tl 190.801	3	Lin Thru 0	0.0	3.225	0.00000	0.999978
U 409.014	3	Lin Thru 0	0.0	31.85	0.00000	0.999946
V 292.402	3	Lin Thru 0	0.0	134.0	0.00000	0.999979
Zn 213.857	3	Lin Thru 0	0.0	104.6	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	14.33	0.00000	0.999966

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 2/12/2010 09:03:05

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4860.2	4860.2	98.7 %		09:04:57
1	Y RADIAL	5165.2	5165.2	99.59 %		09:04:57
1	Al 396.153Radial†	5536.2	5771.1	4979.1 ug/L	4979.1 ppb	09:04:57
1	Ca 317.933Radial†	3181.1	3207.3	5027.1 ug/L	5027.1 ppb	09:05:18
1	Fe 238.204 Radial†	568.9	564.9	5161.3 ug/L	5161.3 ppb	09:05:18
1	K 766.490 Radial†	16717.5	13970.8	2432.4 ug/L	2432.4 ppb	09:04:57
1	Mg 279.077 IEC†	159.6	160.5	5279.9 ug/L	5279.9 ppb	09:05:18
1	Na 589.592 Radial†	6561.0	7796.1	2540.7 ug/L	2540.7 ppb	09:04:57
1	Sr 421.552†	77194.4	78179.4	512.42 ug/L	512.42 ppb	09:04:57
1	Sc 361.383	847545.6	847545.6	102.50 %		09:06:15
1	Y 371.029	672376.6	672376.6	100.74 %		09:06:15
1	Ag 328.068†	53558.0	51954.5	254.18 ug/L	254.18 ppb	09:06:15
1	As 188.979†	1063.9	1068.6	464.97 ug/L	464.97 ppb	09:06:35
1	B 249.677†	21223.2	21300.6	504.94 ug/L	504.94 ppb	09:06:15
1	Ba 233.527†	64173.7	62618.7	500.40 ug/L	500.40 ppb	09:06:15
1	Be 313.107†	704513.8	691030.1	253.50 ug/L	253.50 ppb	09:06:15
1	Cd 226.502†	41565.9	40768.2	475.76 ug/L	475.76 ppb	09:06:35
1	Co 228.616†	24340.1	23829.8	490.06 ug/L	490.06 ppb	09:06:35
1	Cr 267.716†	41235.8	40163.3	477.92 ug/L	477.92 ppb	09:06:15
1	Cu 324.752†	170317.5	161442.3	496.29 ug/L	496.29 ppb	09:06:15
1	Mn 257.610†	457739.6	446104.9	500.15 ug/L	500.15 ppb	09:06:15
1	Mo 202.031†	7155.6	6969.2	525.48 ug/L	525.48 ppb	09:06:35
1	Ni 231.604†	19434.0	18883.0	483.66 ug/L	483.66 ppb	09:06:35
1	P 214.914†	4508.2	4151.2	2346.8 ug/L	2346.8 ppb	09:06:35
1	Pb 220.353†	4016.6	3985.7	490.26 ug/L	490.26 ppb	09:06:35
1	S 181.975 Axial†	1870.6	1777.2	2437.7 ug/L	2437.7 ppb	09:06:35
1	Sb 206.836†	1473.3	1402.3	506.56 ug/L	506.56 ppb	09:06:35
1	Se 196.026†	3902.1	3832.4	2522.8 ug/L	2522.8 ppb	09:06:35
1	Si 251.611†	149137.2	144968.2	4735.6 ug/L	4735.6 ppb	09:06:15
1	Sn 189.927†	2973.5	2891.5	523.77 ug/L	523.77 ppb	09:06:35
1	Ti 334.940†	313511.7	307435.7	496.19 ug/L	496.19 ppb	09:06:15
1	Tl 190.801†	1662.9	1656.6	517.04 ug/L	517.04 ppb	09:06:35
1	U 409.014†	12177.4	15492.3	484.78 ug/L	484.78 ppb	09:06:15
1	V 292.402†	66120.7	66098.1	500.44 ug/L	500.44 ppb	09:06:15
1	Zn 213.857†	54263.5	52211.3	494.79 ug/L	494.79 ppb	09:06:15
1	SiO2†	149488.7	145310.1	10125 ug/L	10125 ppb	09:07:33
2	Sc Radial	4802.8	4802.8	97.6 %		09:05:23
2	Y RADIAL	5103.8	5103.8	98.41 %		09:05:23
2	Al 396.153Radial†	5462.0	5762.1	4971.2 ug/L	4971.2 ppb	09:05:23
2	Ca 317.933Radial†	3193.0	3258.1	5106.6 ug/L	5106.6 ppb	09:05:43
2	Fe 238.204 Radial†	568.7	571.5	5222.1 ug/L	5222.1 ppb	09:05:43
2	K 766.490 Radial†	16689.9	14145.1	2462.7 ug/L	2462.7 ppb	09:05:23
2	Mg 279.077 IEC†	159.9	162.7	5352.0 ug/L	5352.0 ppb	09:05:43
2	Na 589.592 Radial†	6523.9	7837.6	2554.3 ug/L	2554.3 ppb	09:05:23
2	Sr 421.552†	76229.4	78125.8	512.07 ug/L	512.07 ppb	09:05:23
2	Sc 361.383	846542.4	846542.4	102.38 %		09:06:41
2	Y 371.029	671725.4	671725.4	100.65 %		09:06:41
2	Ag 328.068†	53239.6	51705.4	253.00 ug/L	253.00 ppb	09:06:41
2	As 188.979†	1075.8	1081.5	470.54 ug/L	470.54 ppb	09:07:01
2	B 249.677†	21147.3	21251.0	503.74 ug/L	503.74 ppb	09:06:41
2	Ba 233.527†	64078.6	62600.0	500.25 ug/L	500.25 ppb	09:06:41
2	Be 313.107†	704334.4	691669.3	253.73 ug/L	253.73 ppb	09:06:41
2	Cd 226.502†	41810.0	41054.6	479.09 ug/L	479.09 ppb	09:07:01
2	Co 228.616†	24459.8	23974.8	493.05 ug/L	493.05 ppb	09:07:01
2	Cr 267.716†	41142.1	40119.5	477.41 ug/L	477.41 ppb	09:06:41
2	Cu 324.752†	170001.1	161330.1	495.95 ug/L	495.95 ppb	09:06:41
2	Mn 257.610†	457241.4	446147.4	500.20 ug/L	500.20 ppb	09:06:41
2	Mo 202.031†	7186.2	7007.4	528.36 ug/L	528.36 ppb	09:07:01
2	Ni 231.604†	19522.1	18991.4	486.44 ug/L	486.44 ppb	09:07:01

2	P 214.914†	4547.0	4194.4	2372.3 ug/L	2372.3 ppb	09:07:01
2	Pb 220.353†	4034.4	4007.8	492.98 ug/L	492.98 ppb	09:07:01
2	S 181.975 Axial†	1887.4	1795.8	2463.3 ug/L	2463.3 ppb	09:07:01
2	Sb 206.836†	1481.1	1411.5	509.88 ug/L	509.88 ppb	09:07:01
2	Se 196.026†	3954.1	3887.6	2559.1 ug/L	2559.1 ppb	09:07:01
2	Si 251.611†	148931.4	144939.7	4734.6 ug/L	4734.6 ppb	09:06:41
2	Sn 189.927†	2980.0	2901.3	525.56 ug/L	525.56 ppb	09:07:01
2	Ti 334.940†	312596.7	306904.4	495.34 ug/L	495.34 ppb	09:06:41
2	Tl 190.801†	1673.9	1669.4	520.96 ug/L	520.96 ppb	09:07:01
2	U 409.014†	11829.8	15166.9	474.55 ug/L	474.55 ppb	09:06:41
2	V 292.402†	65952.2	66009.9	499.80 ug/L	499.80 ppb	09:06:41
2	Zn 213.857†	54196.8	52208.9	494.74 ug/L	494.74 ppb	09:06:41
2	SiO2†	151540.3	147486.9	10276 ug/L	10276 ppb	09:07:38
3	Sc Radial	4877.3	4877.3	99.1 %		09:05:48
3	Y RADIAL	5157.6	5157.6	99.45 %		09:05:48
3	Al 396.153Radial†	5562.3	5777.9	4985.3 ug/L	4985.3 ppb	09:05:48
3	Ca 317.933Radial†	3189.8	3204.8	5023.1 ug/L	5023.1 ppb	09:06:08
3	Fe 238.204 Radial†	574.7	568.7	5196.1 ug/L	5196.1 ppb	09:06:08
3	K 766.490 Radial†	17070.4	14267.9	2484.2 ug/L	2484.2 ppb	09:05:48
3	Mg 279.077 IEC†	162.6	162.9	5359.4 ug/L	5359.4 ppb	09:06:08
3	Na 589.592 Radial†	6628.5	7841.0	2555.4 ug/L	2555.4 ppb	09:05:48
3	Sr 421.552†	77579.0	78294.4	513.17 ug/L	513.17 ppb	09:05:48
3	Sc 361.383	862327.3	862327.3	104.29 %		09:07:07
3	Y 371.029	684913.9	684913.9	102.62 %		09:07:07
3	Ag 328.068†	54265.4	51737.2	253.14 ug/L	253.14 ppb	09:07:07
3	As 188.979†	1071.0	1057.6	460.28 ug/L	460.28 ppb	09:07:27
3	B 249.677†	21718.5	21420.6	507.81 ug/L	507.81 ppb	09:07:07
3	Ba 233.527†	65256.7	62583.9	500.12 ug/L	500.12 ppb	09:07:07
3	Be 313.107†	719874.9	693977.7	254.58 ug/L	254.58 ppb	09:07:07
3	Cd 226.502†	41683.3	40185.6	468.95 ug/L	468.95 ppb	09:07:27
3	Co 228.616†	24415.9	23495.4	483.17 ug/L	483.17 ppb	09:07:27
3	Cr 267.716†	41889.4	40100.5	477.18 ug/L	477.18 ppb	09:07:07
3	Cu 324.752†	173549.4	161693.0	497.06 ug/L	497.06 ppb	09:07:07
3	Mn 257.610†	465625.8	446011.7	500.05 ug/L	500.05 ppb	09:07:07
3	Mo 202.031†	7174.1	6867.3	517.81 ug/L	517.81 ppb	09:07:27
3	Ni 231.604†	19464.9	18587.6	476.10 ug/L	476.10 ppb	09:07:27
3	P 214.914†	4521.0	4088.1	2309.5 ug/L	2309.5 ppb	09:07:27
3	Pb 220.353†	4031.0	3932.4	483.71 ug/L	483.71 ppb	09:07:27
3	S 181.975 Axial†	1861.4	1737.1	2382.7 ug/L	2382.7 ppb	09:07:27
3	Sb 206.836†	1475.6	1379.8	498.47 ug/L	498.47 ppb	09:07:27
3	Se 196.026†	3918.5	3782.8	2490.5 ug/L	2490.5 ppb	09:07:27
3	Si 251.611†	151960.6	145181.4	4742.7 ug/L	4742.7 ppb	09:07:07
3	Sn 189.927†	2983.2	2851.1	516.45 ug/L	516.45 ppb	09:07:27
3	Ti 334.940†	318800.0	307263.5	495.91 ug/L	495.91 ppb	09:07:07
3	Tl 190.801†	1670.5	1636.1	510.70 ug/L	510.70 ppb	09:07:27
3	U 409.014†	12373.0	15476.2	484.27 ug/L	484.27 ppb	09:07:07
3	V 292.402†	67328.1	66150.1	500.72 ug/L	500.72 ppb	09:07:07
3	Zn 213.857†	55388.4	52382.5	496.47 ug/L	496.47 ppb	09:07:07
3	SiO2†	148124.1	141501.6	9859.1 ug/L	9859.1 ppb	09:07:43

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	852138.4	103.06 %	1.069			1.04%
Sc Radial	4846.7	98.4 %	0.79			0.81%
Y 371.029	676338.6	101.34 %	1.114			1.10%
Y RADIAL	5142.2	99.15 %	0.646			0.65%
Ag 328.068†	51799.0	253.44 ug/L	0.643	253.44 ppb	0.643	0.25%
QC value within limits for Ag 328.068 Recovery = 101.38%						
Al 396.153Radial†	5770.4	4978.6 ug/L	7.09	4978.6 ppb	7.09	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.57%						
As 188.979†	1069.2	465.27 ug/L	5.136	465.27 ppb	5.136	1.10%
QC value within limits for As 188.979 Recovery = 93.05%						
B 249.677†	21324.0	505.50 ug/L	2.091	505.50 ppb	2.091	0.41%
QC value within limits for B 249.677 Recovery = 101.10%						
Ba 233.527†	62600.9	500.26 ug/L	0.138	500.26 ppb	0.138	0.03%
QC value within limits for Ba 233.527 Recovery = 100.05%						
Be 313.107†	692225.7	253.94 ug/L	0.566	253.94 ppb	0.566	0.22%
QC value within limits for Be 313.107 Recovery = 101.57%						
Ca 317.933Radial†	3223.4	5052.3 ug/L	47.11	5052.3 ppb	47.11	0.93%

QC value within limits for Ca 317.933 Radial Recovery = 101.05%

Cd 226.502†	40669.4	474.60 ug/L	5.171	474.60 ppb	5.171	1.09%
QC value within limits for Cd 226.502 Recovery = 94.92%						
Co 228.616†	23766.7	488.76 ug/L	5.068	488.76 ppb	5.068	1.04%
QC value within limits for Co 228.616 Recovery = 97.75%						
Cr 267.716†	40127.8	477.50 ug/L	0.382	477.50 ppb	0.382	0.08%
QC value within limits for Cr 267.716 Recovery = 95.50%						
Cu 324.752†	161488.5	496.44 ug/L	0.569	496.44 ppb	0.569	0.11%
QC value within limits for Cu 324.752 Recovery = 99.29%						
Fe 238.204 Radial†	568.4	5193.2 ug/L	30.51	5193.2 ppb	30.51	0.59%
QC value within limits for Fe 238.204 Radial Recovery = 103.86%						
K 766.490 Radial†	14127.9	2459.8 ug/L	26.03	2459.8 ppb	26.03	1.06%
QC value within limits for K 766.490 Radial Recovery = 98.39%						
Mg 279.077 IEC†	162.0	5330.5 ug/L	43.92	5330.5 ppb	43.92	0.82%
QC value within limits for Mg 279.077 IEC Recovery = 106.61%						
Mn 257.610†	446088.0	500.13 ug/L	0.079	500.13 ppb	0.079	0.02%
QC value within limits for Mn 257.610 Recovery = 100.03%						
Mo 202.031†	6948.0	523.88 ug/L	5.455	523.88 ppb	5.455	1.04%
QC value within limits for Mo 202.031 Recovery = 104.78%						
Na 589.592 Radial†	7824.9	2550.1 ug/L	8.14	2550.1 ppb	8.14	0.32%
QC value within limits for Na 589.592 Radial Recovery = 102.00%						
Ni 231.604†	18820.7	482.07 ug/L	5.353	482.07 ppb	5.353	1.11%
QC value within limits for Ni 231.604 Recovery = 96.41%						
P 214.914†	4144.5	2342.9 ug/L	31.61	2342.9 ppb	31.61	1.35%
QC value within limits for P 214.914 Recovery = 93.71%						
Pb 220.353†	3975.3	488.98 ug/L	4.766	488.98 ppb	4.766	0.97%
QC value within limits for Pb 220.353 Recovery = 97.80%						
S 181.975 Axial†	1770.0	2427.9 ug/L	41.17	2427.9 ppb	41.17	1.70%
QC value within limits for S 181.975 Axial Recovery = 97.12%						
Sb 206.836†	1397.9	504.97 ug/L	5.868	504.97 ppb	5.868	1.16%
QC value within limits for Sb 206.836 Recovery = 100.99%						
Se 196.026†	3834.3	2524.2 ug/L	34.34	2524.2 ppb	34.34	1.36%
QC value within limits for Se 196.026 Recovery = 100.97%						
Si 251.611†	145029.8	4737.6 ug/L	4.39	4737.6 ppb	4.39	0.09%
QC value within limits for Si 251.611 Recovery = 94.75%						
Sn 189.927†	2881.3	521.93 ug/L	4.824	521.93 ppb	4.824	0.92%
QC value within limits for Sn 189.927 Recovery = 104.39%						
Sr 421.552†	78199.8	512.55 ug/L	0.565	512.55 ppb	0.565	0.11%
QC value within limits for Sr 421.552 Recovery = 102.51%						
Ti 334.940†	307201.2	495.82 ug/L	0.432	495.82 ppb	0.432	0.09%
QC value within limits for Ti 334.940 Recovery = 99.16%						
Tl 190.801†	1654.0	516.23 ug/L	5.178	516.23 ppb	5.178	1.00%
QC value within limits for Tl 190.801 Recovery = 103.25%						
U 409.014†	15378.5	481.20 ug/L	5.761	481.20 ppb	5.761	1.20%
QC value within limits for U 409.014 Recovery = 96.24%						
V 292.402†	66086.0	500.32 ug/L	0.472	500.32 ppb	0.472	0.09%
QC value within limits for V 292.402 Recovery = 100.06%						
Zn 213.857†	52267.6	495.34 ug/L	0.984	495.34 ppb	0.984	0.20%
QC value within limits for Zn 213.857 Recovery = 99.07%						
SiO2†	144766.2	10087 ug/L	211.2	10087 ppb	211.2	2.09%
QC value within limits for SiO2 Recovery = 94.31%						

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 2/12/2010 09:09:54

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4893.6	4893.6	99.4 %		09:11:47
1	Y RADIAL	5162.8	5162.8	99.55 %		09:11:47
1	Al 396.153Radial†	-173.6	-11.4	-9.9281 ug/L	-9.9281 ppb	09:11:47
1	Ca 317.933Radial†	17.0	2.2	3.3741 ug/L	3.3741 ppb	09:12:07
1	Fe 238.204 Radial†	11.8	0.5	4.3788 ug/L	4.3788 ppb	09:12:07
1	K 766.490 Radial†	3134.1	190.0	33.118 ug/L	33.118 ppb	09:11:47
1	Mg 279.077 IEC†	0.8	-0.4	-12.608 ug/L	-12.608 ppb	09:12:07
1	Na 589.592 Radial†	-1139.7	3.7	1.1925 ug/L	1.1925 ppb	09:11:47
1	Sr 421.552†	4.0	-9.7	-0.0634 ug/L	-0.0634 ppb	09:11:47
1	Sc 361.383	834566.6	834566.6	100.93 %		09:13:04
1	Y 371.029	666877.4	666877.4	99.921 %		09:13:04
1	Ag 328.068†	317.3	17.3	0.0855 ug/L	0.0855 ppb	09:13:04
1	As 188.979†	-31.7	-0.7	-0.3128 ug/L	-0.3128 ppb	09:13:24
1	B 249.677†	-393.5	205.1	4.8831 ug/L	4.8831 ppb	09:13:24
1	Ba 233.527†	2.8	13.1	0.1044 ug/L	0.1044 ppb	09:13:24
1	Be 313.107†	-3756.1	-21.1	-0.0076 ug/L	-0.0076 ppb	09:13:04
1	Cd 226.502†	-207.0	11.0	0.1274 ug/L	0.1274 ppb	09:13:24
1	Co 228.616†	-80.2	3.9	0.0808 ug/L	0.0808 ppb	09:13:24
1	Cr 267.716†	81.2	13.8	0.1641 ug/L	0.1641 ppb	09:13:24
1	Cu 324.752†	4638.3	-125.4	-0.3847 ug/L	-0.3847 ppb	09:13:04
1	Mn 257.610†	497.6	23.1	0.0269 ug/L	0.0269 ppb	09:13:24
1	Mo 202.031†	22.1	10.0	0.7534 ug/L	0.7534 ppb	09:13:24
1	Ni 231.604†	83.3	5.5	0.1407 ug/L	0.1407 ppb	09:13:24
1	P 214.914†	224.9	-24.2	-14.148 ug/L	-14.148 ppb	09:13:24
1	Pb 220.353†	-66.4	1.4	0.1686 ug/L	0.1686 ppb	09:13:24
1	S 181.975 Axial†	48.9	0.6	0.8806 ug/L	0.8806 ppb	09:13:24
1	Sb 206.836†	43.6	8.0	2.8429 ug/L	2.8429 ppb	09:13:24
1	Se 196.026†	-20.2	5.4	3.5624 ug/L	3.5624 ppb	09:13:24
1	Si 251.611†	581.1	44.4	1.4434 ug/L	1.4434 ppb	09:13:24
1	Sn 189.927†	21.6	11.9	2.1609 ug/L	2.1609 ppb	09:13:24
1	Ti 334.940†	-1546.0	39.2	0.0651 ug/L	0.0651 ppb	09:13:04
1	Tl 190.801†	-16.7	17.8	5.5152 ug/L	5.5152 ppb	09:13:24
1	U 409.014†	-3678.1	-32.2	-1.0134 ug/L	-1.0134 ppb	09:13:04
1	V 292.402†	-1614.9	-9.8	-0.0658 ug/L	-0.0658 ppb	09:13:04
1	Zn 213.857†	715.4	-19.8	-0.1905 ug/L	-0.1905 ppb	09:13:24
1	SiO2†	614.4	76.4	5.3075 ug/L	5.3075 ppb	09:14:20
2	Sc Radial	4800.0	4800.0	97.5 %		09:12:13
2	Y RADIAL	5099.7	5099.7	98.33 %		09:12:13
2	Al 396.153Radial†	-177.2	-18.5	-16.138 ug/L	-16.138 ppb	09:12:13
2	Ca 317.933Radial†	18.2	3.7	5.7973 ug/L	5.7973 ppb	09:12:33
2	Fe 238.204 Radial†	12.3	1.2	11.195 ug/L	11.195 ppb	09:12:33
2	K 766.490 Radial†	3016.9	131.3	22.880 ug/L	22.880 ppb	09:12:13
2	Mg 279.077 IEC†	1.1	-0.1	-2.9284 ug/L	-2.9284 ppb	09:12:33
2	Na 589.592 Radial†	-1108.1	13.7	4.4722 ug/L	4.4722 ppb	09:12:13
2	Sr 421.552†	8.3	-5.1	-0.0336 ug/L	-0.0336 ppb	09:12:13
2	Sc 361.383	820959.5	820959.5	99.285 %		09:13:30
2	Y 371.029	657033.5	657033.5	98.446 %		09:13:30
2	Ag 328.068†	212.0	-83.6	-0.4083 ug/L	-0.4083 ppb	09:13:30
2	As 188.979†	-20.6	9.9	4.2846 ug/L	4.2846 ppb	09:13:50
2	B 249.677†	-365.6	226.8	5.3984 ug/L	5.3984 ppb	09:13:50
2	Ba 233.527†	-7.8	2.4	0.0187 ug/L	0.0187 ppb	09:13:50
2	Be 313.107†	-3664.9	9.0	0.0030 ug/L	0.0030 ppb	09:13:30
2	Cd 226.502†	-216.9	-2.4	-0.0275 ug/L	-0.0275 ppb	09:13:50
2	Co 228.616†	-76.9	5.9	0.1248 ug/L	0.1248 ppb	09:13:50
2	Cr 267.716†	75.9	9.8	0.1132 ug/L	0.1132 ppb	09:13:50
2	Cu 324.752†	4624.4	-63.3	-0.1983 ug/L	-0.1983 ppb	09:13:30
2	Mn 257.610†	487.3	21.0	0.0247 ug/L	0.0247 ppb	09:13:50
2	Mo 202.031†	30.1	18.5	1.3913 ug/L	1.3913 ppb	09:13:50
2	Ni 231.604†	96.7	20.4	0.5219 ug/L	0.5219 ppb	09:13:50

2	P 214.914†	232.3	-13.1	-7.6970 ug/L	-7.6970 ppb	09:13:50
2	Pb 220.353†	-59.1	7.6	0.9357 ug/L	0.9357 ppb	09:13:50
2	S 181.975 Axial†	45.8	-1.6	-2.2472 ug/L	-2.2472 ppb	09:13:50
2	Sb 206.836†	44.0	9.2	3.2251 ug/L	3.2251 ppb	09:13:50
2	Se 196.026†	-28.1	-2.9	-1.8841 ug/L	-1.8841 ppb	09:13:50
2	Si 251.611†	595.5	68.5	2.2232 ug/L	2.2232 ppb	09:13:50
2	Sn 189.927†	4.5	-4.9	-0.8865 ug/L	-0.8865 ppb	09:13:50
2	Ti 334.940†	-1641.5	-82.4	-0.1356 ug/L	-0.1356 ppb	09:13:30
2	Tl 190.801†	-29.4	4.7	1.4651 ug/L	1.4651 ppb	09:13:50
2	U 409.014†	-3333.5	254.4	7.9875 ug/L	7.9875 ppb	09:13:30
2	V 292.402†	-1628.9	-50.4	-0.3430 ug/L	-0.3430 ppb	09:13:30
2	Zn 213.857†	696.3	-27.3	-0.2661 ug/L	-0.2661 ppb	09:13:50
2	SiO2†	604.3	76.3	5.2862 ug/L	5.2862 ppb	09:14:25
3	Sc Radial	4871.7	4871.7	99.0 %		09:12:38
3	Y RADIAL	5220.0	5220.0	100.6 %		09:12:38
3	Al 396.153Radial†	-168.9	-7.4	-6.4739 ug/L	-6.4739 ppb	09:12:38
3	Ca 317.933Radial†	20.2	5.4	8.4934 ug/L	8.4934 ppb	09:12:58
3	Fe 238.204 Radial†	9.6	-1.7	-15.358 ug/L	-15.358 ppb	09:12:58
3	K 766.490 Radial†	3110.8	180.7	31.490 ug/L	31.490 ppb	09:12:38
3	Mg 279.077 IEC†	2.7	1.5	50.133 ug/L	50.133 ppb	09:12:58
3	Na 589.592 Radial†	-1108.4	30.2	9.8260 ug/L	9.8260 ppb	09:12:38
3	Sr 421.552†	6.8	-6.8	-0.0448 ug/L	-0.0448 ppb	09:12:38
3	Sc 361.383	815718.9	815718.9	98.651 %		09:13:55
3	Y 371.029	653510.6	653510.6	97.918 %		09:13:55
3	Ag 328.068†	291.6	-1.5	-0.0090 ug/L	-0.0090 ppb	09:13:55
3	As 188.979†	-29.6	0.7	0.2887 ug/L	0.2887 ppb	09:14:15
3	B 249.677†	-425.9	163.3	3.8909 ug/L	3.8909 ppb	09:14:15
3	Ba 233.527†	-14.2	-4.1	-0.0335 ug/L	-0.0335 ppb	09:14:15
3	Be 313.107†	-3657.6	-7.2	-0.0031 ug/L	-0.0031 ppb	09:13:55
3	Cd 226.502†	-195.4	18.0	0.2110 ug/L	0.2110 ppb	09:14:15
3	Co 228.616†	-66.8	15.7	0.3250 ug/L	0.3250 ppb	09:14:15
3	Cr 267.716†	88.3	22.9	0.2740 ug/L	0.2740 ppb	09:14:15
3	Cu 324.752†	4694.0	37.3	0.1169 ug/L	0.1169 ppb	09:13:55
3	Mn 257.610†	476.9	13.5	0.0116 ug/L	0.0116 ppb	09:14:15
3	Mo 202.031†	25.7	14.2	1.0704 ug/L	1.0704 ppb	09:14:15
3	Ni 231.604†	91.6	15.9	0.4063 ug/L	0.4063 ppb	09:14:15
3	P 214.914†	236.2	-7.6	-4.4431 ug/L	-4.4431 ppb	09:14:15
3	Pb 220.353†	-66.2	0.0	0.0073 ug/L	0.0073 ppb	09:14:15
3	S 181.975 Axial†	40.5	-6.8	-9.2673 ug/L	-9.2673 ppb	09:14:15
3	Sb 206.836†	39.8	5.2	1.8847 ug/L	1.8847 ppb	09:14:15
3	Se 196.026†	-15.7	9.5	6.1482 ug/L	6.1482 ppb	09:14:15
3	Si 251.611†	591.7	68.5	2.2269 ug/L	2.2269 ppb	09:14:15
3	Sn 189.927†	24.4	15.2	2.7519 ug/L	2.7519 ppb	09:14:15
3	Ti 334.940†	-1665.8	-117.7	-0.1905 ug/L	-0.1905 ppb	09:13:55
3	Tl 190.801†	-25.2	8.8	2.7339 ug/L	2.7339 ppb	09:14:15
3	U 409.014†	-3745.6	-184.9	-5.8034 ug/L	-5.8034 ppb	09:13:55
3	V 292.402†	-1601.7	-33.4	-0.2419 ug/L	-0.2419 ppb	09:13:55
3	Zn 213.857†	713.0	-5.9	-0.0567 ug/L	-0.0567 ppb	09:14:15
3	SiO2†	569.2	44.6	3.0805 ug/L	3.0805 ppb	09:14:30

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	823748.3	99.622 %	1.1765			1.18%
Sc Radial	4855.1	98.6 %	0.99			1.01%
Y 371.029	659140.5	98.762 %	1.0381			1.05%
Y RADIAL	5160.8	99.51 %	1.161			1.17%
Ag 328.068†	-22.6	-0.1106 ug/L	0.26210	-0.1106 ppb	0.26210	236.99%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-12.4	-10.847 ug/L	4.8969	-10.847 ppb	4.8969	45.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.3	1.4202 ug/L	2.49882	1.4202 ppb	2.49882	175.95%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	198.4	4.7241 ug/L	0.76621	4.7241 ppb	0.76621	16.22%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	3.8	0.0299 ug/L	0.06959	0.0299 ppb	0.06959	232.93%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-6.5	-0.0026 ug/L	0.00530	-0.0026 ppb	0.00530	207.51%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	3.8	5.8883 ug/L	2.56088	5.8883 ppb	2.56088	43.49%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	8.9	0.1036 ug/L	0.12104	0.1036 ppb	0.12104	116.78%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	8.5	0.1769 ug/L	0.13019	0.1769 ppb	0.13019	73.61%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	15.5	0.1838 ug/L	0.08222	0.1838 ppb	0.08222	44.74%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-50.5	-0.1554 ug/L	0.25357	-0.1554 ppb	0.25357	163.19%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	0.0	0.0719 ug/L	13.79053	0.0719 ppb	13.79053	>999.9%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	167.3	29.163 ug/L	5.5013	29.163 ppb	5.5013	18.86%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	0.4	11.532 ug/L	33.7777	11.532 ppb	33.7777	292.90%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	19.2	0.0211 ug/L	0.00828	0.0211 ppb	0.00828	39.32%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	14.2	1.0717 ug/L	0.31892	1.0717 ppb	0.31892	29.76%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	15.8	5.1636 ug/L	4.35809	5.1636 ppb	4.35809	84.40%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	13.9	0.3563 ug/L	0.19546	0.3563 ppb	0.19546	54.85%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-15.0	-8.7628 ug/L	4.93954	-8.7628 ppb	4.93954	56.37%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	3.0	0.3705 ug/L	0.49602	0.3705 ppb	0.49602	133.87%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-2.6	-3.5446 ug/L	5.19688	-3.5446 ppb	5.19688	146.61%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	7.5	2.6509 ug/L	0.69050	2.6509 ppb	0.69050	26.05%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	4.0	2.6088 ug/L	4.10020	2.6088 ppb	4.10020	157.17%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	60.5	1.9645 ug/L	0.45129	1.9645 ppb	0.45129	22.97%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	7.4	1.3421 ug/L	1.95249	1.3421 ppb	1.95249	145.48%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-7.2	-0.0473 ug/L	0.01506	-0.0473 ppb	0.01506	31.87%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-53.6	-0.0870 ug/L	0.13456	-0.0870 ppb	0.13456	154.69%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	10.4	3.2381 ug/L	2.07159	3.2381 ppb	2.07159	63.98%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	12.4	0.3902 ug/L	7.00175	0.3902 ppb	7.00175	>999.9%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-31.2	-0.2169 ug/L	0.14029	-0.2169 ppb	0.14029	64.69%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	-17.7	-0.1711 ug/L	0.10606	-0.1711 ppb	0.10606	61.99%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		65.7	4.5580 ug/L	1.27968	4.5580 ppb	1.27968	28.08%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.



Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 2/12/2010 09:16:41

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4870.8	4870.8	98.9 %		09:18:35
1	Y RADIAL	5179.0	5179.0	99.86 %		09:18:35
1	Al 396.153Radial†	65.9	229.9	198.82 ug/L	198.82 ppb	09:18:35
1	Ca 317.933Radial†	148.4	135.1	211.71 ug/L	211.71 ppb	09:18:55
1	Fe 238.204 Radial†	23.3	12.1	110.73 ug/L	110.73 ppb	09:18:55
1	K 766.490 Radial†	3736.6	813.8	141.67 ug/L	141.67 ppb	09:18:35
1	Mg 279.077 IEC†	7.4	6.3	207.15 ug/L	207.15 ppb	09:18:55
1	Na 589.592 Radial†	-181.1	967.2	315.19 ug/L	315.19 ppb	09:18:35
1	Sr 421.552†	755.0	749.5	4.9112 ug/L	4.9112 ppb	09:18:35
1	Sc 361.383	822377.0	822377.0	99.456 %		09:19:52
1	Y 371.029	661376.1	661376.1	99.097 %		09:19:52
1	Ag 328.068†	1270.9	980.7	4.7451 ug/L	4.7451 ppb	09:19:52
1	As 188.979†	34.4	65.2	28.163 ug/L	28.163 ppb	09:20:12
1	B 249.677†	1501.5	2104.8	50.083 ug/L	50.083 ppb	09:19:52
1	Ba 233.527†	629.7	643.4	5.1424 ug/L	5.1424 ppb	09:20:12
1	Be 313.107†	9599.4	13352.2	4.8878 ug/L	4.8878 ppb	09:19:52
1	Cd 226.502†	221.8	439.1	5.1282 ug/L	5.1282 ppb	09:20:12
1	Co 228.616†	164.8	249.1	5.1343 ug/L	5.1343 ppb	09:20:12
1	Cr 267.716†	524.5	460.7	5.4625 ug/L	5.4625 ppb	09:19:52
1	Cu 324.752†	7953.7	3276.3	10.047 ug/L	10.047 ppb	09:19:52
1	Mn 257.610†	9524.1	9106.2	10.206 ug/L	10.206 ppb	09:19:52
1	Mo 202.031†	155.6	144.6	10.903 ug/L	10.903 ppb	09:20:12
1	Ni 231.604†	290.9	215.5	5.5195 ug/L	5.5195 ppb	09:20:12
1	P 214.914†	485.8	241.4	140.16 ug/L	140.16 ppb	09:20:12
1	Pb 220.353†	19.0	86.3	10.636 ug/L	10.636 ppb	09:20:12
1	S 181.975 Axial†	116.3	69.1	94.801 ug/L	94.801 ppb	09:20:12
1	Sb 206.836†	75.6	40.9	14.619 ug/L	14.619 ppb	09:20:12
1	Se 196.026†	19.8	45.3	30.002 ug/L	30.002 ppb	09:20:12
1	Si 251.611†	3608.6	3097.0	101.17 ug/L	101.17 ppb	09:19:52
1	Sn 189.927†	77.2	68.1	12.348 ug/L	12.348 ppb	09:20:12
1	Ti 334.940†	1542.6	3121.9	5.0257 ug/L	5.0257 ppb	09:19:52
1	Tl 190.801†	33.1	67.6	21.025 ug/L	21.025 ppb	09:20:12
1	U 409.014†	-1868.2	1733.5	54.406 ug/L	54.406 ppb	09:19:52
1	V 292.402†	-956.6	628.3	4.9292 ug/L	4.9292 ppb	09:19:52
1	Zn 213.857†	1764.8	1045.9	9.9365 ug/L	9.9365 ppb	09:20:12
1	SiO2†	3574.9	3062.1	213.36 ug/L	213.36 ppb	09:21:08
2	Sc Radial	4851.2	4851.2	98.5 %		09:19:00
2	Y RADIAL	5169.0	5169.0	99.67 %		09:19:00
2	Al 396.153Radial†	44.3	208.3	180.07 ug/L	180.07 ppb	09:19:00
2	Ca 317.933Radial†	139.6	126.7	198.58 ug/L	198.58 ppb	09:19:20
2	Fe 238.204 Radial†	19.2	8.0	73.422 ug/L	73.422 ppb	09:19:20
2	K 766.490 Radial†	3966.5	1062.3	185.02 ug/L	185.02 ppb	09:19:00
2	Mg 279.077 IEC†	11.1	10.0	330.52 ug/L	330.52 ppb	09:19:20
2	Na 589.592 Radial†	-230.2	916.6	298.72 ug/L	298.72 ppb	09:19:00
2	Sr 421.552†	708.4	705.2	4.6212 ug/L	4.6212 ppb	09:19:00
2	Sc 361.383	813315.3	813315.3	98.360 %		09:20:17
2	Y 371.029	654127.6	654127.6	98.010 %		09:20:17
2	Ag 328.068†	1294.5	1018.9	4.9216 ug/L	4.9216 ppb	09:20:17
2	As 188.979†	40.9	72.3	31.191 ug/L	31.191 ppb	09:20:37
2	B 249.677†	1521.6	2142.0	50.976 ug/L	50.976 ppb	09:20:17
2	Ba 233.527†	624.4	645.0	5.1544 ug/L	5.1544 ppb	09:20:37
2	Be 313.107†	9445.2	13303.0	4.8696 ug/L	4.8696 ppb	09:20:17
2	Cd 226.502†	218.5	438.3	5.1214 ug/L	5.1214 ppb	09:20:37
2	Co 228.616†	145.8	231.6	4.7752 ug/L	4.7752 ppb	09:20:37
2	Cr 267.716†	530.2	472.4	5.6024 ug/L	5.6024 ppb	09:20:17
2	Cu 324.752†	7908.5	3319.4	10.181 ug/L	10.181 ppb	09:20:17
2	Mn 257.610†	9450.2	9137.8	10.233 ug/L	10.233 ppb	09:20:17
2	Mo 202.031†	152.7	143.4	10.808 ug/L	10.808 ppb	09:20:37
2	Ni 231.604†	294.3	222.2	5.6909 ug/L	5.6909 ppb	09:20:37

2	P 214.914†	484.4	245.4	142.52 ug/L	142.52 ppb	09:20:37
2	Pb 220.353†	9.7	77.0	9.4944 ug/L	9.4944 ppb	09:20:37
2	S 181.975 Axial†	120.1	74.4	102.01 ug/L	102.01 ppb	09:20:37
2	Sb 206.836†	60.6	26.5	9.6093 ug/L	9.6093 ppb	09:20:37
2	Se 196.026†	24.1	49.9	32.877 ug/L	32.877 ppb	09:20:37
2	Si 251.611†	3528.8	3056.3	99.841 ug/L	99.841 ppb	09:20:17
2	Sn 189.927†	67.5	59.2	10.732 ug/L	10.732 ppb	09:20:37
2	Ti 334.940†	1447.2	3042.2	4.8875 ug/L	4.8875 ppb	09:20:17
2	Tl 190.801†	31.6	66.4	20.657 ug/L	20.657 ppb	09:20:37
2	U 409.014†	-2012.1	1566.3	49.159 ug/L	49.159 ppb	09:20:17
2	V 292.402†	-943.5	631.0	4.9457 ug/L	4.9457 ppb	09:20:17
2	Zn 213.857†	1744.3	1044.7	9.9303 ug/L	9.9303 ppb	09:20:37
2	SiO2†	3604.3	3132.0	218.24 ug/L	218.24 ppb	09:21:13
3	Sc Radial	4782.3	4782.3	97.1 %		09:19:25
3	Y RADIAL	5055.1	5055.1	97.47 %		09:19:25
3	Al 396.153Radial†	66.0	231.2	199.97 ug/L	199.97 ppb	09:19:25
3	Ca 317.933Radial†	148.2	137.7	215.75 ug/L	215.75 ppb	09:19:45
3	Fe 238.204 Radial†	20.9	10.1	92.367 ug/L	92.367 ppb	09:19:45
3	K 766.490 Radial†	3913.0	1065.2	185.52 ug/L	185.52 ppb	09:19:25
3	Mg 279.077 IEC†	10.9	10.0	329.16 ug/L	329.16 ppb	09:19:45
3	Na 589.592 Radial†	-263.1	879.4	286.59 ug/L	286.59 ppb	09:19:25
3	Sr 421.552†	688.8	695.4	4.5568 ug/L	4.5568 ppb	09:19:25
3	Sc 361.383	820802.1	820802.1	99.266 %		09:20:43
3	Y 371.029	661529.3	661529.3	99.119 %		09:20:43
3	Ag 328.068†	1307.2	1019.8	4.9262 ug/L	4.9262 ppb	09:20:43
3	As 188.979†	33.8	64.7	27.937 ug/L	27.937 ppb	09:21:03
3	B 249.677†	1487.6	2093.7	49.822 ug/L	49.822 ppb	09:20:43
3	Ba 233.527†	628.1	643.0	5.1384 ug/L	5.1384 ppb	09:21:03
3	Be 313.107†	9594.7	13366.0	4.8926 ug/L	4.8926 ppb	09:20:43
3	Cd 226.502†	213.6	431.3	5.0387 ug/L	5.0387 ppb	09:21:03
3	Co 228.616†	156.7	241.2	4.9737 ug/L	4.9737 ppb	09:21:03
3	Cr 267.716†	488.2	425.1	5.0389 ug/L	5.0389 ppb	09:20:43
3	Cu 324.752†	7895.5	3233.0	9.9131 ug/L	9.9131 ppb	09:20:43
3	Mn 257.610†	9494.9	9095.2	10.187 ug/L	10.187 ppb	09:20:43
3	Mo 202.031†	160.3	149.6	11.282 ug/L	11.282 ppb	09:21:03
3	Ni 231.604†	294.7	219.8	5.6313 ug/L	5.6313 ppb	09:21:03
3	P 214.914†	481.4	237.9	138.15 ug/L	138.15 ppb	09:21:03
3	Pb 220.353†	-9.8	57.3	7.0781 ug/L	7.0781 ppb	09:21:03
3	S 181.975 Axial†	118.4	71.5	98.098 ug/L	98.098 ppb	09:21:03
3	Sb 206.836†	72.5	37.9	13.548 ug/L	13.548 ppb	09:21:03
3	Se 196.026†	19.2	44.7	29.545 ug/L	29.545 ppb	09:21:03
3	Si 251.611†	3539.0	3033.9	99.102 ug/L	99.102 ppb	09:20:43
3	Sn 189.927†	63.6	54.6	9.9138 ug/L	9.9138 ppb	09:21:03
3	Ti 334.940†	1467.4	3049.1	4.8988 ug/L	4.8988 ppb	09:20:43
3	Tl 190.801†	17.9	52.3	16.277 ug/L	16.277 ppb	09:21:03
3	U 409.014†	-1854.9	1743.4	54.717 ug/L	54.717 ppb	09:20:43
3	V 292.402†	-995.7	587.1	4.6329 ug/L	4.6329 ppb	09:20:43
3	Zn 213.857†	1762.6	1047.0	9.9501 ug/L	9.9501 ppb	09:21:03
3	SiO2†	3564.4	3058.4	213.09 ug/L	213.09 ppb	09:21:18

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	818831.5	99.028 %	0.5855			0.59%
Sc Radial	4834.8	98.2 %	0.94			0.96%
Y 371.029	659011.0	98.742 %	0.6338			0.64%
Y RADIAL	5134.4	99.00 %	1.327			1.34%
Ag 328.068†	1006.5	4.8643 ug/L	0.10325	4.8643 ppb	0.10325	2.12%
QC value within limits for Ag 328.068 Recovery = 97.29%						
Al 396.153Radial†	223.1	192.95 ug/L	11.175	192.95 ppb	11.175	5.79%
QC value within limits for Al 396.153Radial Recovery = 96.48%						
As 188.979†	67.4	29.097 ug/L	1.8167	29.097 ppb	1.8167	6.24%
QC value within limits for As 188.979 Recovery = 96.99%						
B 249.677†	2113.5	50.294 ug/L	0.6049	50.294 ppb	0.6049	1.20%
QC value within limits for B 249.677 Recovery = 100.59%						
Ba 233.527†	643.8	5.1451 ug/L	0.00836	5.1451 ppb	0.00836	0.16%
QC value within limits for Ba 233.527 Recovery = 102.90%						
Be 313.107†	13340.4	4.8833 ug/L	0.01217	4.8833 ppb	0.01217	0.25%
QC value within limits for Be 313.107 Recovery = 97.67%						
Ca 317.933Radial†	133.1	208.68 ug/L	8.975	208.68 ppb	8.975	4.30%

QC value within limits for Ca 317.933 Radial Recovery = 104.34%

Cd 226.502†	436.2	5.0961 ug/L	0.04982	5.0961 ppb	0.04982	0.98%
QC value within limits for Cd 226.502 Recovery = 101.92%						
Co 228.616†	240.6	4.9611 ug/L	0.17986	4.9611 ppb	0.17986	3.63%
QC value within limits for Co 228.616 Recovery = 99.22%						
Cr 267.716†	452.7	5.3679 ug/L	0.29343	5.3679 ppb	0.29343	5.47%
QC value within limits for Cr 267.716 Recovery = 107.36%						
Cu 324.752†	3276.2	10.047 ug/L	0.1339	10.047 ppb	0.1339	1.33%
QC value within limits for Cu 324.752 Recovery = 100.47%						
Fe 238.204 Radial†	10.1	92.173 ug/L	18.6546	92.173 ppb	18.6546	20.24%
QC value within limits for Fe 238.204 Radial Recovery = 92.17%						
K 766.490 Radial†	980.4	170.74 ug/L	25.175	170.74 ppb	25.175	14.74%
QC value within limits for K 766.490 Radial Recovery = 113.83%						
Mg 279.077 IEC†	8.8	288.94 ug/L	70.839	288.94 ppb	70.839	24.52%
QC value within limits for Mg 279.077 IEC Recovery = 96.31%						
Mn 257.610†	9113.1	10.208 ug/L	0.0230	10.208 ppb	0.0230	0.23%
QC value within limits for Mn 257.610 Recovery = 102.08%						
Mo 202.031†	145.9	10.997 ug/L	0.2510	10.997 ppb	0.2510	2.28%
QC value within limits for Mo 202.031 Recovery = 109.97%						
Na 589.592 Radial†	921.0	300.17 ug/L	14.358	300.17 ppb	14.358	4.78%
QC value within limits for Na 589.592 Radial Recovery = 100.06%						
Ni 231.604†	219.2	5.6139 ug/L	0.08703	5.6139 ppb	0.08703	1.55%
QC value within limits for Ni 231.604 Recovery = 112.28%						
P 214.914†	241.6	140.28 ug/L	2.186	140.28 ppb	2.186	1.56%
QC value within limits for P 214.914 Recovery = 93.52%						
Pb 220.353†	73.5	9.0696 ug/L	1.81671	9.0696 ppb	1.81671	20.03%
QC value within limits for Pb 220.353 Recovery = 90.70%						
S 181.975 Axial†	71.7	98.301 ug/L	3.6068	98.301 ppb	3.6068	3.67%
QC value within limits for S 181.975 Axial Recovery = 98.30%						
Sb 206.836†	35.1	12.592 ug/L	2.6382	12.592 ppb	2.6382	20.95%
QC value within limits for Sb 206.836 Recovery = 125.92%						
Se 196.026†	46.6	30.808 ug/L	1.8065	30.808 ppb	1.8065	5.86%
QC value within limits for Se 196.026 Recovery = 102.69%						
Si 251.611†	3062.4	100.04 ug/L	1.049	100.04 ppb	1.049	1.05%
QC value within limits for Si 251.611 Recovery = 100.04%						
Sn 189.927†	60.6	10.998 ug/L	1.2386	10.998 ppb	1.2386	11.26%
QC value within limits for Sn 189.927 Recovery = 109.98%						
Sr 421.552†	716.7	4.6964 ug/L	0.18878	4.6964 ppb	0.18878	4.02%
QC value within limits for Sr 421.552 Recovery = 93.93%						
Ti 334.940†	3071.1	4.9374 ug/L	0.07674	4.9374 ppb	0.07674	1.55%
QC value within limits for Ti 334.940 Recovery = 98.75%						
Tl 190.801†	62.1	19.320 ug/L	2.6417	19.320 ppb	2.6417	13.67%
QC value within limits for Tl 190.801 Recovery = 96.60%						
U 409.014†	1681.1	52.761 ug/L	3.1226	52.761 ppb	3.1226	5.92%
QC value within limits for U 409.014 Recovery = 105.52%						
V 292.402†	615.5	4.8359 ug/L	0.17601	4.8359 ppb	0.17601	3.64%
QC value within limits for V 292.402 Recovery = 96.72%						
Zn 213.857†	1045.9	9.9390 ug/L	0.01011	9.9390 ppb	0.01011	0.10%
QC value within limits for Zn 213.857 Recovery = 99.39%						
SiO2†	3084.2	214.90 ug/L	2.899	214.90 ppb	2.899	1.35%
QC value within limits for SiO2 Recovery = 100.89%						

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: ICSA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 13

Date Collected: 2/12/2010 09:23:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4456.2	4456.2	90.5 %		09:25:28
1	Y RADIAL	4738.9	4738.9	91.37 %		09:25:28
1	Al 396.153Radial†	550892.0	608780.1	527920 ug/L	527920 ppb	09:25:23
1	Ca 317.933Radial†	282543.1	312134.2	489230 ug/L	489230 ppb	09:25:23
1	Fe 238.204 Radial†	19070.9	21057.8	191860 ug/L	191860 ppb	09:25:28
1	K 766.490 Radial†	2536.6	-160.6	-191.64 ug/L	-191.64 ppb	09:25:23
1	Mg 279.077 IEC†	13582.5	15004.5	493390 ug/L	493390 ppb	09:25:28
1	Na 589.592 Radial†	-952.3	98.1	31.978 ug/L	31.978 ppb	09:25:28
1	Sr 421.552†	522.8	563.9	0.0432 ug/L	0.0432 ppb	09:25:28
1	Sc 361.383	732035.2	732035.2	88.531 %		09:25:55
1	Y 371.029	580308.1	580308.1	86.950 %		09:25:55
1	Ag 328.068†	-9449.8	-10971.2	5.1648 ug/L	5.1648 ppb	09:25:55
1	As 188.979†	-97.5	-79.5	10.526 ug/L	10.526 ppb	09:26:16
1	B 249.677†	229.7	854.4	-10.816 ug/L	-10.816 ppb	09:25:55
1	Ba 233.527†	-699.4	-779.7	-0.3426 ug/L	-0.3426 ppb	09:26:16
1	Be 313.107†	-4071.2	-898.4	-0.3797 ug/L	-0.3797 ppb	09:25:55
1	Cd 226.502†	1079.0	1434.8	-3.0582 ug/L	-3.0582 ppb	09:26:16
1	Co 228.616†	-26.1	53.9	-1.6641 ug/L	-1.6641 ppb	09:26:16
1	Cr 267.716†	-141.2	-226.1	1.0483 ug/L	1.0483 ppb	09:26:16
1	Cu 324.752†	1667.3	-2837.6	1.4100 ug/L	1.4100 ppb	09:25:55
1	Mn 257.610†	245.8	-192.2	-1.4475 ug/L	-1.4475 ppb	09:25:55
1	Mo 202.031†	-223.3	-264.1	0.8194 ug/L	0.8194 ppb	09:26:16
1	Ni 231.604†	231.5	184.5	4.7284 ug/L	4.7284 ppb	09:26:16
1	P 214.914†	203.4	-17.3	-32.023 ug/L	-32.023 ppb	09:26:16
1	Pb 220.353†	-869.8	-915.4	-8.5655 ug/L	-8.5655 ppb	09:26:16
1	S 181.975 Axial†	69.9	31.2	-56.137 ug/L	-56.137 ppb	09:26:16
1	Sb 206.836†	71.8	46.0	-1.7982 ug/L	-1.7982 ppb	09:26:16
1	Se 196.026†	-916.8	-1010.2	-24.538 ug/L	-24.538 ppb	09:26:16
1	Si 251.611†	469.1	-1.5	0.1971 ug/L	0.1971 ppb	09:26:16
1	Sn 189.927†	-350.9	-405.9	4.1731 ug/L	4.1731 ppb	09:26:16
1	Ti 334.940†	-13856.6	-14080.9	2.5541 ug/L	2.5541 ppb	09:25:55
1	Tl 190.801†	-62.8	-36.6	-11.575 ug/L	-11.575 ppb	09:26:16
1	U 409.014†	-2073.2	1270.2	18.016 ug/L	18.016 ppb	09:25:55
1	V 292.402†	492.9	2146.9	-2.5627 ug/L	-2.5627 ppb	09:26:16
1	Zn 213.857†	2987.0	2645.4	-3.4311 ug/L	-3.4311 ppb	09:26:16
1	SiO2†	417.7	-60.6	-3.6867 ug/L	-3.6867 ppb	09:27:12
2	Sc Radial	4426.7	4426.7	89.9 %		09:25:39
2	Y RADIAL	4739.7	4739.7	91.39 %		09:25:39
2	Al 396.153Radial†	545564.4	606907.8	526300 ug/L	526300 ppb	09:25:33
2	Ca 317.933Radial†	280503.4	311944.3	488930 ug/L	488930 ppb	09:25:33
2	Fe 238.204 Radial†	18863.8	20967.8	191040 ug/L	191040 ppb	09:25:39
2	K 766.490 Radial†	2641.7	-25.0	-167.91 ug/L	-167.91 ppb	09:25:33
2	Mg 279.077 IEC†	13484.3	14995.2	493080 ug/L	493080 ppb	09:25:39
2	Na 589.592 Radial†	-925.0	121.5	39.601 ug/L	39.601 ppb	09:25:39
2	Sr 421.552†	530.9	576.8	0.1300 ug/L	0.1300 ppb	09:25:39
2	Sc 361.383	737827.3	737827.3	89.231 %		09:26:21
2	Y 371.029	585236.6	585236.6	87.688 %		09:26:21
2	Ag 328.068†	-9676.3	-11141.2	4.0729 ug/L	4.0729 ppb	09:26:21
2	As 188.979†	-96.4	-77.4	11.228 ug/L	11.228 ppb	09:26:41
2	B 249.677†	237.3	861.0	-10.527 ug/L	-10.527 ppb	09:26:21
2	Ba 233.527†	-684.5	-756.8	-0.1848 ug/L	-0.1848 ppb	09:26:41
2	Be 313.107†	-4120.8	-917.8	-0.3865 ug/L	-0.3865 ppb	09:26:21
2	Cd 226.502†	1080.4	1426.9	-3.0670 ug/L	-3.0670 ppb	09:26:41
2	Co 228.616†	-24.7	55.6	-1.6164 ug/L	-1.6164 ppb	09:26:41
2	Cr 267.716†	-112.8	-193.1	1.4259 ug/L	1.4259 ppb	09:26:41
2	Cu 324.752†	1665.8	-2854.1	1.3168 ug/L	1.3168 ppb	09:26:21
2	Mn 257.610†	368.1	-57.3	-1.3649 ug/L	-1.3649 ppb	09:26:21
2	Mo 202.031†	-224.9	-263.8	0.7706 ug/L	0.7706 ppb	09:26:41
2	Ni 231.604†	214.7	163.6	4.1926 ug/L	4.1926 ppb	09:26:41

2	P 214.914†	202.4	-20.2	-33.420 ug/L	-33.420 ppb	09:26:41
2	Pb 220.353†	-811.6	-842.4	0.1065 ug/L	0.1065 ppb	09:26:41
2	S 181.975 Axial†	59.9	19.3	-72.141 ug/L	-72.141 ppb	09:26:41
2	Sb 206.836†	78.4	52.7	0.6610 ug/L	0.6610 ppb	09:26:41
2	Se 196.026†	-903.5	-987.2	-12.207 ug/L	-12.207 ppb	09:26:41
2	Si 251.611†	460.1	-15.7	-0.2699 ug/L	-0.2699 ppb	09:26:41
2	Sn 189.927†	-333.0	-382.7	8.3085 ug/L	8.3085 ppb	09:26:41
2	Ti 334.940†	-13886.3	-13991.2	2.6845 ug/L	2.6845 ppb	09:26:21
2	Tl 190.801†	-71.6	-45.9	-14.457 ug/L	-14.457 ppb	09:26:41
2	U 409.014†	-2141.0	1212.5	16.298 ug/L	16.298 ppb	09:26:21
2	V 292.402†	524.1	2177.6	-2.2236 ug/L	-2.2236 ppb	09:26:41
2	Zn 213.857†	3020.7	2656.7	-3.1970 ug/L	-3.1970 ppb	09:26:41
2	SiO2†	397.6	-86.7	-5.5114 ug/L	-5.5114 ppb	09:27:17
3	Sc Radial	4470.1	4470.1	90.8 %		09:25:49
3	Y RADIAL	4775.7	4775.7	92.08 %		09:25:49
3	Al 396.153Radial†	547547.7	603196.4	523080 ug/L	523080 ppb	09:25:44
3	Ca 317.933Radial†	280732.5	309165.4	484580 ug/L	484580 ppb	09:25:44
3	Fe 238.204 Radial†	19031.4	20948.5	190860 ug/L	190860 ppb	09:25:49
3	K 766.490 Radial†	2547.1	-157.8	-189.60 ug/L	-189.60 ppb	09:25:44
3	Mg 279.077 IEC†	13608.5	14986.3	492790 ug/L	492790 ppb	09:25:49
3	Na 589.592 Radial†	-980.8	70.0	22.827 ug/L	22.827 ppb	09:25:49
3	Sr 421.552†	544.2	585.6	0.2205 ug/L	0.2205 ppb	09:25:49
3	Sc 361.383	733788.6	733788.6	88.743 %		09:26:46
3	Y 371.029	580353.3	580353.3	86.957 %		09:26:46
3	Ag 328.068†	-9743.9	-11277.0	3.4056 ug/L	3.4056 ppb	09:26:46
3	As 188.979†	-90.5	-71.3	13.829 ug/L	13.829 ppb	09:27:07
3	B 249.677†	144.6	758.0	-12.952 ug/L	-12.952 ppb	09:26:46
3	Ba 233.527†	-681.1	-757.2	-0.1942 ug/L	-0.1942 ppb	09:27:07
3	Be 313.107†	-4102.1	-922.1	-0.3877 ug/L	-0.3877 ppb	09:26:46
3	Cd 226.502†	1103.9	1460.0	-2.6593 ug/L	-2.6593 ppb	09:27:07
3	Co 228.616†	-13.8	67.8	-1.3650 ug/L	-1.3650 ppb	09:27:07
3	Cr 267.716†	-136.0	-219.9	1.0981 ug/L	1.0981 ppb	09:27:07
3	Cu 324.752†	1834.8	-2653.4	1.9181 ug/L	1.9181 ppb	09:26:46
3	Mn 257.610†	324.8	-103.8	-1.4224 ug/L	-1.4224 ppb	09:26:46
3	Mo 202.031†	-230.5	-271.6	0.1248 ug/L	0.1248 ppb	09:27:07
3	Ni 231.604†	242.6	196.3	5.0312 ug/L	5.0312 ppb	09:27:07
3	P 214.914†	206.5	-14.3	-30.801 ug/L	-30.801 ppb	09:27:07
3	Pb 220.353†	-844.9	-884.9	-5.8580 ug/L	-5.8580 ppb	09:27:07
3	S 181.975 Axial†	59.2	19.0	-71.984 ug/L	-71.984 ppb	09:27:07
3	Sb 206.836†	59.7	32.2	-6.4628 ug/L	-6.4628 ppb	09:27:07
3	Se 196.026†	-909.6	-999.6	-21.021 ug/L	-21.021 ppb	09:27:07
3	Si 251.611†	414.0	-64.8	-1.8692 ug/L	-1.8692 ppb	09:27:07
3	Sn 189.927†	-345.6	-398.9	4.7096 ug/L	4.7096 ppb	09:27:07
3	Ti 334.940†	-13723.0	-13892.9	2.2779 ug/L	2.2779 ppb	09:26:46
3	Tl 190.801†	-76.7	-52.1	-16.382 ug/L	-16.382 ppb	09:27:07
3	U 409.014†	-1790.2	1594.6	28.316 ug/L	28.316 ppb	09:26:46
3	V 292.402†	475.2	2125.6	-2.5767 ug/L	-2.5767 ppb	09:27:07
3	Zn 213.857†	2987.7	2638.1	-3.3541 ug/L	-3.3541 ppb	09:27:07
3	SiO2†	448.5	-27.0	-1.3267 ug/L	-1.3267 ppb	09:27:22

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	734550.4	88.835 %	0.3592			0.40%
Sc Radial	4451.0	90.4 %	0.45			0.50%
Y 371.029	581966.0	87.198 %	0.4244			0.49%
Y RADIAL	4751.4	91.61 %	0.405			0.44%
Ag 328.068†	-11129.8	4.2145 ug/L	0.88811	4.2145 ppb	0.88811	21.07%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	606294.7	525770 ug/L	2464.4	525770 ppb	2464.4	0.47%
QC value within limits for Al 396.153Radial Recovery = 105.15%						
As 188.979†	-76.1	11.861 ug/L	1.7405	11.861 ppb	1.7405	14.67%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	824.5	-11.431 ug/L	1.3247	-11.431 ppb	1.3247	11.59%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-764.6	-0.2405 ug/L	0.08853	-0.2405 ppb	0.08853	36.81%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-912.7	-0.3846 ug/L	0.00430	-0.3846 ppb	0.00430	1.12%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	311081.3	487580 ug/L	2604.9	487580 ppb	2604.9	0.53%

QC value within limits for Ca 317.933 Radial Recovery = 97.52%

Cd	226.502†	1440.6	-2.9282 ug/L	0.23290	-2.9282 ppb	0.23290	7.95%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	59.1	-1.5485 ug/L	0.16070	-1.5485 ppb	0.16070	10.38%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-213.1	1.1908 ug/L	0.20515	1.1908 ppb	0.20515	17.23%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-2781.7	1.5483 ug/L	0.32359	1.5483 ppb	0.32359	20.90%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	20991.4	191250 ug/L	531.8	191250 ppb	531.8	0.28%
QC value within limits for Fe 238.204 Radial Recovery = 95.63%							
K	766.490 Radial†	-114.5	-183.05 ug/L	13.153	-183.05 ppb	13.153	7.19%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	14995.3	493090 ug/L	298.5	493090 ppb	298.5	0.06%
QC value within limits for Mg 279.077 IEC Recovery = 98.62%							
Mn	257.610†	-117.8	-1.4116 ug/L	0.04234	-1.4116 ppb	0.04234	3.00%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	-266.5	0.5716 ug/L	0.38769	0.5716 ppb	0.38769	67.82%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	96.6	31.469 ug/L	8.3986	31.469 ppb	8.3986	26.69%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	181.5	4.6507 ug/L	0.42467	4.6507 ppb	0.42467	9.13%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-17.3	-32.081 ug/L	1.3103	-32.081 ppb	1.3103	4.08%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-880.9	-4.7724 ug/L	4.43676	-4.7724 ppb	4.43676	92.97%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	23.2	-66.754 ug/L	9.1951	-66.754 ppb	9.1951	13.77%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	43.6	-2.5333 ug/L	3.61831	-2.5333 ppb	3.61831	142.83%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-999.0	-19.255 ug/L	6.3522	-19.255 ppb	6.3522	32.99%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	-27.3	-0.6473 ug/L	1.08361	-0.6473 ppb	1.08361	167.40%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-395.8	5.7304 ug/L	2.24871	5.7304 ppb	2.24871	39.24%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	575.4	0.1312 ug/L	0.08866	0.1312 ppb	0.08866	67.58%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-13988.3	2.5055 ug/L	0.20763	2.5055 ppb	0.20763	8.29%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-44.9	-14.138 ug/L	2.4196	-14.138 ppb	2.4196	17.11%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	1359.1	20.877 ug/L	6.4999	20.877 ppb	6.4999	31.13%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	2150.0	-2.4543 ug/L	0.19990	-2.4543 ppb	0.19990	8.14%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	2646.7	-3.3274 ug/L	0.11931	-3.3274 ppb	0.11931	3.59%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		-58.1	-3.5083 ug/L	2.09801	-3.5083 ppb	2.09801	59.80%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 14  
 Date Collected: 2/12/2010 09:29:34  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4484.3	4484.3	91.1 %			09:31:32
1	Y RADIAL	4785.4	4785.4	92.27 %			09:31:32
1	Al 396.153Radial†	553045.8	607331.4	526640 ug/L		526640 ppb	09:31:27
1	Ca 317.933Radial†	278494.7	305733.9	479200 ug/L		479200 ppb	09:31:27
1	Fe 238.204 Radial†	18797.9	20626.1	187940 ug/L		187940 ppb	09:31:32
1	K 766.490 Radial†	30159.6	30148.1	5093.2 ug/L		5093.2 ppb	09:31:27
1	Mg 279.077 IEC†	13276.3	14574.4	479250 ug/L		479250 ppb	09:31:32
1	Na 589.592 Radial†	15010.3	17629.5	5745.4 ug/L		5745.4 ppb	09:31:32
1	Sr 421.552†	71462.7	78442.6	510.60 ug/L		510.60 ppb	09:31:27
1	Sc 361.383	752765.0	752765.0	91.038 %			09:32:00
1	Y 371.029	594756.7	594756.7	89.115 %			09:32:00
1	Ag 328.068†	40650.9	44355.8	272.78 ug/L		272.78 ppb	09:32:00
1	As 188.979†	936.2	1059.0	503.75 ug/L		503.75 ppb	09:32:20
1	B 249.677†	19580.7	22103.4	494.54 ug/L		494.54 ppb	09:32:00
1	Ba 233.527†	54391.1	59756.0	483.18 ug/L		483.18 ppb	09:32:00
1	Be 313.107†	598158.2	660745.7	242.42 ug/L		242.42 ppb	09:32:00
1	Cd 226.502†	36314.5	40105.7	449.13 ug/L		449.13 ppb	09:32:20
1	Co 228.616†	19077.7	21039.2	429.90 ug/L		429.90 ppb	09:32:20
1	Cr 267.716†	36726.5	40275.5	482.82 ug/L		482.82 ppb	09:32:00
1	Cu 324.752†	160613.6	171704.6	537.49 ug/L		537.49 ppb	09:32:00
1	Mn 257.610†	383557.8	420848.2	470.52 ug/L		470.52 ppb	09:32:00
1	Mo 202.031†	5560.8	6096.4	479.56 ug/L		479.56 ppb	09:32:20
1	Ni 231.604†	15882.2	17368.8	444.89 ug/L		444.89 ppb	09:32:20
1	P 214.914†	3938.3	4079.0	2279.8 ug/L		2279.8 ppb	09:32:20
1	Pb 220.353†	2505.8	2819.6	450.07 ug/L		450.07 ppb	09:32:20
1	S 181.975 Axial†	1762.3	1888.1	2492.1 ug/L		2492.1 ppb	09:32:20
1	Sb 206.836†	1433.5	1539.5	535.04 ug/L		535.04 ppb	09:32:20
1	Se 196.026†	2524.7	2798.7	2453.3 ug/L		2453.3 ppb	09:32:20
1	Si 251.611†	142091.0	155548.2	5082.5 ug/L		5082.5 ppb	09:32:00
1	Sn 189.927†	2040.3	2231.6	479.57 ug/L		479.57 ppb	09:32:20
1	Ti 334.940†	272790.9	301217.4	511.00 ug/L		511.00 ppb	09:32:00
1	Tl 190.801†	1222.1	1376.8	430.27 ug/L		430.27 ppb	09:32:20
1	U 409.014†	12085.0	16886.7	507.72 ug/L		507.72 ppb	09:32:00
1	V 292.402†	61128.7	68736.9	501.85 ug/L		501.85 ppb	09:32:00
1	Zn 213.857†	49415.0	53551.1	480.46 ug/L		480.46 ppb	09:32:00
1	SiO2†	141522.0	154922.1	10797 ug/L		10797 ppb	09:33:17
2	Sc Radial	4522.2	4522.2	91.9 %			09:31:42
2	Y RADIAL	4824.5	4824.5	93.02 %			09:31:42
2	Al 396.153Radial†	553815.3	603073.1	522950 ug/L		522950 ppb	09:31:37
2	Ca 317.933Radial†	283539.1	308659.3	483780 ug/L		483780 ppb	09:31:37
2	Fe 238.204 Radial†	19284.7	20982.8	191190 ug/L		191190 ppb	09:31:42
2	K 766.490 Radial†	30565.2	30311.8	5120.2 ug/L		5120.2 ppb	09:31:37
2	Mg 279.077 IEC†	13869.1	15097.4	496450 ug/L		496450 ppb	09:31:42
2	Na 589.592 Radial†	15249.5	17751.6	5785.2 ug/L		5785.2 ppb	09:31:42
2	Sr 421.552†	70893.4	77164.3	502.19 ug/L		502.19 ppb	09:31:37
2	Sc 361.383	748621.9	748621.9	90.537 %			09:32:26
2	Y 371.029	592706.6	592706.6	88.808 %			09:32:26
2	Ag 328.068†	40236.2	44144.8	272.79 ug/L		272.79 ppb	09:32:26
2	As 188.979†	935.7	1064.2	506.72 ug/L		506.72 ppb	09:32:46
2	B 249.677†	19486.7	22118.6	494.37 ug/L		494.37 ppb	09:32:26
2	Ba 233.527†	54014.2	59670.4	482.60 ug/L		482.60 ppb	09:32:26
2	Be 313.107†	595255.4	661175.7	242.57 ug/L		242.57 ppb	09:32:26
2	Cd 226.502†	36387.8	40407.3	452.31 ug/L		452.31 ppb	09:32:46
2	Co 228.616†	19080.5	21158.3	432.31 ug/L		432.31 ppb	09:32:46
2	Cr 267.716†	36462.9	40207.6	482.07 ug/L		482.07 ppb	09:32:26
2	Cu 324.752†	159403.3	171344.3	536.55 ug/L		536.55 ppb	09:32:26
2	Mn 257.610†	380679.5	420000.8	469.18 ug/L		469.18 ppb	09:32:26
2	Mo 202.031†	5540.5	6107.8	480.72 ug/L		480.72 ppb	09:32:46
2	Ni 231.604†	15881.0	17464.0	447.33 ug/L		447.33 ppb	09:32:46

2	P 214.914†	3982.5	4151.7	2319.3 ug/L	2319.3 ppb	09:32:46
2	Pb 220.353†	2485.2	2812.1	448.14 ug/L	448.14 ppb	09:32:46
2	S 181.975 Axial†	1760.4	1896.6	2504.6 ug/L	2504.6 ppb	09:32:46
2	Sb 206.836†	1418.4	1531.5	532.39 ug/L	532.39 ppb	09:32:46
2	Se 196.026†	2507.6	2795.1	2461.3 ug/L	2461.3 ppb	09:32:46
2	Si 251.611†	141110.2	155328.6	5075.3 ug/L	5075.3 ppb	09:32:26
2	Sn 189.927†	2036.8	2240.2	481.87 ug/L	481.87 ppb	09:32:46
2	Ti 334.940†	271024.7	300924.9	509.74 ug/L	509.74 ppb	09:32:26
2	Tl 190.801†	1208.6	1369.3	427.93 ug/L	427.93 ppb	09:32:46
2	U 409.014†	12207.1	17095.0	513.89 ug/L	513.89 ppb	09:32:26
2	V 292.402†	60832.5	68781.4	502.06 ug/L	502.06 ppb	09:32:26
2	Zn 213.857†	49112.8	53517.8	479.64 ug/L	479.64 ppb	09:32:26
2	SiO2†	141199.6	155426.3	10832 ug/L	10832 ppb	09:33:22
3	Sc Radial	4460.9	4460.9	90.6 %		09:31:52
3	Y RADIAL	4763.5	4763.5	91.85 %		09:31:52
3	Al 396.153Radial†	551834.7	609179.9	528240 ug/L	528240 ppb	09:31:47
3	Ca 317.933Radial†	282427.7	311678.3	488520 ug/L	488520 ppb	09:31:47
3	Fe 238.204 Radial†	18963.9	20917.6	190590 ug/L	190590 ppb	09:31:52
3	K 766.490 Radial†	30405.9	30593.7	5167.7 ug/L	5167.7 ppb	09:31:47
3	Mg 279.077 IEC†	13609.2	15018.2	493840 ug/L	493840 ppb	09:31:52
3	Na 589.592 Radial†	14900.1	17594.3	5733.9 ug/L	5733.9 ppb	09:31:52
3	Sr 421.552†	71008.3	78352.6	509.95 ug/L	509.95 ppb	09:31:47
3	Sc 361.383	744503.1	744503.1	90.038 %		09:32:52
3	Y 371.029	589308.0	589308.0	88.298 %		09:32:52
3	Ag 328.068†	40066.8	44202.5	272.81 ug/L	272.81 ppb	09:32:52
3	As 188.979†	961.4	1098.4	521.34 ug/L	521.34 ppb	09:33:12
3	B 249.677†	19279.0	22007.0	491.80 ug/L	491.80 ppb	09:32:52
3	Ba 233.527†	53853.4	59821.8	483.79 ug/L	483.79 ppb	09:32:52
3	Be 313.107†	593361.0	662709.0	243.13 ug/L	243.13 ppb	09:32:52
3	Cd 226.502†	36329.6	40565.1	454.22 ug/L	454.22 ppb	09:33:12
3	Co 228.616†	19090.3	21285.7	434.94 ug/L	434.94 ppb	09:33:12
3	Cr 267.716†	36464.9	40432.7	484.74 ug/L	484.74 ppb	09:32:52
3	Cu 324.752†	158261.6	171050.3	535.62 ug/L	535.62 ppb	09:32:52
3	Mn 257.610†	379270.3	420761.8	470.08 ug/L	470.08 ppb	09:32:52
3	Mo 202.031†	5526.0	6125.5	482.07 ug/L	482.07 ppb	09:33:12
3	Ni 231.604†	15855.3	17532.5	449.08 ug/L	449.08 ppb	09:33:12
3	P 214.914†	3960.7	4151.8	2321.4 ug/L	2321.4 ppb	09:33:12
3	Pb 220.353†	2492.3	2835.2	452.26 ug/L	452.26 ppb	09:33:12
3	S 181.975 Axial†	1742.0	1886.9	2490.2 ug/L	2490.2 ppb	09:33:12
3	Sb 206.836†	1409.8	1530.6	532.00 ug/L	532.00 ppb	09:33:12
3	Se 196.026†	2496.1	2797.7	2461.3 ug/L	2461.3 ppb	09:33:12
3	Si 251.611†	140280.5	155269.4	5073.3 ug/L	5073.3 ppb	09:32:52
3	Sn 189.927†	2039.6	2255.7	485.39 ug/L	485.39 ppb	09:33:12
3	Ti 334.940†	269594.6	300992.7	510.70 ug/L	510.70 ppb	09:32:52
3	Tl 190.801†	1217.2	1386.2	433.17 ug/L	433.17 ppb	09:33:12
3	U 409.014†	11986.7	16924.8	508.61 ug/L	508.61 ppb	09:32:52
3	V 292.402†	60565.1	68856.1	502.66 ug/L	502.66 ppb	09:32:52
3	Zn 213.857†	48900.9	53582.6	480.34 ug/L	480.34 ppb	09:32:52
3	SiO2†	140822.7	155870.6	10863 ug/L	10863 ppb	09:33:28

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	748630.0	90.538 %	0.4996			0.55%
Sc Radial	4489.1	91.2 %	0.63			0.69%
Y 371.029	592257.1	88.740 %	0.4123			0.46%
Y RADIAL	4791.1	92.38 %	0.595			0.64%
Ag 328.068†	44234.4	272.79 ug/L	0.016	272.79 ppb	0.016	0.01%
QC value within limits for Ag 328.068 Recovery = 109.12%						
Al 396.153Radial†	606528.2	525950 ug/L	2715.7	525950 ppb	2715.7	0.52%
QC value within limits for Al 396.153Radial Recovery = 105.19%						
As 188.979†	1073.9	510.60 ug/L	9.415	510.60 ppb	9.415	1.84%
QC value within limits for As 188.979 Recovery = 102.12%						
B 249.677†	22076.4	493.57 ug/L	1.535	493.57 ppb	1.535	0.31%
QC value within limits for B 249.677 Recovery = 98.71%						
Ba 233.527†	59749.4	483.19 ug/L	0.595	483.19 ppb	0.595	0.12%
QC value within limits for Ba 233.527 Recovery = 96.64%						
Be 313.107†	661543.5	242.71 ug/L	0.377	242.71 ppb	0.377	0.16%
QC value within limits for Be 313.107 Recovery = 97.08%						
Ca 317.933Radial†	308690.5	483830 ug/L	4658.7	483830 ppb	4658.7	0.96%



QC value within limits for Ca 317.933 Radial Recovery = 96.77%

Cd 226.502†	40359.3	451.89 ug/L	2.572	451.89 ppb	2.572	0.57%
QC value within limits for Cd 226.502 Recovery = 90.38%						
Co 228.616†	21161.1	432.38 ug/L	2.518	432.38 ppb	2.518	0.58%
QC value within limits for Co 228.616 Recovery = 86.48%						
Cr 267.716†	40305.3	483.21 ug/L	1.375	483.21 ppb	1.375	0.28%
QC value within limits for Cr 267.716 Recovery = 96.64%						
Cu 324.752†	171366.4	536.55 ug/L	0.936	536.55 ppb	0.936	0.17%
QC value within limits for Cu 324.752 Recovery = 107.31%						
Fe 238.204 Radial†	20842.2	189910 ug/L	1730.6	189910 ppb	1730.6	0.91%
QC value within limits for Fe 238.204 Radial Recovery = 94.95%						
K 766.490 Radial†	30351.2	5127.0 ug/L	37.76	5127.0 ppb	37.76	0.74%
QC value within limits for K 766.490 Radial Recovery = 102.54%						
Mg 279.077 IEC†	14896.6	489850 ug/L	9271.0	489850 ppb	9271.0	1.89%
QC value within limits for Mg 279.077 IEC Recovery = 97.97%						
Mn 257.610†	420536.9	469.93 ug/L	0.680	469.93 ppb	0.680	0.14%
QC value within limits for Mn 257.610 Recovery = 93.99%						
Mo 202.031†	6109.9	480.78 ug/L	1.257	480.78 ppb	1.257	0.26%
QC value within limits for Mo 202.031 Recovery = 96.16%						
Na 589.592 Radial†	17658.5	5754.9 ug/L	26.90	5754.9 ppb	26.90	0.47%
QC value within limits for Na 589.592 Radial Recovery = 115.10%						
Ni 231.604†	17455.1	447.10 ug/L	2.105	447.10 ppb	2.105	0.47%
QC value within limits for Ni 231.604 Recovery = 89.42%						
P 214.914†	4127.5	2306.8 ug/L	23.43	2306.8 ppb	23.43	1.02%
QC value within limits for P 214.914 Recovery = 92.27%						
Pb 220.353†	2822.3	450.15 ug/L	2.061	450.15 ppb	2.061	0.46%
QC value within limits for Pb 220.353 Recovery = 90.03%						
S 181.975 Axial†	1890.5	2495.7 ug/L	7.81	2495.7 ppb	7.81	0.31%
QC value within limits for S 181.975 Axial Recovery = 99.83%						
Sb 206.836†	1533.9	533.15 ug/L	1.654	533.15 ppb	1.654	0.31%
QC value within limits for Sb 206.836 Recovery = 106.63%						
Se 196.026†	2797.1	2458.6 ug/L	4.60	2458.6 ppb	4.60	0.19%
QC value within limits for Se 196.026 Recovery = 98.35%						
Si 251.611†	155382.1	5077.0 ug/L	4.82	5077.0 ppb	4.82	0.09%
QC value within limits for Si 251.611 Recovery = 101.54%						
Sn 189.927†	2242.5	482.27 ug/L	2.931	482.27 ppb	2.931	0.61%
QC value within limits for Sn 189.927 Recovery = 96.45%						
Sr 421.552†	77986.5	507.58 ug/L	4.679	507.58 ppb	4.679	0.92%
QC value within limits for Sr 421.552 Recovery = 101.52%						
Ti 334.940†	301045.0	510.48 ug/L	0.660	510.48 ppb	0.660	0.13%
QC value within limits for Ti 334.940 Recovery = 102.10%						
Tl 190.801†	1377.4	430.46 ug/L	2.628	430.46 ppb	2.628	0.61%
QC value within limits for Tl 190.801 Recovery = 86.09%						
U 409.014†	16968.8	510.07 ug/L	3.336	510.07 ppb	3.336	0.65%
QC value within limits for U 409.014 Recovery = 102.01%						
V 292.402†	68791.5	502.19 ug/L	0.424	502.19 ppb	0.424	0.08%
QC value within limits for V 292.402 Recovery = 100.44%						
Zn 213.857†	53550.5	480.15 ug/L	0.442	480.15 ppb	0.442	0.09%
QC value within limits for Zn 213.857 Recovery = 96.03%						
SiO2†	155406.3	10831 ug/L	33.1	10831 ppb	33.1	0.31%
QC value within limits for SiO2 Recovery = 101.27%						

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: LR1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 15  
 Date Collected: 2/12/2010 09:35:37  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4318.9	4318.9	87.7 %		09:37:35
1	Y RADIAL	4608.5	4608.5	88.86 %		09:37:35
1	Al 396.153Radial†	526200.1	599981.9	520290 ug/L	520290 ppb	09:37:30
1	Ca 317.933Radial†	264617.0	301623.6	472760 ug/L	472760 ppb	09:37:30
1	Fe 238.204 Radial†	41698.7	47521.1	432970 ug/L	432970 ppb	09:37:35
1	K 766.490 Radial†	2638.3	44.5	-350.28 ug/L	-350.28 ppb	09:37:30
1	Mg 279.077 IEC†	12599.2	14360.6	471950 ug/L	471950 ppb	09:37:35
1	Na 589.592 Radial†	1378766.6	1572814.4	512580 ug/L	512580 ppb	09:37:30
1	Sr 421.552†	759.7	852.3	2.0565 ug/L	2.0565 ppb	09:37:35
1	Sc 361.383	718931.8	718931.8	86.946 %		09:38:03
1	Y 371.029	572199.8	572199.8	85.735 %		09:38:03
1	Ag 328.068†	-22280.1	-25922.4	3.3758 ug/L	3.3758 ppb	09:38:03
1	As 188.979†	-192.3	-190.5	19.241 ug/L	19.241 ppb	09:38:23
1	B 249.677†	1047.0	1799.2	-27.493 ug/L	-27.493 ppb	09:38:03
1	Ba 233.527†	-1768.2	-2023.4	-2.8904 ug/L	-2.8904 ppb	09:38:23
1	Be 313.107†	-9371.5	-7078.2	-2.6252 ug/L	-2.6252 ppb	09:38:03
1	Cd 226.502†	2897.8	3548.9	-0.5999 ug/L	-0.5999 ppb	09:38:23
1	Co 228.616†	244.8	364.9	1.1798 ug/L	1.1798 ppb	09:38:23
1	Cr 267.716†	-89.3	-169.4	0.9616 ug/L	0.9616 ppb	09:38:23
1	Cu 324.752†	-802.2	-5643.6	-2.0875 ug/L	-2.0875 ppb	09:38:03
1	Mn 257.610†	-22610.6	-26475.3	-6.2180 ug/L	-6.2180 ppb	09:38:03
1	Mo 202.031†	-482.9	-567.3	-3.4978 ug/L	-3.4978 ppb	09:38:23
1	Ni 231.604†	255.6	217.0	5.5568 ug/L	5.5568 ppb	09:38:23
1	P 214.914†	565.5	403.4	21.141 ug/L	21.141 ppb	09:38:23
1	Pb 220.353†	-615.2	-640.4	0.1065 ug/L	0.1065 ppb	09:38:23
1	S 181.975 Axial†	90.4	56.1	-20.481 ug/L	-20.481 ppb	09:38:23
1	Sb 206.836†	84.9	62.5	0.9304 ug/L	0.9304 ppb	09:38:23
1	Se 196.026†	-2099.8	-2389.6	-149.47 ug/L	-149.47 ppb	09:38:23
1	Si 251.611†	-557.3	-1172.3	-37.822 ug/L	-37.822 ppb	09:38:23
1	Sn 189.927†	-370.1	-435.2	0.4308 ug/L	0.4308 ppb	09:38:23
1	Ti 334.940†	-10899.6	-10965.1	1.0491 ug/L	1.0491 ppb	09:38:03
1	Tl 190.801†	-115.8	-98.8	-31.017 ug/L	-31.017 ppb	09:38:23
1	U 409.014†	379791.3	440425.4	13779 ug/L	13779 ppb	09:38:03
1	V 292.402†	2074.6	3976.3	1.6304 ug/L	1.6304 ppb	09:38:23
1	Zn 213.857†	5353.2	5428.3	-12.893 ug/L	-12.893 ppb	09:38:23
1	SiO2†	-583.6	-1203.6	-82.813 ug/L	-82.813 ppb	09:39:20
2	Sc Radial	4346.1	4346.1	88.3 %		09:37:46
2	Y RADIAL	4673.7	4673.7	90.12 %		09:37:46
2	Al 396.153Radial†	527255.2	597410.8	518060 ug/L	518060 ppb	09:37:41
2	Ca 317.933Radial†	263926.1	298946.9	468560 ug/L	468560 ppb	09:37:41
2	Fe 238.204 Radial†	42187.5	47776.4	435290 ug/L	435290 ppb	09:37:46
2	K 766.490 Radial†	2673.2	65.1	-343.66 ug/L	-343.66 ppb	09:37:41
2	Mg 279.077 IEC†	12736.1	14425.6	474090 ug/L	474090 ppb	09:37:46
2	Na 589.592 Radial†	1376186.6	1560023.4	508410 ug/L	508410 ppb	09:37:41
2	Sr 421.552†	725.1	807.7	1.7959 ug/L	1.7959 ppb	09:37:46
2	Sc 361.383	709798.8	709798.8	85.841 %		09:38:29
2	Y 371.029	563768.8	563768.8	84.472 %		09:38:29
2	Ag 328.068†	-22111.6	-26055.8	3.5129 ug/L	3.5129 ppb	09:38:29
2	As 188.979†	-182.0	-181.4	23.707 ug/L	23.707 ppb	09:38:49
2	B 249.677†	1107.2	1884.9	-25.827 ug/L	-25.827 ppb	09:38:29
2	Ba 233.527†	-1750.2	-2028.7	-2.8620 ug/L	-2.8620 ppb	09:38:49
2	Be 313.107†	-9340.1	-7180.3	-2.6581 ug/L	-2.6581 ppb	09:38:29
2	Cd 226.502†	2856.7	3544.0	-0.8835 ug/L	-0.8835 ppb	09:38:49
2	Co 228.616†	186.6	300.7	-0.1751 ug/L	-0.1751 ppb	09:38:49
2	Cr 267.716†	-72.2	-150.8	1.1983 ug/L	1.1983 ppb	09:38:49
2	Cu 324.752†	-720.3	-5560.1	-1.7487 ug/L	-1.7487 ppb	09:38:29
2	Mn 257.610†	-22151.5	-26275.1	-5.8514 ug/L	-5.8514 ppb	09:38:29
2	Mo 202.031†	-460.2	-547.9	-1.9124 ug/L	-1.9124 ppb	09:38:49
2	Ni 231.604†	252.1	216.7	5.5502 ug/L	5.5502 ppb	09:38:49

2	P 214.914†	542.7	385.2	7.9412 ug/L	7.9412 ppb	09:38:49
2	Pb 220.353†	-594.5	-625.4	1.1788 ug/L	1.1788 ppb	09:38:49
2	S 181.975 Axial†	80.8	46.4	-33.467 ug/L	-33.467 ppb	09:38:49
2	Sb 206.836†	53.6	27.3	-11.295 ug/L	-11.295 ppb	09:38:49
2	Se 196.026†	-2075.5	-2392.5	-143.91 ug/L	-143.91 ppb	09:38:49
2	Si 251.611†	-535.8	-1155.5	-37.289 ug/L	-37.289 ppb	09:38:49
2	Sn 189.927†	-377.1	-448.8	-2.6386 ug/L	-2.6386 ppb	09:38:49
2	Ti 334.940†	-9721.0	-9753.5	2.2354 ug/L	2.2354 ppb	09:38:29
2	Tl 190.801†	-107.1	-90.5	-28.399 ug/L	-28.399 ppb	09:38:49
2	U 409.014†	376994.9	442788.2	13853 ug/L	13853 ppb	09:38:29
2	V 292.402†	2049.3	3977.6	1.5027 ug/L	1.5027 ppb	09:38:49
2	Zn 213.857†	5321.1	5470.2	-12.840 ug/L	-12.840 ppb	09:38:49
2	SiO2†	-567.6	-1193.6	-82.161 ug/L	-82.161 ppb	09:39:25
3	Sc Radial	4364.5	4364.5	88.7 %		09:37:56
3	Y RADIAL	4657.4	4657.4	89.80 %		09:37:56
3	Al 396.153Radial†	532548.0	600872.9	521070 ug/L	521070 ppb	09:37:51
3	Ca 317.933Radial†	266983.9	301140.5	472000 ug/L	472000 ppb	09:37:51
3	Fe 238.204 Radial†	42012.2	47377.9	431660 ug/L	431660 ppb	09:37:56
3	K 766.490 Radial†	2639.4	14.2	-355.47 ug/L	-355.47 ppb	09:37:51
3	Mg 279.077 IEC†	12701.4	14325.8	470810 ug/L	470810 ppb	09:37:56
3	Na 589.592 Radial†	1394528.1	1574165.9	513020 ug/L	513020 ppb	09:37:51
3	Sr 421.552†	721.8	800.5	1.7229 ug/L	1.7229 ppb	09:37:56
3	Sc 361.383	708806.2	708806.2	85.721 %		09:38:55
3	Y 371.029	563266.0	563266.0	84.396 %		09:38:55
3	Ag 328.068†	-22083.6	-26059.2	2.2669 ug/L	2.2669 ppb	09:38:55
3	As 188.979†	-185.3	-185.5	21.089 ug/L	21.089 ppb	09:39:15
3	B 249.677†	1153.3	1940.4	-23.915 ug/L	-23.915 ppb	09:38:55
3	Ba 233.527†	-1702.4	-1975.7	-2.5511 ug/L	-2.5511 ppb	09:39:15
3	Be 313.107†	-9382.2	-7244.7	-2.6820 ug/L	-2.6820 ppb	09:38:55
3	Cd 226.502†	2870.6	3564.9	-0.2743 ug/L	-0.2743 ppb	09:39:15
3	Co 228.616†	187.3	301.8	-0.1011 ug/L	-0.1011 ppb	09:39:15
3	Cr 267.716†	-68.9	-147.0	1.1934 ug/L	1.1934 ppb	09:39:15
3	Cu 324.752†	-602.3	-5423.6	-1.4915 ug/L	-1.4915 ppb	09:38:55
3	Mn 257.610†	-22081.9	-26230.0	-6.0253 ug/L	-6.0253 ppb	09:38:55
3	Mo 202.031†	-468.4	-558.3	-2.9329 ug/L	-2.9329 ppb	09:39:15
3	Ni 231.604†	279.2	248.7	6.3698 ug/L	6.3698 ppb	09:39:15
3	P 214.914†	549.4	393.9	16.663 ug/L	16.663 ppb	09:39:15
3	Pb 220.353†	-580.3	-609.8	4.1371 ug/L	4.1371 ppb	09:39:15
3	S 181.975 Axial†	97.8	66.3	-6.6177 ug/L	-6.6177 ppb	09:39:15
3	Sb 206.836†	62.1	37.4	-7.8263 ug/L	-7.8263 ppb	09:39:15
3	Se 196.026†	-2083.7	-2405.4	-163.93 ug/L	-163.93 ppb	09:39:15
3	Si 251.611†	-521.3	-1139.5	-36.756 ug/L	-36.756 ppb	09:39:15
3	Sn 189.927†	-370.5	-441.7	-0.8899 ug/L	-0.8899 ppb	09:39:15
3	Ti 334.940†	-9805.4	-9867.7	2.8037 ug/L	2.8037 ppb	09:38:55
3	Tl 190.801†	-94.4	-75.8	-23.856 ug/L	-23.856 ppb	09:39:15
3	U 409.014†	374999.0	441074.9	13800 ug/L	13800 ppb	09:38:55
3	V 292.402†	2005.3	3929.6	1.4960 ug/L	1.4960 ppb	09:39:15
3	Zn 213.857†	5307.0	5462.4	-12.378 ug/L	-12.378 ppb	09:39:15
3	SiO2†	-629.6	-1266.9	-87.251 ug/L	-87.251 ppb	09:39:30

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	712512.3	86.170 %		0.6750			0.78%
Sc Radial	4343.2	88.2 %		0.47			0.53%
Y 371.029	566411.5	84.868 %		0.7520			0.89%
Y RADIAL	4646.5	89.59 %		0.654			0.73%
Ag 328.068†	-26012.5	3.0519 ug/L		0.68325	3.0519 ppb	0.68325	22.39%
Al 396.153Radial†	599421.8	519810 ug/L		1558.9	519810 ppb	1558.9	0.30%
QC value within limits for Al 396.153Radial Recovery = 103.96%							
As 188.979†	-185.8	21.346 ug/L		2.2441	21.346 ppb	2.2441	10.51%
B 249.677†	1874.8	-25.745 ug/L		1.7901	-25.745 ppb	1.7901	6.95%
Ba 233.527†	-2009.2	-2.7678 ug/L		0.18826	-2.7678 ppb	0.18826	6.80%
Be 313.107†	-7167.7	-2.6551 ug/L		0.02851	-2.6551 ppb	0.02851	1.07%
Ca 317.933Radial†	300570.3	471110 ug/L		2235.9	471110 ppb	2235.9	0.47%
QC value within limits for Ca 317.933Radial Recovery = 94.22%							
Cd 226.502†	3552.6	-0.5859 ug/L		0.30482	-0.5859 ppb	0.30482	52.03%
Co 228.616†	322.5	0.3012 ug/L		0.76177	0.3012 ppb	0.76177	252.89%
Cr 267.716†	-155.7	1.1178 ug/L		0.13531	1.1178 ppb	0.13531	12.11%
Cu 324.752†	-5542.4	-1.7759 ug/L		0.29893	-1.7759 ppb	0.29893	16.83%

Fe 238.204 Radial†	47558.5	433310 ug/L	1838.8	433310 ppb	1838.8	0.42%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 86.66%						
K 766.490 Radial†	41.2	-349.80 ug/L	5.923	-349.80 ppb	5.923	1.69%
Mg 279.077 IEC†	14370.7	472280 ug/L	1663.0	472280 ppb	1663.0	0.35%
QC value within limits for Mg 279.077 IEC Recovery = 94.46%						
Mn 257.610†	-26326.8	-6.0316 ug/L	0.18341	-6.0316 ppb	0.18341	3.04%
Mo 202.031†	-557.8	-2.7810 ug/L	0.80355	-2.7810 ppb	0.80355	28.89%
Na 589.592 Radial†	1569001.2	511330 ug/L	2543.4	511330 ppb	2543.4	0.50%
QC value within limits for Na 589.592 Radial Recovery = 102.27%						
Ni 231.604†	227.5	5.8256 ug/L	0.47128	5.8256 ppb	0.47128	8.09%
P 214.914†	394.2	15.248 ug/L	6.7126	15.248 ppb	6.7126	44.02%
Pb 220.353†	-625.2	1.8075 ug/L	2.08752	1.8075 ppb	2.08752	115.49%
S 181.975 Axial†	56.3	-20.189 ug/L	13.4271	-20.189 ppb	13.4271	66.51%
Sb 206.836†	42.4	-6.0635 ug/L	6.30024	-6.0635 ppb	6.30024	103.90%
Se 196.026†	-2395.8	-152.44 ug/L	10.337	-152.44 ppb	10.337	6.78%
Si 251.611†	-1155.8	-37.289 ug/L	0.5330	-37.289 ppb	0.5330	1.43%
Sn 189.927†	-441.9	-1.0325 ug/L	1.53968	-1.0325 ppb	1.53968	149.12%
Sr 421.552†	820.2	1.8584 ug/L	0.17538	1.8584 ppb	0.17538	9.44%
Ti 334.940†	-10195.5	2.0294 ug/L	0.89527	2.0294 ppb	0.89527	44.12%
Tl 190.801†	-88.4	-27.757 ug/L	3.6234	-27.757 ppb	3.6234	13.05%
U 409.014†	441429.5	13811 ug/L	38.2	13811 ppb	38.2	0.28%
QC value within limits for U 409.014 Recovery = 92.07%						
V 292.402†	3961.1	1.5430 ug/L	0.07571	1.5430 ppb	0.07571	4.91%
Zn 213.857†	5453.6	-12.704 ug/L	0.2835	-12.704 ppb	0.2835	2.23%
SiO2†	-1221.4	-84.075 ug/L	2.7698	-84.075 ppb	2.7698	3.29%

QC Failed. Continue with analysis.

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 2/12/2010 09:41:41

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4784.3	4784.3	97.2 %		09:43:39
1	Y RADIAL	5044.7	5044.7	97.27 %		09:43:39
1	Al 396.153Radial†	364.8	538.6	14.265 ug/L	14.265 ppb	09:43:39
1	Ca 317.933Radial†	31.9	17.8	27.930 ug/L	27.930 ppb	09:43:59
1	Fe 238.204 Radial†	-19.9	-31.9	-26.538 ug/L	-26.538 ppb	09:43:59
1	K 766.490 Radial†	1576632.3	1619392.7	282330 ug/L	282330 ppb	09:43:34
1	Mg 279.077 IEC†	-4.0	-5.3	-76.932 ug/L	-76.932 ppb	09:43:59
1	Na 589.592 Radial†	-651.1	480.3	156.51 ug/L	156.51 ppb	09:43:39
1	Sr 421.552†	1406909.8	1447697.5	9489.5 ug/L	9489.5 ppb	09:43:34
1	Sc 361.383	816218.0	816218.0	98.711 %		09:45:16
1	Y 371.029	643255.1	643255.1	96.381 %		09:45:16
1	Ag 328.068†	-7092.9	-7482.6	2.9783 ug/L	2.9783 ppb	09:45:21
1	As 188.979†	20935.2	21239.1	9221.0 ug/L	9221.0 ppb	09:45:21
1	B 249.677†	201260.7	204482.9	4843.7 ug/L	4843.7 ppb	09:45:16
1	Ba 233.527†	1637759.2	1659148.4	13247 ug/L	13247 ppb	09:45:16
1	Be 313.107†	7482874.8	7584255.1	2792.4 ug/L	2792.4 ppb	09:45:10
1	Cd 226.502†	776072.3	786419.0	9185.7 ug/L	9185.7 ppb	09:45:16
1	Co 228.616†	424171.5	429791.9	8833.3 ug/L	8833.3 ppb	09:45:21
1	Cr 267.716†	1915576.1	1940515.0	23076 ug/L	23076 ppb	09:45:16
1	Cu 324.752†	6338348.4	6416366.9	19724 ug/L	19724 ppb	09:45:10
1	Mn 257.610†	8042204.4	8146715.7	9128.3 ug/L	9128.3 ppb	09:45:10
1	Mo 202.031†	122353.0	123938.3	9336.8 ug/L	9336.8 ppb	09:45:21
1	Ni 231.604†	349954.3	354445.5	9078.9 ug/L	9078.9 ppb	09:45:21
1	P 214.914†	28873.6	29003.5	13245 ug/L	13245 ppb	09:45:21
1	Pb 220.353†	185074.1	187557.2	23003 ug/L	23003 ppb	09:45:21
1	S 181.975 Axial†	36028.9	36451.4	50020 ug/L	50020 ppb	09:45:21
1	Sb 206.836†	29102.3	29447.0	10586 ug/L	10586 ppb	09:45:21
1	Se 196.026†	14560.3	14775.8	9683.8 ug/L	9683.8 ppb	09:45:21
1	Si 251.611†	1398652.5	1416378.9	46216 ug/L	46216 ppb	09:45:16
1	Sn 189.927†	52768.9	53448.3	9665.9 ug/L	9665.9 ppb	09:45:21
1	Ti 334.940†	6064971.4	6145713.2	9913.5 ug/L	9913.5 ppb	09:45:10
1	Tl 190.801†	28687.3	29096.1	9089.6 ug/L	9089.6 ppb	09:45:21
1	U 409.014†	-2145.6	1438.4	-6.4134 ug/L	-6.4134 ppb	09:45:21
1	V 292.402†	1281794.7	1300117.2	9818.8 ug/L	9818.8 ppb	09:45:16
1	Zn 213.857†	1373108.5	1390304.1	13212 ug/L	13212 ppb	09:45:16
1	SiO2†	1387776.2	1405359.6	97804 ug/L	97804 ppb	09:46:07
2	Sc Radial	4807.9	4807.9	97.7 %		09:44:09
2	Y RADIAL	5061.6	5061.6	97.59 %		09:44:09
2	Al 396.153Radial†	366.8	538.8	10.421 ug/L	10.421 ppb	09:44:09
2	Ca 317.933Radial†	27.3	13.0	20.298 ug/L	20.298 ppb	09:44:29
2	Fe 238.204 Radial†	-17.1	-29.0	2.6116 ug/L	2.6116 ppb	09:44:29
2	K 766.490 Radial†	1598583.9	1633933.8	284870 ug/L	284870 ppb	09:44:04
2	Mg 279.077 IEC†	-3.6	-4.9	-61.119 ug/L	-61.119 ppb	09:44:29
2	Na 589.592 Radial†	-587.2	548.9	178.89 ug/L	178.89 ppb	09:44:09
2	Sr 421.552†	1426659.8	1460838.5	9575.6 ug/L	9575.6 ppb	09:44:04
2	Sc 361.383	821930.6	821930.6	99.402 %		09:45:36
2	Y 371.029	647690.1	647690.1	97.046 %		09:45:36
2	Ag 328.068†	-7065.5	-7405.1	3.3346 ug/L	3.3346 ppb	09:45:41
2	As 188.979†	21366.4	21525.5	9343.8 ug/L	9343.8 ppb	09:45:41
2	B 249.677†	203037.4	204853.3	4852.3 ug/L	4852.3 ppb	09:45:36
2	Ba 233.527†	1646359.2	1656268.8	13224 ug/L	13224 ppb	09:45:36
2	Be 313.107†	7488049.7	7536774.5	2774.9 ug/L	2774.9 ppb	09:45:30
2	Cd 226.502†	779953.5	784859.3	9167.5 ug/L	9167.5 ppb	09:45:36
2	Co 228.616†	430524.1	433196.1	8903.6 ug/L	8903.6 ppb	09:45:41
2	Cr 267.716†	1926327.6	1937843.7	23044 ug/L	23044 ppb	09:45:36
2	Cu 324.752†	6342262.4	6375676.6	19599 ug/L	19599 ppb	09:45:30
2	Mn 257.610†	8056795.6	8104770.0	9081.3 ug/L	9081.3 ppb	09:45:30
2	Mo 202.031†	124312.6	125048.2	9420.4 ug/L	9420.4 ppb	09:45:41
2	Ni 231.604†	355726.5	357788.4	9164.5 ug/L	9164.5 ppb	09:45:41

2	P 214.914†	29318.6	29247.8	13414 ug/L	13414 ppb	09:45:41
2	Pb 220.353†	187914.3	189111.4	23194 ug/L	23194 ppb	09:45:41
2	S 181.975 Axial†	36771.3	36944.6	50696 ug/L	50696 ppb	09:45:41
2	Sb 206.836†	29638.3	29781.4	10705 ug/L	10705 ppb	09:45:41
2	Se 196.026†	14865.3	14980.0	9817.6 ug/L	9817.6 ppb	09:45:41
2	Si 251.611†	1407922.3	1415856.6	46198 ug/L	46198 ppb	09:45:36
2	Sn 189.927†	53621.1	53934.1	9753.8 ug/L	9753.8 ppb	09:45:41
2	Ti 334.940†	6073187.5	6111275.5	9858.0 ug/L	9858.0 ppb	09:45:30
2	Tl 190.801†	29228.0	29438.1	9194.7 ug/L	9194.7 ppb	09:45:41
2	U 409.014†	-2193.4	1405.4	-7.3812 ug/L	-7.3812 ppb	09:45:41
2	V 292.402†	1289839.1	1299184.9	9813.1 ug/L	9813.1 ppb	09:45:36
2	Zn 213.857†	1381100.5	1388676.2	13196 ug/L	13196 ppb	09:45:36
2	SiO2†	1420789.8	1428800.5	99437 ug/L	99437 ppb	09:46:13
3	Sc Radial	4852.8	4852.8	98.6 %		09:44:40
3	Y RADIAL	5097.6	5097.6	98.29 %		09:44:40
3	Al 396.153Radial†	402.2	571.3	37.219 ug/L	37.219 ppb	09:44:40
3	Ca 317.933Radial†	39.7	25.3	39.663 ug/L	39.663 ppb	09:45:00
3	Fe 238.204 Radial†	-18.8	-30.5	-11.005 ug/L	-11.005 ppb	09:45:00
3	K 766.490 Radial†	1609627.3	1629975.5	284180 ug/L	284180 ppb	09:44:35
3	Mg 279.077 IEC†	-5.8	-7.1	-135.53 ug/L	-135.53 ppb	09:45:00
3	Na 589.592 Radial†	-584.6	557.2	181.59 ug/L	181.59 ppb	09:44:40
3	Sr 421.552†	1436930.3	1457726.8	9555.2 ug/L	9555.2 ppb	09:44:35
3	Sc 361.383	813967.4	813967.4	98.439 %		09:45:56
3	Y 371.029	642105.4	642105.4	96.209 %		09:45:56
3	Ag 328.068†	-7011.5	-7419.8	3.2602 ug/L	3.2602 ppb	09:46:01
3	As 188.979†	21211.6	21578.6	9366.5 ug/L	9366.5 ppb	09:46:01
3	B 249.677†	200887.8	204667.9	4847.8 ug/L	4847.8 ppb	09:45:56
3	Ba 233.527†	1631138.2	1657009.9	13230 ug/L	13230 ppb	09:45:56
3	Be 313.107†	7391300.0	7512188.4	2765.9 ug/L	2765.9 ppb	09:45:49
3	Cd 226.502†	771759.4	784211.6	9159.9 ug/L	9159.9 ppb	09:45:56
3	Co 228.616†	427589.7	434452.4	8929.5 ug/L	8929.5 ppb	09:46:01
3	Cr 267.716†	1908408.4	1938599.3	23053 ug/L	23053 ppb	09:45:56
3	Cu 324.752†	6266896.1	6361535.9	19556 ug/L	19556 ppb	09:45:49
3	Mn 257.610†	7966540.4	8092378.8	9067.4 ug/L	9067.4 ppb	09:45:49
3	Mo 202.031†	123475.8	125421.6	9448.5 ug/L	9448.5 ppb	09:46:01
3	Ni 231.604†	352660.7	358175.0	9174.4 ug/L	9174.4 ppb	09:46:01
3	P 214.914†	29087.8	29302.0	13455 ug/L	13455 ppb	09:46:01
3	Pb 220.353†	186478.2	189502.0	23242 ug/L	23242 ppb	09:46:01
3	S 181.975 Axial†	36581.8	37114.1	50929 ug/L	50929 ppb	09:46:01
3	Sb 206.836†	29356.5	29786.8	10708 ug/L	10708 ppb	09:46:01
3	Se 196.026†	14689.9	14948.2	9796.8 ug/L	9796.8 ppb	09:46:01
3	Si 251.611†	1392768.8	1414319.6	46148 ug/L	46148 ppb	09:45:56
3	Sn 189.927†	53254.5	54089.3	9781.9 ug/L	9781.9 ppb	09:46:01
3	Ti 334.940†	6004707.4	6101482.0	9842.1 ug/L	9842.1 ppb	09:45:49
3	Tl 190.801†	28950.3	29443.6	9196.1 ug/L	9196.1 ppb	09:46:01
3	U 409.014†	-1938.4	1642.8	0.0546 ug/L	0.0546 ppb	09:46:01
3	V 292.402†	1277595.2	1299441.5	9815.5 ug/L	9815.5 ppb	09:45:56
3	Zn 213.857†	1367584.0	1388538.2	13194 ug/L	13194 ppb	09:45:56
3	SiO2†	1409095.8	1430904.4	99583 ug/L	99583 ppb	09:46:19

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	817372.0	98.851 %	0.4965			0.50%
Sc Radial	4815.0	97.8 %	0.71			0.72%
Y 371.029	644350.2	96.545 %	0.4419			0.46%
Y RADIAL	5068.0	97.72 %	0.521			0.53%
Ag 328.068†	-7435.8	3.1910 ug/L	0.18797	3.1910 ppb	0.18797	5.89%
Al 396.153Radial†	549.6	20.635 ug/L	14.4900	20.635 ppb	14.4900	70.22%
As 188.979†	21447.7	9310.4 ug/L	78.28	9310.4 ppb	78.28	0.84%
QC value within limits for As 188.979 Recovery = 93.10%						
B 249.677†	204668.0	4847.9 ug/L	4.31	4847.9 ppb	4.31	0.09%
QC value within limits for B 249.677 Recovery = 96.96%						
Ba 233.527†	1657475.7	13234 ug/L	11.9	13234 ppb	11.9	0.09%
QC value less than the lower limit for Ba 233.527 Recovery = 88.22%						
Be 313.107†	7544406.0	2777.7 ug/L	13.46	2777.7 ppb	13.46	0.48%
QC value within limits for Be 313.107 Recovery = 92.59%						
Ca 317.933Radial†	18.7	29.297 ug/L	9.7545	29.297 ppb	9.7545	33.30%
Cd 226.502†	785163.3	9171.0 ug/L	13.21	9171.0 ppb	13.21	0.14%
QC value within limits for Cd 226.502 Recovery = 91.71%						

Co 228.616†	432480.1	8888.8 ug/L	49.79	8888.8 ppb	49.79	0.56%
QC value less than the lower limit for Co 228.616 Recovery = 88.89%						
Cr 267.716†	1938986.0	23057 ug/L	16.4	23057 ppb	16.4	0.07%
QC value within limits for Cr 267.716 Recovery = 92.23%						
Cu 324.752†	6384526.5	19627 ug/L	87.5	19627 ppb	87.5	0.45%
QC value within limits for Cu 324.752 Recovery = 98.13%						
Fe 238.204 Radial†	-30.5	-11.644 ug/L	14.5853	-11.644 ppb	14.5853	125.26%
K 766.490 Radial†	1627767.4	283790 ug/L	1310.7	283790 ppb	1310.7	0.46%
QC value within limits for K 766.490 Radial Recovery = 94.60%						
Mg 279.077 IEC†	-5.8	-91.195 ug/L	39.2045	-91.195 ppb	39.2045	42.99%
Mn 257.610†	8114621.5	9092.4 ug/L	31.91	9092.4 ppb	31.91	0.35%
QC value within limits for Mn 257.610 Recovery = 90.92%						
Mo 202.031†	124802.7	9401.9 ug/L	58.12	9401.9 ppb	58.12	0.62%
QC value within limits for Mo 202.031 Recovery = 94.02%						
Na 589.592 Radial†	528.8	172.33 ug/L	13.766	172.33 ppb	13.766	7.99%
Ni 231.604†	356803.0	9139.2 ug/L	52.53	9139.2 ppb	52.53	0.57%
QC value within limits for Ni 231.604 Recovery = 91.39%						
P 214.914†	29184.4	13371 ug/L	111.5	13371 ppb	111.5	0.83%
QC value less than the lower limit for P 214.914 Recovery = 89.14%						
Pb 220.353†	188723.5	23146 ug/L	126.3	23146 ppb	126.3	0.55%
QC value within limits for Pb 220.353 Recovery = 92.58%						
S 181.975 Axial†	36836.7	50548 ug/L	472.4	50548 ppb	472.4	0.93%
QC value within limits for S 181.975 Axial Recovery = 101.10%						
Sb 206.836†	29671.7	10666 ug/L	69.9	10666 ppb	69.9	0.66%
QC value within limits for Sb 206.836 Recovery = 106.66%						
Se 196.026†	14901.3	9766.1 ug/L	72.03	9766.1 ppb	72.03	0.74%
QC value within limits for Se 196.026 Recovery = 97.66%						
Si 251.611†	1415518.4	46187 ug/L	35.6	46187 ppb	35.6	0.08%
QC value within limits for Si 251.611 Recovery = 92.37%						
Sn 189.927†	53823.9	9733.9 ug/L	60.48	9733.9 ppb	60.48	0.62%
QC value within limits for Sn 189.927 Recovery = 97.34%						
Sr 421.552†	1455421.0	9540.1 ug/L	45.01	9540.1 ppb	45.01	0.47%
QC value within limits for Sr 421.552 Recovery = 95.40%						
Ti 334.940†	6119490.3	9871.2 ug/L	37.50	9871.2 ppb	37.50	0.38%
QC value within limits for Ti 334.940 Recovery = 98.71%						
Tl 190.801†	29325.9	9160.1 ug/L	61.05	9160.1 ppb	61.05	0.67%
QC value within limits for Tl 190.801 Recovery = 91.60%						
U 409.014†	1495.5	-4.5800 ug/L	4.04272	-4.5800 ppb	4.04272	88.27%
V 292.402†	1299581.2	9815.8 ug/L	2.87	9815.8 ppb	2.87	0.03%
QC value within limits for V 292.402 Recovery = 98.16%						
Zn 213.857†	1389172.8	13200 ug/L	9.6	13200 ppb	9.6	0.07%
QC value less than the lower limit for Zn 213.857 Recovery = 88.00%						
SiO2†	1421688.1	98941 ug/L	987.8	98941 ppb	987.8	1.00%
QC value within limits for SiO2 Recovery = 92.47%						
QC Failed. Continue with analysis.						

Sequence No.: 13  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/12/2010 09:48:30  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4854.8	4854.8	98.6 %		09:50:22
1	Y RADIAL	5145.9	5145.9	99.22 %		09:50:22
1	Al 396.153Radial†	5596.1	5838.0	5039.4 ug/L	5039.4 ppb	09:50:22
1	Ca 317.933Radial†	3207.9	3238.0	5075.2 ug/L	5075.2 ppb	09:50:42
1	Fe 238.204 Radial†	560.2	556.7	5086.4 ug/L	5086.4 ppb	09:50:42
1	K 766.490 Radial†	31530.5	29010.9	5051.8 ug/L	5051.8 ppb	09:50:22
1	Mg 279.077 IEC†	159.1	160.2	5268.7 ug/L	5268.7 ppb	09:50:42
1	Na 589.592 Radial†	29469.8	31034.4	10114 ug/L	10114 ppb	09:50:22
1	Sr 421.552†	75105.7	76148.2	499.11 ug/L	499.11 ppb	09:50:22
1	Sc 361.383	860698.1	860698.1	104.09 %		09:51:39
1	Y 371.029	681458.8	681458.8	102.11 %		09:51:39
1	Ag 328.068†	103232.8	98878.6	480.70 ug/L	480.70 ppb	09:51:44
1	As 188.979†	1173.2	1157.8	503.36 ug/L	503.36 ppb	09:52:04
1	B 249.677†	21779.8	21518.9	510.19 ug/L	510.19 ppb	09:51:44
1	Ba 233.527†	62486.0	60040.6	479.81 ug/L	479.81 ppb	09:51:44
1	Be 313.107†	1372038.7	1321818.1	483.83 ug/L	483.83 ppb	09:51:39
1	Cd 226.502†	42293.2	40847.2	476.68 ug/L	476.68 ppb	09:51:44
1	Co 228.616†	24116.1	23251.7	478.10 ug/L	478.10 ppb	09:51:44
1	Cr 267.716†	41927.3	40212.9	478.49 ug/L	478.49 ppb	09:51:44
1	Cu 324.752†	168070.5	156744.4	481.84 ug/L	481.84 ppb	09:51:44
1	Mn 257.610†	451024.2	432829.1	485.27 ug/L	485.27 ppb	09:51:39
1	Mo 202.031†	6632.3	6359.8	479.56 ug/L	479.56 ppb	09:52:04
1	Ni 231.604†	19421.2	18580.9	475.93 ug/L	475.93 ppb	09:51:44
1	P 214.914†	4461.8	4039.4	2283.6 ug/L	2283.6 ppb	09:52:04
1	Pb 220.353†	4005.9	3915.6	481.58 ug/L	481.58 ppb	09:52:04
1	S 181.975 Axial†	784.0	705.4	967.06 ug/L	967.06 ppb	09:52:04
1	Sb 206.836†	1502.8	1408.7	507.18 ug/L	507.18 ppb	09:52:04
1	Se 196.026†	760.1	755.7	511.80 ug/L	511.80 ppb	09:52:04
1	Si 251.611†	76875.5	73323.0	2392.6 ug/L	2392.6 ppb	09:51:44
1	Sn 189.927†	2766.8	2648.5	479.83 ug/L	479.83 ppb	09:52:04
1	Ti 334.940†	306506.0	296031.3	477.79 ug/L	477.79 ppb	09:51:44
1	Tl 190.801†	1588.6	1560.5	487.09 ug/L	487.09 ppb	09:52:04
1	U 409.014†	12565.8	15683.9	490.80 ug/L	490.80 ppb	09:51:44
1	V 292.402†	65031.5	64065.9	484.67 ug/L	484.67 ppb	09:51:44
1	Zn 213.857†	52723.5	49922.8	472.99 ug/L	472.99 ppb	09:51:44
1	SiO2†	77016.8	73457.7	5112.4 ug/L	5112.4 ppb	09:53:12
2	Sc Radial	5019.9	5019.9	102 %		09:50:47
2	Y RADIAL	5284.3	5284.3	101.9 %		09:50:47
2	Al 396.153Radial†	5725.1	5778.0	4987.1 ug/L	4987.1 ppb	09:50:47
2	Ca 317.933Radial†	3212.3	3135.4	4914.4 ug/L	4914.4 ppb	09:51:07
2	Fe 238.204 Radial†	560.1	537.9	4915.6 ug/L	4915.6 ppb	09:51:07
2	K 766.490 Radial†	32342.7	28756.2	5007.4 ug/L	5007.4 ppb	09:50:47
2	Mg 279.077 IEC†	155.1	150.9	4963.7 ug/L	4963.7 ppb	09:51:07
2	Na 589.592 Radial†	30157.4	30726.2	10014 ug/L	10014 ppb	09:50:47
2	Sr 421.552†	77255.0	75751.9	496.51 ug/L	496.51 ppb	09:50:47
2	Sc 361.383	848031.7	848031.7	102.56 %		09:52:10
2	Y 371.029	670353.3	670353.3	100.44 %		09:52:10
2	Ag 328.068†	103605.3	100723.2	489.58 ug/L	489.58 ppb	09:52:15
2	As 188.979†	1146.6	1148.6	499.45 ug/L	499.45 ppb	09:52:35
2	B 249.677†	21869.4	21918.8	519.71 ug/L	519.71 ppb	09:52:15
2	Ba 233.527†	62740.5	61185.4	488.95 ug/L	488.95 ppb	09:52:15
2	Be 313.107†	1348044.2	1318110.0	482.50 ug/L	482.50 ppb	09:52:10
2	Cd 226.502†	42443.7	41600.7	485.51 ug/L	485.51 ppb	09:52:15
2	Co 228.616†	24250.2	23728.5	487.89 ug/L	487.89 ppb	09:52:15
2	Cr 267.716†	42015.0	40900.1	486.66 ug/L	486.66 ppb	09:52:15
2	Cu 324.752†	168658.2	159729.1	491.00 ug/L	491.00 ppb	09:52:15
2	Mn 257.610†	445099.6	433524.2	486.04 ug/L	486.04 ppb	09:52:10
2	Mo 202.031†	6592.3	6416.0	483.78 ug/L	483.78 ppb	09:52:35
2	Ni 231.604†	19572.4	19007.0	486.84 ug/L	486.84 ppb	09:52:15



2	P 214.914†	4423.6	4066.1	2297.7 ug/L	2297.7 ppb	09:52:35
2	Pb 220.353†	3944.7	3913.4	481.32 ug/L	481.32 ppb	09:52:35
2	S 181.975 Axial†	770.8	703.8	964.82 ug/L	964.82 ppb	09:52:35
2	Sb 206.836†	1486.1	1413.9	509.14 ug/L	509.14 ppb	09:52:35
2	Se 196.026†	733.8	740.9	501.62 ug/L	501.62 ppb	09:52:35
2	Si 251.611†	77238.3	74779.8	2440.2 ug/L	2440.2 ppb	09:52:15
2	Sn 189.927†	2739.5	2661.7	482.18 ug/L	482.18 ppb	09:52:35
2	Ti 334.940†	307655.1	301549.8	486.69 ug/L	486.69 ppb	09:52:15
2	Tl 190.801†	1585.4	1580.1	493.20 ug/L	493.20 ppb	09:52:35
2	U 409.014†	12712.1	16006.9	500.94 ug/L	500.94 ppb	09:52:15
2	V 292.402†	65256.2	65218.2	493.35 ug/L	493.35 ppb	09:52:15
2	Zn 213.857†	52973.0	50922.7	482.49 ug/L	482.49 ppb	09:52:15
2	SiO2†	77058.4	74603.4	5192.2 ug/L	5192.2 ppb	09:53:17
3	Sc Radial	4970.9	4970.9	101 %		09:51:12
3	Y RADIAL	5246.5	5246.5	101.2 %		09:51:12
3	Al 396.153Radial†	5686.4	5794.9	5001.9 ug/L	5001.9 ppb	09:51:12
3	Ca 317.933Radial†	3199.7	3154.0	4943.5 ug/L	4943.5 ppb	09:51:32
3	Fe 238.204 Radial†	551.2	534.5	4883.8 ug/L	4883.8 ppb	09:51:32
3	K 766.490 Radial†	31711.7	28443.6	4952.9 ug/L	4952.9 ppb	09:51:12
3	Mg 279.077 IEC†	160.0	157.3	5173.4 ug/L	5173.4 ppb	09:51:32
3	Na 589.592 Radial†	29854.5	30717.5	10011 ug/L	10011 ppb	09:51:12
3	Sr 421.552†	76303.9	75556.1	495.23 ug/L	495.23 ppb	09:51:12
3	Sc 361.383	856742.6	856742.6	103.61 %		09:52:41
3	Y 371.029	677646.3	677646.3	101.53 %		09:52:41
3	Ag 328.068†	102962.2	99075.3	481.59 ug/L	481.59 ppb	09:52:46
3	As 188.979†	1162.0	1152.1	500.88 ug/L	500.88 ppb	09:53:06
3	B 249.677†	21628.0	21469.0	509.03 ug/L	509.03 ppb	09:52:46
3	Ba 233.527†	62264.8	60104.3	480.32 ug/L	480.32 ppb	09:52:46
3	Be 313.107†	1362409.8	1318610.4	482.66 ug/L	482.66 ppb	09:52:41
3	Cd 226.502†	42071.4	40820.7	476.40 ug/L	476.40 ppb	09:52:46
3	Co 228.616†	24078.9	23322.8	479.56 ug/L	479.56 ppb	09:52:46
3	Cr 267.716†	41748.6	40226.4	478.65 ug/L	478.65 ppb	09:52:46
3	Cu 324.752†	168116.6	157534.4	484.26 ug/L	484.26 ppb	09:52:46
3	Mn 257.610†	448846.2	432727.6	485.14 ug/L	485.14 ppb	09:52:41
3	Mo 202.031†	6616.5	6373.9	480.61 ug/L	480.61 ppb	09:53:06
3	Ni 231.604†	19429.0	18674.6	478.33 ug/L	478.33 ppb	09:52:46
3	P 214.914†	4459.0	4056.5	2293.3 ug/L	2293.3 ppb	09:53:06
3	Pb 220.353†	3981.3	3909.6	480.86 ug/L	480.86 ppb	09:53:06
3	S 181.975 Axial†	778.0	703.1	963.91 ug/L	963.91 ppb	09:53:06
3	Sb 206.836†	1509.9	1422.1	511.87 ug/L	511.87 ppb	09:53:06
3	Se 196.026†	753.6	752.7	509.24 ug/L	509.24 ppb	09:53:06
3	Si 251.611†	76667.5	73463.2	2397.2 ug/L	2397.2 ppb	09:52:46
3	Sn 189.927†	2748.7	2643.4	478.89 ug/L	478.89 ppb	09:53:06
3	Ti 334.940†	305529.3	296448.1	478.45 ug/L	478.45 ppb	09:52:46
3	Tl 190.801†	1581.2	1560.4	487.07 ug/L	487.07 ppb	09:53:06
3	U 409.014†	12497.9	15674.1	490.52 ug/L	490.52 ppb	09:52:46
3	V 292.402†	64821.0	64151.2	485.34 ug/L	485.34 ppb	09:52:46
3	Zn 213.857†	52612.6	50049.7	474.21 ug/L	474.21 ppb	09:52:46
3	SiO2†	76200.1	73011.1	5081.2 ug/L	5081.2 ppb	09:53:22

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	855157.5	103.42 %	0.784			0.76%
Sc Radial	4948.5	101 %	1.7			1.71%
Y 371.029	676486.1	101.36 %	0.845			0.83%
Y RADIAL	5225.5	100.8 %	1.38			1.37%
Ag 328.068†	99559.0	483.95 ug/L	4.891	483.95 ppb	4.891	1.01%
QC value within limits for Ag 328.068 Recovery = 96.79%						
Al 396.153Radial†	5803.6	5009.5 ug/L	26.93	5009.5 ppb	26.93	0.54%
QC value within limits for Al 396.153Radial Recovery = 100.19%						
As 188.979†	1152.8	501.23 ug/L	1.977	501.23 ppb	1.977	0.39%
QC value within limits for As 188.979 Recovery = 100.25%						
B 249.677†	21635.6	512.97 ug/L	5.861	512.97 ppb	5.861	1.14%
QC value within limits for B 249.677 Recovery = 102.59%						
Ba 233.527†	60443.4	483.03 ug/L	5.138	483.03 ppb	5.138	1.06%
QC value within limits for Ba 233.527 Recovery = 96.61%						
Be 313.107†	1319512.9	483.00 ug/L	0.727	483.00 ppb	0.727	0.15%
QC value within limits for Be 313.107 Recovery = 96.60%						
Ca 317.933Radial†	3175.8	4977.7 ug/L	85.70	4977.7 ppb	85.70	1.72%

QC value within limits for Ca 317.933 Radial Recovery = 99.55%

Cd 226.502†	41089.5	479.53 ug/L	5.179	479.53 ppb	5.179	1.08%
QC value within limits for Cd 226.502 Recovery = 95.91%						
Co 228.616†	23434.3	481.85 ug/L	5.284	481.85 ppb	5.284	1.10%
QC value within limits for Co 228.616 Recovery = 96.37%						
Cr 267.716†	40446.5	481.26 ug/L	4.673	481.26 ppb	4.673	0.97%
QC value within limits for Cr 267.716 Recovery = 96.25%						
Cu 324.752†	158002.6	485.70 ug/L	4.747	485.70 ppb	4.747	0.98%
QC value within limits for Cu 324.752 Recovery = 97.14%						
Fe 238.204 Radial†	543.0	4961.9 ug/L	108.97	4961.9 ppb	108.97	2.20%
QC value within limits for Fe 238.204 Radial Recovery = 99.24%						
K 766.490 Radial†	28736.9	5004.0 ug/L	49.50	5004.0 ppb	49.50	0.99%
QC value within limits for K 766.490 Radial Recovery = 100.08%						
Mg 279.077 IEC†	156.1	5135.3 ug/L	156.02	5135.3 ppb	156.02	3.04%
QC value within limits for Mg 279.077 IEC Recovery = 102.71%						
Mn 257.610†	433027.0	485.48 ug/L	0.489	485.48 ppb	0.489	0.10%
QC value within limits for Mn 257.610 Recovery = 97.10%						
Mo 202.031†	6383.2	481.32 ug/L	2.197	481.32 ppb	2.197	0.46%
QC value within limits for Mo 202.031 Recovery = 96.26%						
Na 589.592 Radial†	30826.1	10046 ug/L	58.8	10046 ppb	58.8	0.59%
QC value within limits for Na 589.592 Radial Recovery = 100.46%						
Ni 231.604†	18754.2	480.36 ug/L	5.736	480.36 ppb	5.736	1.19%
QC value within limits for Ni 231.604 Recovery = 96.07%						
P 214.914†	4054.0	2291.5 ug/L	7.20	2291.5 ppb	7.20	0.31%
QC value within limits for P 214.914 Recovery = 91.66%						
Pb 220.353†	3912.9	481.25 ug/L	0.366	481.25 ppb	0.366	0.08%
QC value within limits for Pb 220.353 Recovery = 96.25%						
S 181.975 Axial†	704.1	965.27 ug/L	1.621	965.27 ppb	1.621	0.17%
QC value within limits for S 181.975 Axial Recovery = 96.53%						
Sb 206.836†	1414.9	509.40 ug/L	2.355	509.40 ppb	2.355	0.46%
QC value within limits for Sb 206.836 Recovery = 101.88%						
Se 196.026†	749.8	507.55 ug/L	5.299	507.55 ppb	5.299	1.04%
QC value within limits for Se 196.026 Recovery = 101.51%						
Si 251.611†	73855.4	2410.0 ug/L	26.26	2410.0 ppb	26.26	1.09%
QC value within limits for Si 251.611 Recovery = 96.40%						
Sn 189.927†	2651.2	480.30 ug/L	1.695	480.30 ppb	1.695	0.35%
QC value within limits for Sn 189.927 Recovery = 96.06%						
Sr 421.552†	75818.7	496.95 ug/L	1.977	496.95 ppb	1.977	0.40%
QC value within limits for Sr 421.552 Recovery = 99.39%						
Ti 334.940†	298009.7	480.98 ug/L	4.961	480.98 ppb	4.961	1.03%
QC value within limits for Ti 334.940 Recovery = 96.20%						
Tl 190.801†	1567.0	489.12 ug/L	3.531	489.12 ppb	3.531	0.72%
QC value within limits for Tl 190.801 Recovery = 97.82%						
U 409.014†	15788.3	494.09 ug/L	5.939	494.09 ppb	5.939	1.20%
QC value within limits for U 409.014 Recovery = 98.82%						
V 292.402†	64478.5	487.79 ug/L	4.832	487.79 ppb	4.832	0.99%
QC value within limits for V 292.402 Recovery = 97.56%						
Zn 213.857†	50298.4	476.57 ug/L	5.171	476.57 ppb	5.171	1.09%
QC value within limits for Zn 213.857 Recovery = 95.31%						
SiO2†	73690.7	5128.6 ug/L	57.26	5128.6 ppb	57.26	1.12%
QC value within limits for SiO2 Recovery = 95.91%						

All analyte(s) passed QC.

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/12/2010 09:55:33

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4902.9	4902.9	99.6 %		09:57:26
1	Y RADIAL	5232.2	5232.2	100.9 %		09:57:26
1	Al 396.153Radial†	-166.0	-3.4	-3.0471 ug/L	-3.0471 ppb	09:57:26
1	Ca 317.933Radial†	20.4	5.5	8.6949 ug/L	8.6949 ppb	09:57:46
1	Fe 238.204 Radial†	11.1	-0.3	-2.7081 ug/L	-2.7081 ppb	09:57:46
1	K 766.490 Radial†	3336.6	387.4	67.511 ug/L	67.511 ppb	09:57:26
1	Mg 279.077 IEC†	2.7	1.5	48.043 ug/L	48.043 ppb	09:57:46
1	Na 589.592 Radial†	-947.3	199.0	64.866 ug/L	64.866 ppb	09:57:26
1	Sr 421.552†	14.0	0.4	0.0025 ug/L	0.0025 ppb	09:57:26
1	Sc 361.383	839133.1	839133.1	101.48 %		09:58:43
1	Y 371.029	671926.0	671926.0	100.68 %		09:58:43
1	Ag 328.068†	246.5	-54.3	-0.2749 ug/L	-0.2749 ppb	09:58:43
1	As 188.979†	-7.6	23.1	9.9685 ug/L	9.9685 ppb	09:59:03
1	B 249.677†	174.3	766.8	18.259 ug/L	18.259 ppb	09:58:43
1	Ba 233.527†	-1.6	8.7	0.0693 ug/L	0.0693 ppb	09:59:03
1	Be 313.107†	-3977.9	-219.4	-0.0794 ug/L	-0.0794 ppb	09:58:43
1	Cd 226.502†	-168.1	50.4	0.5915 ug/L	0.5915 ppb	09:59:03
1	Co 228.616†	-82.9	1.6	0.0367 ug/L	0.0367 ppb	09:59:03
1	Cr 267.716†	85.2	17.3	0.1998 ug/L	0.1998 ppb	09:59:03
1	Cu 324.752†	4960.9	167.5	0.5064 ug/L	0.5064 ppb	09:58:43
1	Mn 257.610†	477.8	1.0	-0.0012 ug/L	-0.0012 ppb	09:59:03
1	Mo 202.031†	36.8	24.4	1.8377 ug/L	1.8377 ppb	09:59:03
1	Ni 231.604†	83.5	5.2	0.1335 ug/L	0.1335 ppb	09:59:03
1	P 214.914†	222.5	-27.8	-16.397 ug/L	-16.397 ppb	09:59:03
1	Pb 220.353†	-52.7	15.2	1.8699 ug/L	1.8699 ppb	09:59:03
1	S 181.975 Axial†	53.1	4.5	6.2362 ug/L	6.2362 ppb	09:59:03
1	Sb 206.836†	46.0	10.2	3.6951 ug/L	3.6951 ppb	09:59:03
1	Se 196.026†	-22.6	3.1	2.0327 ug/L	2.0327 ppb	09:59:03
1	Si 251.611†	613.4	73.1	2.3700 ug/L	2.3700 ppb	09:59:03
1	Sn 189.927†	52.6	42.4	7.6667 ug/L	7.6667 ppb	09:59:03
1	Ti 334.940†	-1376.7	214.4	0.3366 ug/L	0.3366 ppb	09:58:43
1	Tl 190.801†	-28.3	6.5	2.0094 ug/L	2.0094 ppb	09:59:03
1	U 409.014†	-3178.3	480.0	15.072 ug/L	15.072 ppb	09:58:43
1	V 292.402†	-1597.5	16.0	0.1754 ug/L	0.1754 ppb	09:58:43
1	Zn 213.857†	738.7	-0.7	-0.0083 ug/L	-0.0083 ppb	09:59:03
1	SiO2†	633.8	92.1	6.3789 ug/L	6.3789 ppb	09:59:59
2	Sc Radial	4894.9	4894.9	99.4 %		09:57:51
2	Y RADIAL	5226.5	5226.5	100.8 %		09:57:51
2	Al 396.153Radial†	-162.7	-0.4	-0.4252 ug/L	-0.4252 ppb	09:57:51
2	Ca 317.933Radial†	15.7	0.8	1.3080 ug/L	1.3080 ppb	09:58:11
2	Fe 238.204 Radial†	9.4	-2.0	-18.356 ug/L	-18.356 ppb	09:58:11
2	K 766.490 Radial†	3342.1	398.4	69.430 ug/L	69.430 ppb	09:57:51
2	Mg 279.077 IEC†	3.5	2.3	76.644 ug/L	76.644 ppb	09:58:11
2	Na 589.592 Radial†	-901.5	243.5	79.357 ug/L	79.357 ppb	09:57:51
2	Sr 421.552†	14.5	0.9	0.0061 ug/L	0.0061 ppb	09:57:51
2	Sc 361.383	839061.7	839061.7	101.47 %		09:59:08
2	Y 371.029	671510.5	671510.5	100.62 %		09:59:08
2	Ag 328.068†	200.7	-99.3	-0.4957 ug/L	-0.4957 ppb	09:59:08
2	As 188.979†	-10.1	20.7	8.9265 ug/L	8.9265 ppb	09:59:28
2	B 249.677†	149.4	742.2	17.676 ug/L	17.676 ppb	09:59:08
2	Ba 233.527†	-18.3	-7.7	-0.0623 ug/L	-0.0623 ppb	09:59:28
2	Be 313.107†	-3896.0	-139.1	-0.0499 ug/L	-0.0499 ppb	09:59:08
2	Cd 226.502†	-164.9	53.5	0.6293 ug/L	0.6293 ppb	09:59:28
2	Co 228.616†	-86.0	-1.4	-0.0254 ug/L	-0.0254 ppb	09:59:28
2	Cr 267.716†	83.7	15.8	0.1832 ug/L	0.1832 ppb	09:59:28
2	Cu 324.752†	4948.5	155.7	0.4713 ug/L	0.4713 ppb	09:59:08
2	Mn 257.610†	515.0	37.6	0.0372 ug/L	0.0372 ppb	09:59:28
2	Mo 202.031†	37.8	25.4	1.9113 ug/L	1.9113 ppb	09:59:28
2	Ni 231.604†	84.4	6.2	0.1586 ug/L	0.1586 ppb	09:59:28

2	P 214.914†	237.2	-13.3	-7.8505 ug/L	-7.8505 ppb	09:59:28
2	Pb 220.353†	-66.4	1.8	0.2227 ug/L	0.2227 ppb	09:59:28
2	S 181.975 Axial†	46.0	-2.4	-3.3185 ug/L	-3.3185 ppb	09:59:28
2	Sb 206.836†	43.4	7.7	2.8284 ug/L	2.8284 ppb	09:59:28
2	Se 196.026†	-16.4	9.2	5.9564 ug/L	5.9564 ppb	09:59:28
2	Si 251.611†	616.9	76.6	2.4818 ug/L	2.4818 ppb	09:59:28
2	Sn 189.927†	51.7	41.4	7.4941 ug/L	7.4941 ppb	09:59:28
2	Ti 334.940†	-1347.3	243.2	0.3815 ug/L	0.3815 ppb	09:59:08
2	Tl 190.801†	-28.7	6.0	1.8661 ug/L	1.8661 ppb	09:59:28
2	U 409.014†	-3294.8	365.0	11.463 ug/L	11.463 ppb	09:59:08
2	V 292.402†	-1631.3	-17.4	-0.0774 ug/L	-0.0774 ppb	09:59:08
2	Zn 213.857†	750.1	10.6	0.1021 ug/L	0.1021 ppb	09:59:28
2	SiO2†	665.2	123.2	8.5439 ug/L	8.5439 ppb	10:00:04
3	Sc Radial	5018.9	5018.9	102 %		09:58:16
3	Y RADIAL	5302.8	5302.8	102.2 %		09:58:16
3	Al 396.153Radial†	-174.7	-8.1	-7.1394 ug/L	-7.1394 ppb	09:58:16
3	Ca 317.933Radial†	24.1	8.7	13.572 ug/L	13.572 ppb	09:58:36
3	Fe 238.204 Radial†	11.7	0.0	0.3305 ug/L	0.3305 ppb	09:58:36
3	K 766.490 Radial†	3405.7	377.8	65.833 ug/L	65.833 ppb	09:58:16
3	Mg 279.077 IEC†	0.4	-0.8	-25.901 ug/L	-25.901 ppb	09:58:36
3	Na 589.592 Radial†	-950.3	218.0	71.057 ug/L	71.057 ppb	09:58:16
3	Sr 421.552†	32.4	18.2	0.1190 ug/L	0.1190 ppb	09:58:16
3	Sc 361.383	828600.5	828600.5	100.21 %		09:59:34
3	Y 371.029	662715.4	662715.4	99.297 %		09:59:34
3	Ag 328.068†	120.0	-177.3	-0.8613 ug/L	-0.8613 ppb	09:59:34
3	As 188.979†	-7.5	23.1	9.9737 ug/L	9.9737 ppb	09:59:54
3	B 249.677†	128.0	722.8	17.209 ug/L	17.209 ppb	09:59:34
3	Ba 233.527†	10.0	20.3	0.1618 ug/L	0.1618 ppb	09:59:54
3	Be 313.107†	-3852.8	-144.5	-0.0521 ug/L	-0.0521 ppb	09:59:34
3	Cd 226.502†	-164.9	51.5	0.6021 ug/L	0.6021 ppb	09:59:54
3	Co 228.616†	-67.6	15.9	0.3305 ug/L	0.3305 ppb	09:59:54
3	Cr 267.716†	84.4	17.6	0.2064 ug/L	0.2064 ppb	09:59:54
3	Cu 324.752†	4923.8	192.6	0.5887 ug/L	0.5887 ppb	09:59:34
3	Mn 257.610†	504.6	33.6	0.0388 ug/L	0.0388 ppb	09:59:54
3	Mo 202.031†	38.7	26.8	2.0186 ug/L	2.0186 ppb	09:59:54
3	Ni 231.604†	74.0	-3.2	-0.0825 ug/L	-0.0825 ppb	09:59:54
3	P 214.914†	240.1	-7.4	-4.4150 ug/L	-4.4150 ppb	09:59:54
3	Pb 220.353†	-60.9	6.4	0.7871 ug/L	0.7871 ppb	09:59:54
3	S 181.975 Axial†	48.6	0.7	1.0066 ug/L	1.0066 ppb	09:59:54
3	Sb 206.836†	51.4	16.1	5.7523 ug/L	5.7523 ppb	09:59:54
3	Se 196.026†	-21.4	4.1	2.6753 ug/L	2.6753 ppb	09:59:54
3	Si 251.611†	643.9	111.2	3.6131 ug/L	3.6131 ppb	09:59:54
3	Sn 189.927†	43.6	34.0	6.1496 ug/L	6.1496 ppb	09:59:54
3	Ti 334.940†	-1384.6	189.2	0.3067 ug/L	0.3067 ppb	09:59:34
3	Tl 190.801†	-29.9	4.5	1.3949 ug/L	1.3949 ppb	09:59:54
3	U 409.014†	-3428.5	190.5	5.9824 ug/L	5.9824 ppb	09:59:34
3	V 292.402†	-1589.0	4.5	0.0726 ug/L	0.0726 ppb	09:59:34
3	Zn 213.857†	738.3	8.2	0.0779 ug/L	0.0779 ppb	09:59:54
3	SiO2†	589.0	55.4	3.8077 ug/L	3.8077 ppb	10:00:09

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	835598.4	101.06 %	0.733			0.73%
Sc Radial	4938.9	100 %	1.4			1.40%
Y 371.029	668717.3	100.20 %	0.779			0.78%
Y RADIAL	5253.8	101.3 %	0.82			0.81%
Ag 328.068†	-110.3	-0.5440 ug/L	0.29615	-0.5440 ppb	0.29615	54.44%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-4.0	-3.5372 ug/L	3.38384	-3.5372 ppb	3.38384	95.66%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	22.3	9.6229 ug/L	0.60314	9.6229 ppb	0.60314	6.27%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	744.0	17.715 ug/L	0.5258	17.715 ppb	0.5258	2.97%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	7.1	0.0562 ug/L	0.11262	0.0562 ppb	0.11262	200.24%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-167.7	-0.0604 ug/L	0.01641	-0.0604 ppb	0.01641	27.16%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	5.0	7.8582 ug/L	6.17447	7.8582 ppb	6.17447	78.57%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd	226.502†	51.8	0.6076 ug/L	0.01949	0.6076 ppb	0.01949	3.21%		
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co	228.616†	5.4	0.1139 ug/L	0.19014	0.1139 ppb	0.19014	166.86%		
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr	267.716†	16.9	0.1965 ug/L	0.01193	0.1965 ppb	0.01193	6.07%		
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu	324.752†	171.9	0.5222 ug/L	0.06026	0.5222 ppb	0.06026	11.54%		
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe	238.204 Radial†	-0.8	-6.9111 ug/L	10.02702	-6.9111 ppb	10.02702	145.09%		
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K	766.490 Radial†	387.9	67.591 ug/L	1.7999	67.591 ppb	1.7999	2.66%		
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg	279.077 IEC†	1.0	32.929 ug/L	52.9166	32.929 ppb	52.9166	160.70%		
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn	257.610†	24.1	0.0249 ug/L	0.02261	0.0249 ppb	0.02261	90.65%		
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo	202.031†	25.5	1.9225 ug/L	0.09094	1.9225 ppb	0.09094	4.73%		
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na	589.592 Radial†	220.2	71.760 ug/L	7.2707	71.760 ppb	7.2707	10.13%		
QC value within limits for Na 589.592 Radial Recovery = Not calculated									
Ni	231.604†	2.7	0.0699 ug/L	0.13253	0.0699 ppb	0.13253	189.62%		
QC value within limits for Ni 231.604 Recovery = Not calculated									
P	214.914†	-16.2	-9.5543 ug/L	6.17020	-9.5543 ppb	6.17020	64.58%		
QC value within limits for P 214.914 Recovery = Not calculated									
Pb	220.353†	7.8	0.9599 ug/L	0.83712	0.9599 ppb	0.83712	87.21%		
QC value within limits for Pb 220.353 Recovery = Not calculated									
S	181.975 Axial†	1.0	1.3081 ug/L	4.78452	1.3081 ppb	4.78452	365.76%		
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb	206.836†	11.3	4.0919 ug/L	1.50181	4.0919 ppb	1.50181	36.70%		
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se	196.026†	5.5	3.5548 ug/L	2.10454	3.5548 ppb	2.10454	59.20%		
QC value within limits for Se 196.026 Recovery = Not calculated									
Si	251.611†	87.0	2.8216 ug/L	0.68772	2.8216 ppb	0.68772	24.37%		
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn	189.927†	39.3	7.1035 ug/L	0.83057	7.1035 ppb	0.83057	11.69%		
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr	421.552†	6.5	0.0425 ug/L	0.06622	0.0425 ppb	0.06622	155.69%		
QC value within limits for Sr 421.552 Recovery = Not calculated									
Ti	334.940†	215.6	0.3416 ug/L	0.03765	0.3416 ppb	0.03765	11.02%		
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl	190.801†	5.7	1.7568 ug/L	0.32148	1.7568 ppb	0.32148	18.30%		
QC value within limits for Tl 190.801 Recovery = Not calculated									
U	409.014†	345.2	10.839 ug/L	4.5770	10.839 ppb	4.5770	42.23%		
QC value within limits for U 409.014 Recovery = Not calculated									
V	292.402†	1.0	0.0569 ug/L	0.12714	0.0569 ppb	0.12714	223.55%		
QC value within limits for V 292.402 Recovery = Not calculated									
Zn	213.857†	6.0	0.0572 ug/L	0.05801	0.0572 ppb	0.05801	101.36%		
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†		90.2	6.2435 ug/L	2.37098	6.2435 ppb	2.37098	37.98%		
QC value within limits for SiO2 Recovery = Not calculated									

All analyte(s) passed QC.

## =====

## Analysis Begun

Start Time: 2/12/2010 10:07:08

Plasma On Time: 2/12/2010 07:08:18

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021210.sif

Batch ID:

Results Data Set: 021210

Results Library: C:\pe\Optima3\Results\Results.mdb

## =====

## Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 2/12/2010 08:35:11

IEC File: 011110.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

## =====

## Sequence No.: 1

Autosampler Location: 37

Sample ID: LR2

Date Collected: 2/12/2010 10:07:09

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

## -----

## Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5043.2	5043.2	102 %			10:09:03
1	Y RADIAL	5310.6	5310.6	102.4 %			10:09:03
1	Al 396.153Radial†	-165.9	1.3	1.2003 ug/L		1.2003 ppb	10:09:03

1	Ca 317.933Radial†	30.9	15.3	23.909 ug/L	23.909 ppb	10:09:23
1	Fe 238.204 Radial†	-6.1	-17.4	-11.919 ug/L	-11.919 ppb	10:09:23
1	K 766.490 Radial†	3219.4	179.7	31.299 ug/L	31.299 ppb	10:09:03
1	Mg 279.077 IEC†	4.8	3.5	115.41 ug/L	115.41 ppb	10:09:23
1	Na 589.592 Radial†	-919.8	252.4	82.246 ug/L	82.246 ppb	10:09:03
1	Sr 421.552†	30.1	15.7	0.1028 ug/L	0.1028 ppb	10:09:03
1	Sc 361.383	852165.2	852165.2	103.06 %		10:10:20
1	Y 371.029	679311.1	679311.1	101.78 %		10:10:20
1	Ag 328.068†	220.0	-83.7	-0.4775 ug/L	-0.4775 ppb	10:10:25
1	As 188.979†	-16.9	14.2	6.1119 ug/L	6.1119 ppb	10:10:45
1	B 249.677†	556.2	1134.7	13.075 ug/L	13.075 ppb	10:10:25
1	Ba 233.527†	1245813.5	1208847.8	9636.2 ug/L	9636.2 ppb	10:10:20
1	Be 313.107†	-3873.0	-57.7	-0.0202 ug/L	-0.0202 ppb	10:10:25
1	Cd 226.502†	-193.3	28.5	0.3563 ug/L	0.3563 ppb	10:10:45
1	Co 228.616†	245101.8	237910.5	4895.9 ug/L	4895.9 ppb	10:10:20
1	Cr 267.716†	123.9	53.6	0.6245 ug/L	0.6245 ppb	10:10:45
1	Cu 324.752†	4437.3	-415.3	-1.2983 ug/L	-1.2983 ppb	10:10:25
1	Mn 257.610†	543.3	57.3	0.0439 ug/L	0.0439 ppb	10:10:45
1	Mo 202.031†	-10.9	-22.5	-1.7051 ug/L	-1.7051 ppb	10:10:45
1	Ni 231.604†	208.8	125.6	0.2657 ug/L	0.2657 ppb	10:10:45
1	P 214.914†	16407.1	15673.1	9225.7 ug/L	9225.7 ppb	10:10:25
1	Pb 220.353†	-39.7	28.7	3.5248 ug/L	3.5248 ppb	10:10:45
1	S 181.975 Axial†	42.6	-6.5	-8.8656 ug/L	-8.8656 ppb	10:10:45
1	Sb 206.836†	42.8	6.4	2.2501 ug/L	2.2501 ppb	10:10:45
1	Se 196.026†	-21.9	4.1	2.1816 ug/L	2.1816 ppb	10:10:45
1	Si 251.611†	608.2	58.8	1.9444 ug/L	1.9444 ppb	10:10:45
1	Sn 189.927†	33.0	22.6	4.0797 ug/L	4.0797 ppb	10:10:45
1	Ti 334.940†	-1382.9	229.1	0.3529 ug/L	0.3529 ppb	10:10:25
1	Tl 190.801†	51.3	84.1	4.6526 ug/L	4.6526 ppb	10:10:45
1	U 409.014†	-2935.5	763.6	23.992 ug/L	23.992 ppb	10:10:20
1	V 292.402†	-1639.4	-0.5	0.0427 ug/L	0.0427 ppb	10:10:25
1	Zn 213.857†	997848.3	967503.4	9252.6 ug/L	9252.6 ppb	10:10:20
1	SiO2†	642.4	91.0	6.3937 ug/L	6.3937 ppb	10:11:51
2	Sc Radial	5016.8	5016.8	102 %		10:09:28
2	Y RADIAL	5336.7	5336.7	102.9 %		10:09:28
2	Al 396.153Radial†	-167.3	-0.9	-0.6867 ug/L	-0.6867 ppb	10:09:28
2	Ca 317.933Radial†	31.3	15.7	24.670 ug/L	24.670 ppb	10:09:48
2	Fe 238.204 Radial†	-5.0	-16.3	-0.8297 ug/L	-0.8297 ppb	10:09:48
2	K 766.490 Radial†	3198.1	175.4	30.550 ug/L	30.550 ppb	10:09:28
2	Mg 279.077 IEC†	1.4	0.2	5.9511 ug/L	5.9511 ppb	10:09:48
2	Na 589.592 Radial†	-938.4	229.4	74.759 ug/L	74.759 ppb	10:09:28
2	Sr 421.552†	68.0	53.0	0.3474 ug/L	0.3474 ppb	10:09:28
2	Sc 361.383	854514.1	854514.1	103.34 %		10:10:50
2	Y 371.029	680041.5	680041.5	101.89 %		10:10:50
2	Ag 328.068†	264.1	-41.6	-0.2708 ug/L	-0.2708 ppb	10:10:55
2	As 188.979†	-18.3	13.0	5.5713 ug/L	5.5713 ppb	10:11:15
2	B 249.677†	487.6	1066.9	11.338 ug/L	11.338 ppb	10:10:55
2	Ba 233.527†	1256806.5	1216162.4	9694.5 ug/L	9694.5 ppb	10:10:50
2	Be 313.107†	-3888.5	-62.4	-0.0220 ug/L	-0.0220 ppb	10:10:55
2	Cd 226.502†	-179.3	42.6	0.5190 ug/L	0.5190 ppb	10:11:15
2	Co 228.616†	247890.0	239954.8	4937.9 ug/L	4937.9 ppb	10:10:50
2	Cr 267.716†	102.8	32.8	0.3778 ug/L	0.3778 ppb	10:11:15
2	Cu 324.752†	4389.0	-473.9	-1.4777 ug/L	-1.4777 ppb	10:10:55
2	Mn 257.610†	540.7	53.3	0.0448 ug/L	0.0448 ppb	10:11:15
2	Mo 202.031†	-13.2	-24.6	-1.8653 ug/L	-1.8653 ppb	10:11:15
2	Ni 231.604†	211.3	127.4	0.2865 ug/L	0.2865 ppb	10:11:15
2	P 214.914†	16450.4	15671.2	9224.7 ug/L	9224.7 ppb	10:10:55
2	Pb 220.353†	-32.2	36.0	4.4258 ug/L	4.4258 ppb	10:11:15
2	S 181.975 Axial†	49.6	0.2	0.2647 ug/L	0.2647 ppb	10:11:15
2	Sb 206.836†	37.9	1.6	0.6084 ug/L	0.6084 ppb	10:11:15
2	Se 196.026†	-11.9	13.9	8.5689 ug/L	8.5689 ppb	10:11:15
2	Si 251.611†	634.9	83.1	2.7396 ug/L	2.7396 ppb	10:11:15
2	Sn 189.927†	46.7	35.7	6.4571 ug/L	6.4571 ppb	10:11:15
2	Ti 334.940†	-1410.9	205.6	0.3243 ug/L	0.3243 ppb	10:10:55
2	Tl 190.801†	50.7	83.4	4.2563 ug/L	4.2563 ppb	10:11:15
2	U 409.014†	-2955.1	752.5	23.642 ug/L	23.642 ppb	10:10:50
2	V 292.402†	-1654.0	-10.3	-0.0365 ug/L	-0.0365 ppb	10:10:55
2	Zn 213.857†	1007658.0	974334.3	9318.0 ug/L	9318.0 ppb	10:10:50
2	SiO2†	624.0	71.5	5.0364 ug/L	5.0364 ppb	10:11:56
3	Sc Radial	5153.6	5153.6	105 %		10:09:53
3	Y RADIAL	5479.6	5479.6	105.7 %		10:09:53

3	Al 396.153Radial†	-187.2	-15.6	-13.478 ug/L	-13.478 ppb	10:09:53
3	Ca 317.933Radial†	22.0	6.0	9.4540 ug/L	9.4540 ppb	10:10:13
3	Fe 238.204 Radial†	-5.3	-16.5	-3.3500 ug/L	-3.3500 ppb	10:10:13
3	K 766.490 Radial†	3197.9	91.9	15.993 ug/L	15.993 ppb	10:09:53
3	Mg 279.077 IEC†	0.0	-1.2	-39.243 ug/L	-39.243 ppb	10:10:13
3	Na 589.592 Radial†	-989.6	204.9	66.762 ug/L	66.762 ppb	10:09:53
3	Sr 421.552†	36.1	20.8	0.1366 ug/L	0.1366 ppb	10:09:53
3	Sc 361.383	852132.9	852132.9	103.05 %		10:11:21
3	Y 371.029	677881.9	677881.9	101.57 %		10:11:21
3	Ag 328.068†	248.8	-55.7	-0.3316 ug/L	-0.3316 ppb	10:11:26
3	As 188.979†	-14.9	16.2	6.9572 ug/L	6.9572 ppb	10:11:46
3	B 249.677†	552.0	1130.7	12.889 ug/L	12.889 ppb	10:11:26
3	Ba 233.527†	1251655.6	1214562.5	9681.7 ug/L	9681.7 ppb	10:11:21
3	Be 313.107†	-3888.1	-72.5	-0.0256 ug/L	-0.0256 ppb	10:11:26
3	Cd 226.502†	-179.9	41.5	0.5055 ug/L	0.5055 ppb	10:11:46
3	Co 228.616†	246670.2	239441.4	4927.4 ug/L	4927.4 ppb	10:11:21
3	Cr 267.716†	92.3	22.9	0.2636 ug/L	0.2636 ppb	10:11:46
3	Cu 324.752†	4391.8	-459.3	-1.4292 ug/L	-1.4292 ppb	10:11:26
3	Mn 257.610†	555.3	68.9	0.0640 ug/L	0.0640 ppb	10:11:46
3	Mo 202.031†	-4.7	-16.5	-1.2514 ug/L	-1.2514 ppb	10:11:46
3	Ni 231.604†	203.0	120.0	0.1034 ug/L	0.1034 ppb	10:11:46
3	P 214.914†	16636.5	15896.3	9357.1 ug/L	9357.1 ppb	10:11:26
3	Pb 220.353†	-41.4	26.9	3.3114 ug/L	3.3114 ppb	10:11:46
3	S 181.975 Axial†	48.8	-0.4	-0.5945 ug/L	-0.5945 ppb	10:11:46
3	Sb 206.836†	34.1	-2.0	-0.6492 ug/L	-0.6492 ppb	10:11:46
3	Se 196.026†	-25.6	0.6	-0.1005 ug/L	-0.1005 ppb	10:11:46
3	Si 251.611†	643.6	93.2	3.0626 ug/L	3.0626 ppb	10:11:46
3	Sn 189.927†	38.5	27.9	5.0399 ug/L	5.0399 ppb	10:11:46
3	Ti 334.940†	-1366.4	245.0	0.3926 ug/L	0.3926 ppb	10:11:26
3	Tl 190.801†	53.9	86.6	5.2904 ug/L	5.2904 ppb	10:11:46
3	U 409.014†	-3177.0	529.1	16.629 ug/L	16.629 ppb	10:11:21
3	V 292.402†	-1575.7	61.2	0.4918 ug/L	0.4918 ppb	10:11:26
3	Zn 213.857†	1002646.4	972195.9	9297.5 ug/L	9297.5 ppb	10:11:21
3	SiO2†	659.2	107.3	7.5218 ug/L	7.5218 ppb	10:12:01

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	852937.4	103.15 %		0.165			0.16%
Sc Radial	5071.2	103 %		1.5			1.43%
Y 371.029	679078.2	101.75 %		0.165			0.16%
Y RADIAL	5375.6	103.6 %		1.75			1.69%
Ag 328.068†	-60.3	-0.3600 ug/L		0.10618	-0.3600 ppb	0.10618	29.50%
Al 396.153Radial†	-5.1	-4.3213 ug/L		7.98554	-4.3213 ppb	7.98554	184.79%
As 188.979†	14.5	6.2135 ug/L		0.69848	6.2135 ppb	0.69848	11.24%
B 249.677†	1110.7	12.434 ug/L		0.9535	12.434 ppb	0.9535	7.67%
Ba 233.527†	1213190.9	9670.8 ug/L		30.65	9670.8 ppb	30.65	0.32%
Be 313.107†	-64.2	-0.0226 ug/L		0.00271	-0.0226 ppb	0.00271	11.98%
Ca 317.933Radial†	12.3	19.344 ug/L		8.5738	19.344 ppb	8.5738	44.32%
Cd 226.502†	37.5	0.4602 ug/L		0.09030	0.4602 ppb	0.09030	19.62%
Co 228.616†	239102.2	4920.4 ug/L		21.88	4920.4 ppb	21.88	0.44%
Cr 267.716†	36.5	0.4220 ug/L		0.18443	0.4220 ppb	0.18443	43.71%
Cu 324.752†	-449.5	-1.4018 ug/L		0.09282	-1.4018 ppb	0.09282	6.62%
Fe 238.204 Radial†	-16.7	-5.3663 ug/L		5.81311	-5.3663 ppb	5.81311	108.33%
K 766.490 Radial†	149.0	25.947 ug/L		8.6291	25.947 ppb	8.6291	33.26%
Mg 279.077 IEC†	0.8	27.372 ug/L		79.5188	27.372 ppb	79.5188	290.51%
Mn 257.610†	59.9	0.0509 ug/L		0.01134	0.0509 ppb	0.01134	22.28%
Mo 202.031†	-21.2	-1.6073 ug/L		0.31845	-1.6073 ppb	0.31845	19.81%
Na 589.592 Radial†	228.9	74.589 ug/L		7.7432	74.589 ppb	7.7432	10.38%
Ni 231.604†	124.3	0.2185 ug/L		0.10029	0.2185 ppb	0.10029	45.89%
P 214.914†	15746.9	9269.2 ug/L		76.17	9269.2 ppb	76.17	0.82%
Pb 220.353†	30.5	3.7540 ug/L		0.59152	3.7540 ppb	0.59152	15.76%
S 181.975 Axial†	-2.2	-3.0651 ug/L		5.04168	-3.0651 ppb	5.04168	164.48%
Sb 206.836†	2.0	0.7364 ug/L		1.45388	0.7364 ppb	1.45388	197.42%
Se 196.026†	6.2	3.5500 ug/L		4.49376	3.5500 ppb	4.49376	126.59%
Si 251.611†	78.3	2.5822 ug/L		0.57545	2.5822 ppb	0.57545	22.29%
Sn 189.927†	28.7	5.1922 ug/L		1.19598	5.1922 ppb	1.19598	23.03%
Sr 421.552†	29.9	0.1956 ug/L		0.13256	0.1956 ppb	0.13256	67.78%
Ti 334.940†	226.6	0.3566 ug/L		0.03432	0.3566 ppb	0.03432	9.63%
Tl 190.801†	84.7	4.7331 ug/L		0.52173	4.7331 ppb	0.52173	11.02%



U 409.014†	681.7	21.421 ug/L	4.1538	21.421 ppb	4.1538	19.39%
V 292.402†	16.8	0.1660 ug/L	0.28492	0.1660 ppb	0.28492	171.61%
Zn 213.857†	971344.5	9289.4 ug/L	33.41	9289.4 ppb	33.41	0.36%
SiO2†	89.9	6.3173 ug/L	1.24445	6.3173 ppb	1.24445	19.70%

Sequence No.: 2

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/12/2010 10:14:13

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5052.6	5052.6	103 %		10:16:06
1	Y RADIAL	5313.0	5313.0	102.4 %		10:16:06
1	Al 396.153Radial†	5780.6	5795.6	5002.4 ug/L	5002.4 ppb	10:16:06
1	Ca 317.933Radial†	3226.9	3129.3	4904.7 ug/L	4904.7 ppb	10:16:26
1	Fe 238.204 Radial†	576.4	550.2	5027.5 ug/L	5027.5 ppb	10:16:26
1	K 766.490 Radial†	31552.6	27780.6	4837.2 ug/L	4837.2 ppb	10:16:06
1	Mg 279.077 IEC†	158.8	153.6	5051.4 ug/L	5051.4 ppb	10:16:26
1	Na 589.592 Radial†	31878.6	32211.5	10498 ug/L	10498 ppb	10:16:06
1	Sr 421.552†	78853.7	76818.3	503.50 ug/L	503.50 ppb	10:16:06
1	Sc 361.383	845588.8	845588.8	102.26 %		10:17:23
1	Y 371.029	669818.2	669818.2	100.36 %		10:17:23
1	Ag 328.068†	103065.3	100486.9	488.47 ug/L	488.47 ppb	10:17:28
1	As 188.979†	1126.8	1132.5	492.52 ug/L	492.52 ppb	10:17:48
1	B 249.677†	20865.8	20998.9	497.79 ug/L	497.79 ppb	10:17:28
1	Ba 233.527†	62339.0	60969.5	487.23 ug/L	487.23 ppb	10:17:28
1	Be 313.107†	1349924.8	1323746.4	484.55 ug/L	484.55 ppb	10:17:23
1	Cd 226.502†	41982.7	41269.5	481.62 ug/L	481.62 ppb	10:17:28
1	Co 228.616†	24092.4	23642.5	486.13 ug/L	486.13 ppb	10:17:28
1	Cr 267.716†	41711.7	40721.8	484.54 ug/L	484.54 ppb	10:17:28
1	Cu 324.752†	168280.8	159835.2	491.33 ug/L	491.33 ppb	10:17:28
1	Mn 257.610†	444605.1	434294.5	486.91 ug/L	486.91 ppb	10:17:23
1	Mo 202.031†	6571.5	6414.2	483.65 ug/L	483.65 ppb	10:17:48
1	Ni 231.604†	19362.6	18857.0	483.00 ug/L	483.00 ppb	10:17:28
1	P 214.914†	4437.8	4092.5	2313.0 ug/L	2313.0 ppb	10:17:48
1	Pb 220.353†	3968.9	3948.2	485.57 ug/L	485.57 ppb	10:17:48
1	S 181.975 Axial†	755.1	690.6	946.76 ug/L	946.76 ppb	10:17:48
1	Sb 206.836†	1465.2	1397.6	503.50 ug/L	503.50 ppb	10:17:48
1	Se 196.026†	751.3	760.0	514.49 ug/L	514.49 ppb	10:17:48
1	Si 251.611†	76656.7	74428.7	2428.7 ug/L	2428.7 ppb	10:17:28
1	Sn 189.927†	2742.1	2671.9	484.03 ug/L	484.03 ppb	10:17:48
1	Ti 334.940†	305790.0	300592.7	485.14 ug/L	485.14 ppb	10:17:28
1	Tl 190.801†	1575.9	1575.3	491.70 ug/L	491.70 ppb	10:17:48
1	U 409.014†	12648.5	15980.5	500.11 ug/L	500.11 ppb	10:17:28
1	V 292.402†	64950.4	65103.0	492.48 ug/L	492.48 ppb	10:17:28
1	Zn 213.857†	52714.2	50818.8	481.51 ug/L	481.51 ppb	10:17:28
1	SiO2†	77009.3	74772.4	5204.0 ug/L	5204.0 ppb	10:18:56
2	Sc Radial	4940.3	4940.3	100 %		10:16:31
2	Y RADIAL	5232.4	5232.4	100.9 %		10:16:31
2	Al 396.153Radial†	5633.1	5776.7	4986.3 ug/L	4986.3 ppb	10:16:31
2	Ca 317.933Radial†	3198.6	3172.4	4972.4 ug/L	4972.4 ppb	10:16:51
2	Fe 238.204 Radial†	565.4	552.0	5044.3 ug/L	5044.3 ppb	10:16:51
2	K 766.490 Radial†	31139.4	28067.8	4887.2 ug/L	4887.2 ppb	10:16:31
2	Mg 279.077 IEC†	156.4	154.7	5087.4 ug/L	5087.4 ppb	10:16:51
2	Na 589.592 Radial†	31073.2	32115.0	10466 ug/L	10466 ppb	10:16:31
2	Sr 421.552†	76952.7	76670.6	502.53 ug/L	502.53 ppb	10:16:31
2	Sc 361.383	852346.1	852346.1	103.08 %		10:17:54
2	Y 371.029	673658.9	673658.9	100.94 %		10:17:54
2	Ag 328.068†	103856.6	100455.6	488.33 ug/L	488.33 ppb	10:17:59
2	As 188.979†	1104.9	1102.5	479.59 ug/L	479.59 ppb	10:18:19
2	B 249.677†	21126.4	21090.1	499.96 ug/L	499.96 ppb	10:17:59
2	Ba 233.527†	62874.4	61005.6	487.52 ug/L	487.52 ppb	10:17:59
2	Be 313.107†	1357392.8	1320525.9	483.38 ug/L	483.38 ppb	10:17:54
2	Cd 226.502†	42451.6	41398.9	483.13 ug/L	483.13 ppb	10:17:59
2	Co 228.616†	24344.9	23700.7	487.30 ug/L	487.30 ppb	10:17:59
2	Cr 267.716†	42131.9	40806.1	485.55 ug/L	485.55 ppb	10:17:59
2	Cu 324.752†	169281.8	159501.7	490.31 ug/L	490.31 ppb	10:17:59
2	Mn 257.610†	447897.6	434041.8	486.63 ug/L	486.63 ppb	10:17:54
2	Mo 202.031†	6517.0	6310.3	475.83 ug/L	475.83 ppb	10:18:19
2	Ni 231.604†	19603.3	18940.5	485.14 ug/L	485.14 ppb	10:17:59

2	P 214.914†	4386.7	4008.6	2263.7 ug/L	2263.7 ppb	10:18:19
2	Pb 220.353†	3924.4	3874.3	476.50 ug/L	476.50 ppb	10:18:19
2	S 181.975 Axial†	760.2	689.7	945.44 ug/L	945.44 ppb	10:18:19
2	Sb 206.836†	1459.6	1380.9	497.34 ug/L	497.34 ppb	10:18:19
2	Se 196.026†	725.4	729.1	494.32 ug/L	494.32 ppb	10:18:19
2	Si 251.611†	77358.5	74515.3	2431.6 ug/L	2431.6 ppb	10:17:59
2	Sn 189.927†	2703.4	2613.2	473.42 ug/L	473.42 ppb	10:18:19
2	Ti 334.940†	308289.9	300647.2	485.23 ug/L	485.23 ppb	10:17:59
2	Tl 190.801†	1559.8	1547.5	483.09 ug/L	483.09 ppb	10:18:19
2	U 409.014†	12555.5	15792.2	494.19 ug/L	494.19 ppb	10:17:59
2	V 292.402†	65401.5	65037.1	491.86 ug/L	491.86 ppb	10:17:59
2	Zn 213.857†	53159.7	50842.3	481.72 ug/L	481.72 ppb	10:17:59
2	SiO2†	76474.8	73656.9	5126.4 ug/L	5126.4 ppb	10:19:01
3	Sc Radial	5047.3	5047.3	103 %		10:16:56
3	Y RADIAL	5362.3	5362.3	103.4 %		10:16:56
3	Al 396.153Radial†	5735.2	5757.3	4969.2 ug/L	4969.2 ppb	10:16:56
3	Ca 317.933Radial†	3217.0	3122.9	4894.7 ug/L	4894.7 ppb	10:17:16
3	Fe 238.204 Radial†	569.1	543.6	4967.6 ug/L	4967.6 ppb	10:17:16
3	K 766.490 Radial†	31556.7	27817.1	4843.6 ug/L	4843.6 ppb	10:16:56
3	Mg 279.077 IEC†	159.6	154.5	5081.9 ug/L	5081.9 ppb	10:17:16
3	Na 589.592 Radial†	31486.0	31861.4	10384 ug/L	10384 ppb	10:16:56
3	Sr 421.552†	78461.2	76516.6	501.52 ug/L	501.52 ppb	10:16:56
3	Sc 361.383	844312.5	844312.5	102.11 %		10:18:25
3	Y 371.029	667690.6	667690.6	100.04 %		10:18:25
3	Ag 328.068†	103133.4	100706.0	489.51 ug/L	489.51 ppb	10:18:30
3	As 188.979†	1120.2	1127.8	490.46 ug/L	490.46 ppb	10:18:50
3	B 249.677†	20972.4	21134.2	501.03 ug/L	501.03 ppb	10:18:30
3	Ba 233.527†	62165.8	60892.0	486.61 ug/L	486.61 ppb	10:18:30
3	Be 313.107†	1346092.5	1321988.6	483.91 ug/L	483.91 ppb	10:18:25
3	Cd 226.502†	41811.5	41163.9	480.40 ug/L	480.40 ppb	10:18:30
3	Co 228.616†	24047.1	23633.7	485.94 ug/L	485.94 ppb	10:18:30
3	Cr 267.716†	41678.0	40750.5	484.88 ug/L	484.88 ppb	10:18:30
3	Cu 324.752†	168555.3	160352.8	492.92 ug/L	492.92 ppb	10:18:30
3	Mn 257.610†	443576.0	433943.8	486.51 ug/L	486.51 ppb	10:18:25
3	Mo 202.031†	6547.2	6400.1	482.59 ug/L	482.59 ppb	10:18:50
3	Ni 231.604†	19353.2	18876.4	483.50 ug/L	483.50 ppb	10:18:30
3	P 214.914†	4409.7	4071.6	2300.4 ug/L	2300.4 ppb	10:18:50
3	Pb 220.353†	3931.2	3917.1	481.76 ug/L	481.76 ppb	10:18:50
3	S 181.975 Axial†	761.3	697.8	956.65 ug/L	956.65 ppb	10:18:50
3	Sb 206.836†	1458.1	1392.9	501.76 ug/L	501.76 ppb	10:18:50
3	Se 196.026†	734.8	745.0	504.49 ug/L	504.49 ppb	10:18:50
3	Si 251.611†	76674.5	74559.4	2433.0 ug/L	2433.0 ppb	10:18:30
3	Sn 189.927†	2714.8	2649.2	479.93 ug/L	479.93 ppb	10:18:50
3	Ti 334.940†	306019.5	301269.5	486.23 ug/L	486.23 ppb	10:18:30
3	Tl 190.801†	1559.9	1562.0	487.57 ug/L	487.57 ppb	10:18:50
3	U 409.014†	12543.2	15896.1	497.46 ug/L	497.46 ppb	10:18:30
3	V 292.402†	64840.7	65091.6	492.38 ug/L	492.38 ppb	10:18:30
3	Zn 213.857†	52570.6	50756.2	480.91 ug/L	480.91 ppb	10:18:30
3	SiO2†	76821.2	74702.1	5199.1 ug/L	5199.1 ppb	10:19:06

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	847415.8	102.48 %		0.522			0.51%
Sc Radial	5013.4	102 %		1.3			1.26%
Y 371.029	670389.2	100.45 %		0.453			0.45%
Y RADIAL	5302.6	102.2 %		1.26			1.24%
Ag 328.068†	100549.5	488.77 ug/L		0.646	488.77 ppb	0.646	0.13%
QC value within limits for Ag 328.068 Recovery = 97.75%							
Al 396.153Radial†	5776.5	4986.0 ug/L		16.60	4986.0 ppb	16.60	0.33%
QC value within limits for Al 396.153Radial Recovery = 99.72%							
As 188.979†	1120.9	487.52 ug/L		6.945	487.52 ppb	6.945	1.42%
QC value within limits for As 188.979 Recovery = 97.50%							
B 249.677†	21074.4	499.59 ug/L		1.646	499.59 ppb	1.646	0.33%
QC value within limits for B 249.677 Recovery = 99.92%							
Ba 233.527†	60955.7	487.12 ug/L		0.463	487.12 ppb	0.463	0.10%
QC value within limits for Ba 233.527 Recovery = 97.42%							
Be 313.107†	1322087.0	483.95 ug/L		0.589	483.95 ppb	0.589	0.12%
QC value within limits for Be 313.107 Recovery = 96.79%							
Ca 317.933Radial†	3141.5	4923.9 ug/L		42.26	4923.9 ppb	42.26	0.86%

QC value within limits for Ca 317.933 Radial Recovery = 98.48%

Cd 226.502†	41277.5	481.72 ug/L	1.370	481.72 ppb	1.370	0.28%
QC value within limits for Cd 226.502 Recovery = 96.34%						
Co 228.616†	23659.0	486.46 ug/L	0.739	486.46 ppb	0.739	0.15%
QC value within limits for Co 228.616 Recovery = 97.29%						
Cr 267.716†	40759.5	484.99 ug/L	0.510	484.99 ppb	0.510	0.11%
QC value within limits for Cr 267.716 Recovery = 97.00%						
Cu 324.752†	159896.6	491.52 ug/L	1.316	491.52 ppb	1.316	0.27%
QC value within limits for Cu 324.752 Recovery = 98.30%						
Fe 238.204 Radial†	548.6	5013.1 ug/L	40.31	5013.1 ppb	40.31	0.80%
QC value within limits for Fe 238.204 Radial Recovery = 100.26%						
K 766.490 Radial†	27888.5	4856.0 ug/L	27.24	4856.0 ppb	27.24	0.56%
QC value within limits for K 766.490 Radial Recovery = 97.12%						
Mg 279.077 IEC†	154.2	5073.6 ug/L	19.38	5073.6 ppb	19.38	0.38%
QC value within limits for Mg 279.077 IEC Recovery = 101.47%						
Mn 257.610†	434093.4	486.68 ug/L	0.206	486.68 ppb	0.206	0.04%
QC value within limits for Mn 257.610 Recovery = 97.34%						
Mo 202.031†	6374.9	480.69 ug/L	4.242	480.69 ppb	4.242	0.88%
QC value within limits for Mo 202.031 Recovery = 96.14%						
Na 589.592 Radial†	32062.6	10449 ug/L	58.9	10449 ppb	58.9	0.56%
QC value within limits for Na 589.592 Radial Recovery = 104.49%						
Ni 231.604†	18891.3	483.88 ug/L	1.119	483.88 ppb	1.119	0.23%
QC value within limits for Ni 231.604 Recovery = 96.78%						
P 214.914†	4057.6	2292.4 ug/L	25.61	2292.4 ppb	25.61	1.12%
QC value within limits for P 214.914 Recovery = 91.70%						
Pb 220.353†	3913.2	481.28 ug/L	4.558	481.28 ppb	4.558	0.95%
QC value within limits for Pb 220.353 Recovery = 96.26%						
S 181.975 Axial†	692.7	949.62 ug/L	6.126	949.62 ppb	6.126	0.65%
QC value within limits for S 181.975 Axial Recovery = 94.96%						
Sb 206.836†	1390.5	500.87 ug/L	3.176	500.87 ppb	3.176	0.63%
QC value within limits for Sb 206.836 Recovery = 100.17%						
Se 196.026†	744.7	504.43 ug/L	10.086	504.43 ppb	10.086	2.00%
QC value within limits for Se 196.026 Recovery = 100.89%						
Si 251.611†	74501.1	2431.1 ug/L	2.19	2431.1 ppb	2.19	0.09%
QC value within limits for Si 251.611 Recovery = 97.24%						
Sn 189.927†	2644.8	479.13 ug/L	5.350	479.13 ppb	5.350	1.12%
QC value within limits for Sn 189.927 Recovery = 95.83%						
Sr 421.552†	76668.5	502.52 ug/L	0.989	502.52 ppb	0.989	0.20%
QC value within limits for Sr 421.552 Recovery = 100.50%						
Ti 334.940†	300836.4	485.53 ug/L	0.603	485.53 ppb	0.603	0.12%
QC value within limits for Ti 334.940 Recovery = 97.11%						
Tl 190.801†	1561.6	487.45 ug/L	4.307	487.45 ppb	4.307	0.88%
QC value within limits for Tl 190.801 Recovery = 97.49%						
U 409.014†	15889.6	497.25 ug/L	2.964	497.25 ppb	2.964	0.60%
QC value within limits for U 409.014 Recovery = 99.45%						
V 292.402†	65077.2	492.24 ug/L	0.331	492.24 ppb	0.331	0.07%
QC value within limits for V 292.402 Recovery = 98.45%						
Zn 213.857†	50805.8	481.38 ug/L	0.418	481.38 ppb	0.418	0.09%
QC value within limits for Zn 213.857 Recovery = 96.28%						
SiO2†	74377.1	5176.5 ug/L	43.47	5176.5 ppb	43.47	0.84%
QC value within limits for SiO2 Recovery = 96.80%						

All analyte(s) passed QC.

Sequence No.: 3  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/12/2010 10:21:17  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4973.4	4973.4	101 %		10:23:10
1	Y RADIAL	5272.2	5272.2	101.7 %		10:23:10
1	Al 396.153Radial†	-188.9	-23.8	-20.685 ug/L	-20.685 ppb	10:23:10
1	Ca 317.933Radial†	29.1	13.9	21.732 ug/L	21.732 ppb	10:23:30
1	Fe 238.204 Radial†	12.2	0.6	5.5981 ug/L	5.5981 ppb	10:23:30
1	K 766.490 Radial†	3094.0	99.6	17.337 ug/L	17.337 ppb	10:23:10
1	Mg 279.077 IEC†	2.0	0.7	24.481 ug/L	24.481 ppb	10:23:30
1	Na 589.592 Radial†	-935.1	224.6	73.196 ug/L	73.196 ppb	10:23:10
1	Sr 421.552†	12.4	-1.4	-0.0093 ug/L	-0.0093 ppb	10:23:10
1	Sc 361.383	826339.9	826339.9	99.936 %		10:24:27
1	Y 371.029	661830.1	661830.1	99.165 %		10:24:27
1	Ag 328.068†	227.7	-69.2	-0.3414 ug/L	-0.3414 ppb	10:24:27
1	As 188.979†	-15.1	15.5	6.7019 ug/L	6.7019 ppb	10:24:47
1	B 249.677†	-65.8	529.2	12.600 ug/L	12.600 ppb	10:24:47
1	Ba 233.527†	-16.9	-6.6	-0.0529 ug/L	-0.0529 ppb	10:24:47
1	Be 313.107†	-3862.3	-164.4	-0.0592 ug/L	-0.0592 ppb	10:24:27
1	Cd 226.502†	-183.6	32.3	0.3785 ug/L	0.3785 ppb	10:24:47
1	Co 228.616†	-75.1	8.2	0.1696 ug/L	0.1696 ppb	10:24:47
1	Cr 267.716†	101.2	34.6	0.4074 ug/L	0.4074 ppb	10:24:47
1	Cu 324.752†	4908.0	190.2	0.5793 ug/L	0.5793 ppb	10:24:27
1	Mn 257.610†	508.6	39.1	0.0433 ug/L	0.0433 ppb	10:24:47
1	Mo 202.031†	27.2	15.3	1.1557 ug/L	1.1557 ppb	10:24:47
1	Ni 231.604†	76.6	-0.4	-0.0095 ug/L	-0.0095 ppb	10:24:47
1	P 214.914†	232.9	-13.9	-8.2980 ug/L	-8.2980 ppb	10:24:47
1	Pb 220.353†	-62.0	5.1	0.6233 ug/L	0.6233 ppb	10:24:47
1	S 181.975 Axial†	49.2	1.5	2.0265 ug/L	2.0265 ppb	10:24:47
1	Sb 206.836†	45.1	10.0	3.5559 ug/L	3.5559 ppb	10:24:47
1	Se 196.026†	-19.2	6.2	4.0532 ug/L	4.0532 ppb	10:24:47
1	Si 251.611†	593.3	62.3	2.0243 ug/L	2.0243 ppb	10:24:47
1	Sn 189.927†	31.5	22.0	3.9909 ug/L	3.9909 ppb	10:24:47
1	Ti 334.940†	-1331.9	238.2	0.3808 ug/L	0.3808 ppb	10:24:27
1	Tl 190.801†	-35.6	-1.3	-0.4091 ug/L	-0.4091 ppb	10:24:47
1	U 409.014†	-3279.8	330.0	10.360 ug/L	10.360 ppb	10:24:27
1	V 292.402†	-1593.8	-4.6	0.0010 ug/L	0.0010 ppb	10:24:27
1	Zn 213.857†	778.2	50.1	0.4776 ug/L	0.4776 ppb	10:24:47
1	SiO2†	604.4	72.4	5.0200 ug/L	5.0200 ppb	10:25:43
2	Sc Radial	4938.2	4938.2	100 %		10:23:35
2	Y RADIAL	5259.4	5259.4	101.4 %		10:23:35
2	Al 396.153Radial†	-171.3	-7.5	-6.5669 ug/L	-6.5669 ppb	10:23:35
2	Ca 317.933Radial†	21.2	6.2	9.6844 ug/L	9.6844 ppb	10:23:55
2	Fe 238.204 Radial†	11.7	0.2	2.0015 ug/L	2.0015 ppb	10:23:55
2	K 766.490 Radial†	3158.6	185.9	32.388 ug/L	32.388 ppb	10:23:35
2	Mg 279.077 IEC†	1.9	0.7	22.013 ug/L	22.013 ppb	10:23:55
2	Na 589.592 Radial†	-960.8	192.4	62.693 ug/L	62.693 ppb	10:23:35
2	Sr 421.552†	20.4	6.7	0.0436 ug/L	0.0436 ppb	10:23:35
2	Sc 361.383	823714.4	823714.4	99.618 %		10:24:52
2	Y 371.029	658967.9	658967.9	98.736 %		10:24:52
2	Ag 328.068†	263.1	-33.0	-0.1656 ug/L	-0.1656 ppb	10:24:52
2	As 188.979†	-15.0	15.6	6.7202 ug/L	6.7202 ppb	10:25:12
2	B 249.677†	-98.0	496.6	11.824 ug/L	11.824 ppb	10:25:12
2	Ba 233.527†	3.3	13.6	0.1091 ug/L	0.1091 ppb	10:25:12
2	Be 313.107†	-3849.1	-163.5	-0.0593 ug/L	-0.0593 ppb	10:24:52
2	Cd 226.502†	-177.6	37.7	0.4426 ug/L	0.4426 ppb	10:25:12
2	Co 228.616†	-74.8	8.2	0.1727 ug/L	0.1727 ppb	10:25:12
2	Cr 267.716†	95.2	28.9	0.3400 ug/L	0.3400 ppb	10:25:12
2	Cu 324.752†	4898.9	196.8	0.5997 ug/L	0.5997 ppb	10:24:52
2	Mn 257.610†	508.1	40.2	0.0443 ug/L	0.0443 ppb	10:25:12
2	Mo 202.031†	32.1	20.4	1.5357 ug/L	1.5357 ppb	10:25:12
2	Ni 231.604†	99.3	22.7	0.5813 ug/L	0.5813 ppb	10:25:12

2	P 214.914†	230.1	-16.1	-9.5440 ug/L	-9.5440 ppb	10:25:12
2	Pb 220.353†	-57.8	9.1	1.1170 ug/L	1.1170 ppb	10:25:12
2	S 181.975 Axial†	51.5	3.9	5.3121 ug/L	5.3121 ppb	10:25:12
2	Sb 206.836†	36.4	1.4	0.6283 ug/L	0.6283 ppb	10:25:12
2	Se 196.026†	-13.8	11.6	7.5783 ug/L	7.5783 ppb	10:25:12
2	Si 251.611†	583.4	54.3	1.7578 ug/L	1.7578 ppb	10:25:12
2	Sn 189.927†	42.8	33.5	6.0512 ug/L	6.0512 ppb	10:25:12
2	Ti 334.940†	-1454.1	111.2	0.1748 ug/L	0.1748 ppb	10:24:52
2	Tl 190.801†	-30.9	3.3	1.0351 ug/L	1.0351 ppb	10:25:12
2	U 409.014†	-3296.8	302.5	9.4969 ug/L	9.4969 ppb	10:24:52
2	V 292.402†	-1553.7	30.6	0.2678 ug/L	0.2678 ppb	10:24:52
2	Zn 213.857†	767.7	42.0	0.3972 ug/L	0.3972 ppb	10:25:12
2	SiO2†	602.6	72.6	5.0230 ug/L	5.0230 ppb	10:25:48
3	Sc Radial	4874.2	4874.2	99.0 %		10:24:00
3	Y RADIAL	5216.9	5216.9	100.6 %		10:24:00
3	Al 396.153Radial†	-144.7	17.1	14.800 ug/L	14.800 ppb	10:24:00
3	Ca 317.933Radial†	22.7	8.0	12.529 ug/L	12.529 ppb	10:24:20
3	Fe 238.204 Radial†	11.2	-0.1	-0.6489 ug/L	-0.6489 ppb	10:24:20
3	K 766.490 Radial†	3227.1	296.5	51.674 ug/L	51.674 ppb	10:24:00
3	Mg 279.077 IEC†	1.4	0.2	7.2093 ug/L	7.2093 ppb	10:24:20
3	Na 589.592 Radial†	-1002.1	138.1	44.992 ug/L	44.992 ppb	10:24:00
3	Sr 421.552†	3.6	-10.0	-0.0656 ug/L	-0.0656 ppb	10:24:00
3	Sc 361.383	821270.5	821270.5	99.322 %		10:25:17
3	Y 371.029	658160.2	658160.2	98.615 %		10:25:17
3	Ag 328.068†	363.6	69.0	0.3239 ug/L	0.3239 ppb	10:25:17
3	As 188.979†	-25.1	5.4	2.3326 ug/L	2.3326 ppb	10:25:37
3	B 249.677†	-119.9	474.3	11.293 ug/L	11.293 ppb	10:25:37
3	Ba 233.527†	11.5	21.9	0.1736 ug/L	0.1736 ppb	10:25:37
3	Be 313.107†	-3881.8	-207.9	-0.0756 ug/L	-0.0756 ppb	10:25:17
3	Cd 226.502†	-197.7	17.0	0.2005 ug/L	0.2005 ppb	10:25:37
3	Co 228.616†	-67.1	15.8	0.3263 ug/L	0.3263 ppb	10:25:37
3	Cr 267.716†	80.1	14.0	0.1623 ug/L	0.1623 ppb	10:25:37
3	Cu 324.752†	5011.4	324.6	0.9928 ug/L	0.9928 ppb	10:25:17
3	Mn 257.610†	486.0	19.4	0.0214 ug/L	0.0214 ppb	10:25:37
3	Mo 202.031†	24.6	12.9	0.9720 ug/L	0.9720 ppb	10:25:37
3	Ni 231.604†	87.0	10.5	0.2699 ug/L	0.2699 ppb	10:25:37
3	P 214.914†	225.5	-20.0	-11.927 ug/L	-11.927 ppb	10:25:37
3	Pb 220.353†	-65.1	1.6	0.2019 ug/L	0.2019 ppb	10:25:37
3	S 181.975 Axial†	47.8	0.3	0.4001 ug/L	0.4001 ppb	10:25:37
3	Sb 206.836†	39.7	4.8	1.7850 ug/L	1.7850 ppb	10:25:37
3	Se 196.026†	-23.6	1.6	1.0519 ug/L	1.0519 ppb	10:25:37
3	Si 251.611†	555.5	28.0	0.9034 ug/L	0.9034 ppb	10:25:37
3	Sn 189.927†	38.1	28.8	5.2170 ug/L	5.2170 ppb	10:25:37
3	Ti 334.940†	-1482.0	78.8	0.1243 ug/L	0.1243 ppb	10:25:17
3	Tl 190.801†	-32.6	1.5	0.4567 ug/L	0.4567 ppb	10:25:37
3	U 409.014†	-3298.5	291.0	9.1362 ug/L	9.1362 ppb	10:25:17
3	V 292.402†	-1619.5	-40.4	-0.2703 ug/L	-0.2703 ppb	10:25:17
3	Zn 213.857†	760.7	37.3	0.3537 ug/L	0.3537 ppb	10:25:37
3	SiO2†	577.6	49.1	3.4011 ug/L	3.4011 ppb	10:25:53

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	823774.9	99.625 %		0.3066			0.31%
Sc Radial	4928.6	100 %		1.0			1.02%
Y 371.029	659652.7	98.838 %		0.2889			0.29%
Y RADIAL	5249.5	101.2 %		0.56			0.55%
Ag 328.068†	-11.1	-0.0610 ug/L		0.34478	-0.0610 ppb	0.34478	564.84%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-4.7	-4.1507 ug/L		17.86573	-4.1507 ppb	17.86573	430.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	12.2	5.2516 ug/L		2.52789	5.2516 ppb	2.52789	48.14%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	500.1	11.906 ug/L		0.6572	11.906 ppb	0.6572	5.52%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	9.6	0.0766 ug/L		0.11666	0.0766 ppb	0.11666	152.30%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-178.6	-0.0647 ug/L		0.00948	-0.0647 ppb	0.00948	14.64%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	9.3	14.649 ug/L		6.2975	14.649 ppb	6.2975	42.99%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	29.0	0.3405 ug/L	0.12545	0.3405 ppb	0.12545	36.84%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	10.7	0.2228 ug/L	0.08958	0.2228 ppb	0.08958	40.20%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	25.8	0.3033 ug/L	0.12660	0.3033 ppb	0.12660	41.75%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	237.2	0.7240 ug/L	0.23308	0.7240 ppb	0.23308	32.20%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.3	2.3169 ug/L	3.13539	2.3169 ppb	3.13539	135.33%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	194.0	33.800 ug/L	17.2121	33.800 ppb	17.2121	50.92%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.5	17.901 ug/L	9.3410	17.901 ppb	9.3410	52.18%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	32.9	0.0363 ug/L	0.01297	0.0363 ppb	0.01297	35.69%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	16.2	1.2211 ug/L	0.28747	1.2211 ppb	0.28747	23.54%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	185.0	60.294 ug/L	14.2544	60.294 ppb	14.2544	23.64%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	11.0	0.2806 ug/L	0.29551	0.2806 ppb	0.29551	105.33%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-16.7	-9.9229 ug/L	1.84381	-9.9229 ppb	1.84381	18.58%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	5.3	0.6474 ug/L	0.45803	0.6474 ppb	0.45803	70.75%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	1.9	2.5795 ug/L	2.50224	2.5795 ppb	2.50224	97.00%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	5.4	1.9897 ug/L	1.47448	1.9897 ppb	1.47448	74.10%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	6.5	4.2278 ug/L	3.26673	4.2278 ppb	3.26673	77.27%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	48.2	1.5618 ug/L	0.58558	1.5618 ppb	0.58558	37.49%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	28.1	5.0864 ug/L	1.03634	5.0864 ppb	1.03634	20.37%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1.6	-0.0104 ug/L	0.05463	-0.0104 ppb	0.05463	523.54%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	142.7	0.2266 ug/L	0.13587	0.2266 ppb	0.13587	59.96%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	1.2	0.3609 ug/L	0.72685	0.3609 ppb	0.72685	201.41%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	307.8	9.6644 ug/L	0.62886	9.6644 ppb	0.62886	6.51%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-4.8	-0.0005 ug/L	0.26907	-0.0005 ppb	0.26907	>999.9%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	43.1	0.4095 ug/L	0.06286	0.4095 ppb	0.06286	15.35%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	64.7	4.4814 ug/L	0.93550	4.4814 ppb	0.93550	20.88%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 14  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/12/2010 11:35:59  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4750.8	4750.8	96.5 %			11:37:51
1	Y RADIAL	5058.9	5058.9	97.54 %			11:37:51
1	Al 396.153Radial†	5504.3	5867.2	5064.5 ug/L		5064.5 ppb	11:37:51
1	Ca 317.933Radial†	3195.8	3296.8	5167.3 ug/L		5167.3 ppb	11:38:11
1	Fe 238.204 Radial†	557.6	566.4	5175.4 ug/L		5175.4 ppb	11:38:11
1	K 766.490 Radial†	30062.5	28190.1	4908.6 ug/L		4908.6 ppb	11:37:51
1	Mg 279.077 IEC†	153.6	158.0	5197.9 ug/L		5197.9 ppb	11:38:11
1	Na 589.592 Radial†	28752.2	30945.4	10085 ug/L		10085 ppb	11:37:51
1	Sr 421.552†	73569.9	76225.0	499.61 ug/L		499.61 ppb	11:37:51
1	Sc 361.383	842964.8	842964.8	101.95 %			11:39:08
1	Y 371.029	666155.0	666155.0	99.813 %			11:39:08
1	Ag 328.068†	102921.3	100659.5	489.36 ug/L		489.36 ppb	11:39:13
1	As 188.979†	1110.1	1119.6	486.99 ug/L		486.99 ppb	11:39:33
1	B 249.677†	20313.2	20520.4	486.37 ug/L		486.37 ppb	11:39:13
1	Ba 233.527†	62170.9	60994.3	487.43 ug/L		487.43 ppb	11:39:13
1	Be 313.107†	1345096.1	1323118.9	484.32 ug/L		484.32 ppb	11:39:08
1	Cd 226.502†	41990.8	41405.3	483.19 ug/L		483.19 ppb	11:39:13
1	Co 228.616†	24121.0	23743.8	488.21 ug/L		488.21 ppb	11:39:13
1	Cr 267.716†	41731.2	40868.0	486.28 ug/L		486.28 ppb	11:39:13
1	Cu 324.752†	167441.2	159523.8	490.39 ug/L		490.39 ppb	11:39:13
1	Mn 257.610†	445309.0	436338.3	489.21 ug/L		489.21 ppb	11:39:08
1	Mo 202.031†	6551.0	6414.1	483.66 ug/L		483.66 ppb	11:39:33
1	Ni 231.604†	19371.5	18924.6	484.73 ug/L		484.73 ppb	11:39:13
1	P 214.914†	4426.3	4094.8	2314.4 ug/L		2314.4 ppb	11:39:33
1	Pb 220.353†	3937.7	3929.7	483.31 ug/L		483.31 ppb	11:39:33
1	S 181.975 Axial†	767.8	705.3	966.90 ug/L		966.90 ppb	11:39:33
1	Sb 206.836†	1462.9	1399.9	504.24 ug/L		504.24 ppb	11:39:33
1	Se 196.026†	727.3	738.8	501.11 ug/L		501.11 ppb	11:39:33
1	Si 251.611†	76269.0	74281.7	2423.9 ug/L		2423.9 ppb	11:39:13
1	Sn 189.927†	2719.6	2658.2	481.60 ug/L		481.60 ppb	11:39:33
1	Ti 334.940†	305510.1	301248.9	486.22 ug/L		486.22 ppb	11:39:13
1	Tl 190.801†	1561.6	1566.2	488.88 ug/L		488.88 ppb	11:39:33
1	U 409.014†	12371.9	15747.7	492.77 ug/L		492.77 ppb	11:39:13
1	V 292.402†	64708.1	65063.0	492.14 ug/L		492.14 ppb	11:39:13
1	Zn 213.857†	52448.2	50718.4	480.52 ug/L		480.52 ppb	11:39:13
1	SiO2†	77017.0	75014.4	5220.9 ug/L		5220.9 ppb	11:40:41
2	Sc Radial	4903.9	4903.9	99.6 %			11:38:16
2	Y RADIAL	5186.8	5186.8	100.0 %			11:38:16
2	Al 396.153Radial†	5658.2	5843.6	5044.1 ug/L		5044.1 ppb	11:38:16
2	Ca 317.933Radial†	3171.6	3169.0	4967.1 ug/L		4967.1 ppb	11:38:36
2	Fe 238.204 Radial†	555.9	546.7	4995.6 ug/L		4995.6 ppb	11:38:36
2	K 766.490 Radial†	30824.7	27982.4	4872.5 ug/L		4872.5 ppb	11:38:16
2	Mg 279.077 IEC†	155.5	154.9	5094.5 ug/L		5094.5 ppb	11:38:36
2	Na 589.592 Radial†	29449.9	30715.5	10010 ug/L		10010 ppb	11:38:16
2	Sr 421.552†	75461.0	75742.9	496.45 ug/L		496.45 ppb	11:38:16
2	Sc 361.383	846907.9	846907.9	102.42 %			11:39:39
2	Y 371.029	668914.4	668914.4	100.23 %			11:39:39
2	Ag 328.068†	103054.4	100319.4	487.65 ug/L		487.65 ppb	11:39:44
2	As 188.979†	1107.3	1111.8	483.57 ug/L		483.57 ppb	11:40:04
2	B 249.677†	20548.1	20657.1	489.66 ug/L		489.66 ppb	11:39:44
2	Ba 233.527†	62391.5	60925.8	486.88 ug/L		486.88 ppb	11:39:44
2	Be 313.107†	1348392.4	1320194.1	483.25 ug/L		483.25 ppb	11:39:39
2	Cd 226.502†	42060.4	41281.5	481.77 ug/L		481.77 ppb	11:39:44
2	Co 228.616†	24164.3	23676.0	486.81 ug/L		486.81 ppb	11:39:44
2	Cr 267.716†	41736.3	40682.4	484.07 ug/L		484.07 ppb	11:39:44
2	Cu 324.752†	168085.1	159387.8	489.96 ug/L		489.96 ppb	11:39:44
2	Mn 257.610†	447006.6	435961.9	488.78 ug/L		488.78 ppb	11:39:39
2	Mo 202.031†	6558.5	6391.5	481.95 ug/L		481.95 ppb	11:40:04
2	Ni 231.604†	19377.1	18841.7	482.61 ug/L		482.61 ppb	11:39:44



2	P 214.914†	4439.9	4087.8	2310.5 ug/L	2310.5 ppb	11:40:04
2	Pb 220.353†	3954.8	3928.4	483.16 ug/L	483.16 ppb	11:40:04
2	S 181.975 Axial†	762.2	696.4	954.69 ug/L	954.69 ppb	11:40:04
2	Sb 206.836†	1455.6	1386.0	499.31 ug/L	499.31 ppb	11:40:04
2	Se 196.026†	744.2	752.0	509.11 ug/L	509.11 ppb	11:40:04
2	Si 251.611†	76445.1	74105.3	2418.1 ug/L	2418.1 ppb	11:39:44
2	Sn 189.927†	2707.1	2633.6	477.12 ug/L	477.12 ppb	11:40:04
2	Ti 334.940†	306062.4	300392.8	484.82 ug/L	484.82 ppb	11:39:44
2	Tl 190.801†	1576.2	1573.3	491.07 ug/L	491.07 ppb	11:40:04
2	U 409.014†	12640.5	15953.4	499.26 ug/L	499.26 ppb	11:39:44
2	V 292.402†	64964.2	65017.6	491.82 ug/L	491.82 ppb	11:39:44
2	Zn 213.857†	52501.6	50530.9	478.76 ug/L	478.76 ppb	11:39:44
2	SiO2†	78319.7	75934.6	5285.2 ug/L	5285.2 ppb	11:40:46
3	Sc Radial	4907.7	4907.7	99.7 %		11:38:41
3	Y RADIAL	5194.6	5194.6	100.2 %		11:38:41
3	Al 396.153Radial†	5647.3	5828.2	5030.9 ug/L	5030.9 ppb	11:38:41
3	Ca 317.933Radial†	3193.4	3188.5	4997.5 ug/L	4997.5 ppb	11:39:01
3	Fe 238.204 Radial†	555.9	546.2	4990.8 ug/L	4990.8 ppb	11:39:01
3	K 766.490 Radial†	30772.1	27905.3	4859.1 ug/L	4859.1 ppb	11:38:41
3	Mg 279.077 IEC†	156.3	155.6	5119.4 ug/L	5119.4 ppb	11:39:01
3	Na 589.592 Radial†	29367.7	30609.7	9975.6 ug/L	9975.6 ppb	11:38:41
3	Sr 421.552†	75408.0	75630.1	495.71 ug/L	495.71 ppb	11:38:41
3	Sc 361.383	850006.3	850006.3	102.80 %		11:40:10
3	Y 371.029	671029.0	671029.0	100.54 %		11:40:10
3	Ag 328.068†	103921.8	100796.4	489.95 ug/L	489.95 ppb	11:40:15
3	As 188.979†	1105.6	1106.2	481.19 ug/L	481.19 ppb	11:40:35
3	B 249.677†	20786.8	20816.1	493.44 ug/L	493.44 ppb	11:40:15
3	Ba 233.527†	62840.1	61140.1	488.59 ug/L	488.59 ppb	11:40:15
3	Be 313.107†	1353768.2	1320624.8	483.42 ug/L	483.42 ppb	11:40:10
3	Cd 226.502†	42406.6	41468.5	483.95 ug/L	483.95 ppb	11:40:15
3	Co 228.616†	24371.6	23791.7	489.18 ug/L	489.18 ppb	11:40:15
3	Cr 267.716†	42048.5	40837.5	485.91 ug/L	485.91 ppb	11:40:15
3	Cu 324.752†	169515.6	160181.2	492.39 ug/L	492.39 ppb	11:40:15
3	Mn 257.610†	449865.3	437152.0	490.11 ug/L	490.11 ppb	11:40:10
3	Mo 202.031†	6549.7	6359.6	479.54 ug/L	479.54 ppb	11:40:35
3	Ni 231.604†	19520.4	18912.1	484.41 ug/L	484.41 ppb	11:40:15
3	P 214.914†	4405.8	4038.8	2281.2 ug/L	2281.2 ppb	11:40:35
3	Pb 220.353†	3936.5	3896.5	479.24 ug/L	479.24 ppb	11:40:35
3	S 181.975 Axial†	753.4	685.2	939.24 ug/L	939.24 ppb	11:40:35
3	Sb 206.836†	1473.5	1398.3	503.50 ug/L	503.50 ppb	11:40:35
3	Se 196.026†	734.7	740.1	501.30 ug/L	501.30 ppb	11:40:35
3	Si 251.611†	77281.1	74646.5	2435.9 ug/L	2435.9 ppb	11:40:15
3	Sn 189.927†	2709.9	2626.6	475.86 ug/L	475.86 ppb	11:40:35
3	Ti 334.940†	309115.5	302273.6	487.85 ug/L	487.85 ppb	11:40:15
3	Tl 190.801†	1552.1	1544.2	482.07 ug/L	482.07 ppb	11:40:35
3	U 409.014†	13009.9	16267.8	509.13 ug/L	509.13 ppb	11:40:15
3	V 292.402†	65342.3	65154.1	492.82 ug/L	492.82 ppb	11:40:15
3	Zn 213.857†	52974.1	50803.7	481.36 ug/L	481.36 ppb	11:40:15
3	SiO2†	76225.8	73618.9	5123.7 ug/L	5123.7 ppb	11:40:51

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	846626.3	102.39 %	0.427			0.42%
Sc Radial	4854.1	98.6 %	1.82			1.84%
Y 371.029	668699.5	100.19 %	0.366			0.37%
Y RADIAL	5146.8	99.24 %	1.469			1.48%
Ag 328.068†	100591.7	488.99 ug/L	1.193	488.99 ppb	1.193	0.24%
QC value within limits for Ag 328.068 Recovery = 97.80%						
Al 396.153Radial†	5846.4	5046.5 ug/L	16.92	5046.5 ppb	16.92	0.34%
QC value within limits for Al 396.153Radial Recovery = 100.93%						
As 188.979†	1112.5	483.92 ug/L	2.918	483.92 ppb	2.918	0.60%
QC value within limits for As 188.979 Recovery = 96.78%						
B 249.677†	20664.5	489.82 ug/L	3.537	489.82 ppb	3.537	0.72%
QC value within limits for B 249.677 Recovery = 97.96%						
Ba 233.527†	61020.1	487.64 ug/L	0.873	487.64 ppb	0.873	0.18%
QC value within limits for Ba 233.527 Recovery = 97.53%						
Be 313.107†	1321312.6	483.67 ug/L	0.577	483.67 ppb	0.577	0.12%
QC value within limits for Be 313.107 Recovery = 96.73%						
Ca 317.933Radial†	3218.1	5044.0 ug/L	107.92	5044.0 ppb	107.92	2.14%

QC value within limits for Ca 317.933 Radial Recovery = 100.88%							
Cd 226.502†	41385.1	482.97 ug/L	1.110	482.97 ppb	1.110	0.23%	
QC value within limits for Cd 226.502 Recovery = 96.59%							
Co 228.616†	23737.2	488.07 ug/L	1.190	488.07 ppb	1.190	0.24%	
QC value within limits for Co 228.616 Recovery = 97.61%							
Cr 267.716†	40795.9	485.42 ug/L	1.185	485.42 ppb	1.185	0.24%	
QC value within limits for Cr 267.716 Recovery = 97.08%							
Cu 324.752†	159697.6	490.91 ug/L	1.298	490.91 ppb	1.298	0.26%	
QC value within limits for Cu 324.752 Recovery = 98.18%							
Fe 238.204 Radial†	553.1	5053.9 ug/L	105.22	5053.9 ppb	105.22	2.08%	
QC value within limits for Fe 238.204 Radial Recovery = 101.08%							
K 766.490 Radial†	28025.9	4880.1 ug/L	25.62	4880.1 ppb	25.62	0.53%	
QC value within limits for K 766.490 Radial Recovery = 97.60%							
Mg 279.077 IEC†	156.2	5137.3 ug/L	53.96	5137.3 ppb	53.96	1.05%	
QC value within limits for Mg 279.077 IEC Recovery = 102.75%							
Mn 257.610†	436484.1	489.36 ug/L	0.679	489.36 ppb	0.679	0.14%	
QC value within limits for Mn 257.610 Recovery = 97.87%							
Mo 202.031†	6388.4	481.72 ug/L	2.069	481.72 ppb	2.069	0.43%	
QC value within limits for Mo 202.031 Recovery = 96.34%							
Na 589.592 Radial†	30756.9	10024 ug/L	55.9	10024 ppb	55.9	0.56%	
QC value within limits for Na 589.592 Radial Recovery = 100.24%							
Ni 231.604†	18892.8	483.91 ug/L	1.145	483.91 ppb	1.145	0.24%	
QC value within limits for Ni 231.604 Recovery = 96.78%							
P 214.914†	4073.8	2302.0 ug/L	18.16	2302.0 ppb	18.16	0.79%	
QC value within limits for P 214.914 Recovery = 92.08%							
Pb 220.353†	3918.2	481.90 ug/L	2.306	481.90 ppb	2.306	0.48%	
QC value within limits for Pb 220.353 Recovery = 96.38%							
S 181.975 Axial†	695.6	953.61 ug/L	13.861	953.61 ppb	13.861	1.45%	
QC value within limits for S 181.975 Axial Recovery = 95.36%							
Sb 206.836†	1394.7	502.35 ug/L	2.657	502.35 ppb	2.657	0.53%	
QC value within limits for Sb 206.836 Recovery = 100.47%							
Se 196.026†	743.6	503.84 ug/L	4.567	503.84 ppb	4.567	0.91%	
QC value within limits for Se 196.026 Recovery = 100.77%							
Si 251.611†	74344.5	2426.0 ug/L	9.05	2426.0 ppb	9.05	0.37%	
QC value within limits for Si 251.611 Recovery = 97.04%							
Sn 189.927†	2639.5	478.19 ug/L	3.017	478.19 ppb	3.017	0.63%	
QC value within limits for Sn 189.927 Recovery = 95.64%							
Sr 421.552†	75866.0	497.26 ug/L	2.070	497.26 ppb	2.070	0.42%	
QC value within limits for Sr 421.552 Recovery = 99.45%							
Ti 334.940†	301305.1	486.30 ug/L	1.518	486.30 ppb	1.518	0.31%	
QC value within limits for Ti 334.940 Recovery = 97.26%							
Tl 190.801†	1561.2	487.34 ug/L	4.695	487.34 ppb	4.695	0.96%	
QC value within limits for Tl 190.801 Recovery = 97.47%							
U 409.014†	15989.6	500.39 ug/L	8.234	500.39 ppb	8.234	1.65%	
QC value within limits for U 409.014 Recovery = 100.08%							
V 292.402†	65078.2	492.26 ug/L	0.511	492.26 ppb	0.511	0.10%	
QC value within limits for V 292.402 Recovery = 98.45%							
Zn 213.857†	50684.3	480.21 ug/L	1.324	480.21 ppb	1.324	0.28%	
QC value within limits for Zn 213.857 Recovery = 96.04%							
SiO2†	74855.9	5209.9 ug/L	81.32	5209.9 ppb	81.32	1.56%	
QC value within limits for SiO2 Recovery = 97.43%							
All analyte(s) passed QC.							

Sequence No.: 15  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/12/2010 11:43:02  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4999.5	4999.5	102 %		11:44:55
1	Y RADIAL	5303.0	5303.0	102.2 %		11:44:55
1	Al 396.153Radial†	-146.7	18.8	16.260 ug/L	16.260 ppb	11:44:55
1	Ca 317.933Radial†	20.3	5.0	7.8734 ug/L	7.8734 ppb	11:45:15
1	Fe 238.204 Radial†	9.0	-2.5	-22.942 ug/L	-22.942 ppb	11:45:15
1	K 766.490 Radial†	2955.2	-52.9	-9.2527 ug/L	-9.2527 ppb	11:44:55
1	Mg 279.077 IEC†	0.8	-0.5	-15.140 ug/L	-15.140 ppb	11:45:15
1	Na 589.592 Radial†	-1003.7	161.8	52.736 ug/L	52.736 ppb	11:44:55
1	Sr 421.552†	23.1	9.1	0.0593 ug/L	0.0593 ppb	11:44:55
1	Sc 361.383	825460.6	825460.6	99.829 %		11:46:12
1	Y 371.029	660528.7	660528.7	98.970 %		11:46:12
1	Ag 328.068†	329.9	33.3	0.1402 ug/L	0.1402 ppb	11:46:12
1	As 188.979†	-21.3	9.3	4.0032 ug/L	4.0032 ppb	11:46:32
1	B 249.677†	-318.9	275.6	6.5652 ug/L	6.5652 ppb	11:46:32
1	Ba 233.527†	0.8	11.1	0.0875 ug/L	0.0875 ppb	11:46:32
1	Be 313.107†	-3805.4	-111.5	-0.0403 ug/L	-0.0403 ppb	11:46:12
1	Cd 226.502†	-206.6	9.1	0.1121 ug/L	0.1121 ppb	11:46:32
1	Co 228.616†	-80.1	3.1	0.0659 ug/L	0.0659 ppb	11:46:32
1	Cr 267.716†	84.4	17.9	0.2063 ug/L	0.2063 ppb	11:46:32
1	Cu 324.752†	4884.7	172.1	0.5193 ug/L	0.5193 ppb	11:46:12
1	Mn 257.610†	463.9	-5.2	-0.0075 ug/L	-0.0075 ppb	11:46:32
1	Mo 202.031†	22.2	10.4	0.7833 ug/L	0.7833 ppb	11:46:32
1	Ni 231.604†	93.6	16.7	0.4283 ug/L	0.4283 ppb	11:46:32
1	P 214.914†	245.0	-1.6	-0.9906 ug/L	-0.9906 ppb	11:46:32
1	Pb 220.353†	-70.1	-3.0	-0.3648 ug/L	-0.3648 ppb	11:46:32
1	S 181.975 Axial†	45.3	-2.4	-3.3423 ug/L	-3.3423 ppb	11:46:32
1	Sb 206.836†	43.4	8.4	2.9663 ug/L	2.9663 ppb	11:46:32
1	Se 196.026†	-16.8	8.5	5.5086 ug/L	5.5086 ppb	11:46:32
1	Si 251.611†	543.8	13.4	0.4276 ug/L	0.4276 ppb	11:46:32
1	Sn 189.927†	21.5	12.1	2.1809 ug/L	2.1809 ppb	11:46:32
1	Ti 334.940†	-1442.9	125.6	0.1980 ug/L	0.1980 ppb	11:46:12
1	Tl 190.801†	-29.5	4.8	1.4802 ug/L	1.4802 ppb	11:46:32
1	U 409.014†	-3106.7	499.9	15.700 ug/L	15.700 ppb	11:46:12
1	V 292.402†	-1587.9	-0.4	0.0408 ug/L	0.0408 ppb	11:46:12
1	Zn 213.857†	732.9	5.5	0.0530 ug/L	0.0530 ppb	11:46:32
1	SiO2†	548.4	17.0	1.1625 ug/L	1.1625 ppb	11:47:28
2	Sc Radial	4909.8	4909.8	99.7 %		11:45:20
2	Y RADIAL	5224.2	5224.2	100.7 %		11:45:20
2	Al 396.153Radial†	-180.3	-17.6	-15.249 ug/L	-15.249 ppb	11:45:20
2	Ca 317.933Radial†	21.8	6.9	10.741 ug/L	10.741 ppb	11:45:40
2	Fe 238.204 Radial†	11.7	0.4	3.2292 ug/L	3.2292 ppb	11:45:40
2	K 766.490 Radial†	2990.6	35.7	6.1807 ug/L	6.1807 ppb	11:45:20
2	Mg 279.077 IEC†	2.4	1.2	37.998 ug/L	37.998 ppb	11:45:40
2	Na 589.592 Radial†	-878.2	269.6	87.872 ug/L	87.872 ppb	11:45:20
2	Sr 421.552†	10.0	-3.6	-0.0240 ug/L	-0.0240 ppb	11:45:20
2	Sc 361.383	828370.5	828370.5	100.18 %		11:46:37
2	Y 371.029	662226.2	662226.2	99.224 %		11:46:37
2	Ag 328.068†	276.1	-21.5	-0.1071 ug/L	-0.1071 ppb	11:46:37
2	As 188.979†	-18.6	12.1	5.2149 ug/L	5.2149 ppb	11:46:57
2	B 249.677†	-327.5	268.1	6.3833 ug/L	6.3833 ppb	11:46:57
2	Ba 233.527†	-9.3	1.0	0.0094 ug/L	0.0094 ppb	11:46:57
2	Be 313.107†	-3863.0	-155.7	-0.0565 ug/L	-0.0565 ppb	11:46:37
2	Cd 226.502†	-206.2	10.3	0.1215 ug/L	0.1215 ppb	11:46:57
2	Co 228.616†	-75.5	8.0	0.1646 ug/L	0.1646 ppb	11:46:57
2	Cr 267.716†	87.8	21.0	0.2471 ug/L	0.2471 ppb	11:46:57
2	Cu 324.752†	4906.8	176.9	0.5396 ug/L	0.5396 ppb	11:46:37
2	Mn 257.610†	504.5	33.7	0.0366 ug/L	0.0366 ppb	11:46:57
2	Mo 202.031†	15.1	3.3	0.2458 ug/L	0.2458 ppb	11:46:57
2	Ni 231.604†	91.5	14.3	0.3671 ug/L	0.3671 ppb	11:46:57

2	P 214.914†	250.3	2.8	1.5208 ug/L	1.5208 ppb	11:46:57
2	Pb 220.353†	-68.9	-1.7	-0.2073 ug/L	-0.2073 ppb	11:46:57
2	S 181.975 Axial†	42.8	-5.1	-6.9740 ug/L	-6.9740 ppb	11:46:57
2	Sb 206.836†	55.0	19.8	6.9047 ug/L	6.9047 ppb	11:46:57
2	Se 196.026†	-14.7	10.7	7.0079 ug/L	7.0079 ppb	11:46:57
2	Si 251.611†	523.0	-9.3	-0.3066 ug/L	-0.3066 ppb	11:46:57
2	Sn 189.927†	13.8	4.3	0.7714 ug/L	0.7714 ppb	11:46:57
2	Ti 334.940†	-1470.5	103.1	0.1611 ug/L	0.1611 ppb	11:46:37
2	Tl 190.801†	-31.2	3.2	0.9849 ug/L	0.9849 ppb	11:46:57
2	U 409.014†	-3359.3	258.7	8.1211 ug/L	8.1211 ppb	11:46:37
2	V 292.402†	-1508.9	84.0	0.6464 ug/L	0.6464 ppb	11:46:37
2	Zn 213.857†	750.0	20.0	0.1877 ug/L	0.1877 ppb	11:46:57
2	SiO2†	536.7	3.4	0.2303 ug/L	0.2303 ppb	11:47:33
3	Sc Radial	4937.3	4937.3	100 %		11:45:45
3	Y RADIAL	5242.9	5242.9	101.1 %		11:45:45
3	Al 396.153Radial†	-149.5	14.2	12.233 ug/L	12.233 ppb	11:45:45
3	Ca 317.933Radial†	19.3	4.2	6.6540 ug/L	6.6540 ppb	11:46:05
3	Fe 238.204 Radial†	7.7	-3.7	-33.987 ug/L	-33.987 ppb	11:46:05
3	K 766.490 Radial†	2967.9	-3.7	-0.6625 ug/L	-0.6625 ppb	11:45:45
3	Mg 279.077 IEC†	3.9	2.7	89.627 ug/L	89.627 ppb	11:46:05
3	Na 589.592 Radial†	-985.2	167.9	54.706 ug/L	54.706 ppb	11:45:45
3	Sr 421.552†	51.5	37.7	0.2473 ug/L	0.2473 ppb	11:45:45
3	Sc 361.383	825041.7	825041.7	99.779 %		11:47:02
3	Y 371.029	659068.0	659068.0	98.751 %		11:47:02
3	Ag 328.068†	306.5	10.1	0.0280 ug/L	0.0280 ppb	11:47:02
3	As 188.979†	-34.3	-3.7	-1.5963 ug/L	-1.5963 ppb	11:47:23
3	B 249.677†	-356.7	237.5	5.6596 ug/L	5.6596 ppb	11:47:23
3	Ba 233.527†	3.2	13.4	0.1045 ug/L	0.1045 ppb	11:47:23
3	Be 313.107†	-3840.8	-149.0	-0.0541 ug/L	-0.0541 ppb	11:47:02
3	Cd 226.502†	-203.3	12.3	0.1489 ug/L	0.1489 ppb	11:47:23
3	Co 228.616†	-74.4	8.8	0.1842 ug/L	0.1842 ppb	11:47:23
3	Cr 267.716†	58.4	-8.1	-0.1010 ug/L	-0.1010 ppb	11:47:23
3	Cu 324.752†	4861.3	151.1	0.4586 ug/L	0.4586 ppb	11:47:02
3	Mn 257.610†	478.8	10.0	0.0042 ug/L	0.0042 ppb	11:47:23
3	Mo 202.031†	26.4	14.6	1.0942 ug/L	1.0942 ppb	11:47:23
3	Ni 231.604†	85.4	8.6	0.2204 ug/L	0.2204 ppb	11:47:23
3	P 214.914†	231.2	-15.3	-9.0768 ug/L	-9.0768 ppb	11:47:23
3	Pb 220.353†	-65.4	1.6	0.2050 ug/L	0.2050 ppb	11:47:23
3	S 181.975 Axial†	50.1	2.4	3.3457 ug/L	3.3457 ppb	11:47:23
3	Sb 206.836†	26.7	-8.4	-2.8745 ug/L	-2.8745 ppb	11:47:23
3	Se 196.026†	-21.8	3.6	2.2144 ug/L	2.2144 ppb	11:47:23
3	Si 251.611†	564.2	34.1	1.1019 ug/L	1.1019 ppb	11:47:23
3	Sn 189.927†	16.2	6.8	1.2268 ug/L	1.2268 ppb	11:47:23
3	Ti 334.940†	-1492.8	74.8	0.1111 ug/L	0.1111 ppb	11:47:02
3	Tl 190.801†	-33.8	0.5	0.1487 ug/L	0.1487 ppb	11:47:23
3	U 409.014†	-3366.4	238.1	7.4793 ug/L	7.4793 ppb	11:47:02
3	V 292.402†	-1684.9	-98.5	-0.6988 ug/L	-0.6988 ppb	11:47:02
3	Zn 213.857†	727.9	0.9	0.0113 ug/L	0.0113 ppb	11:47:23
3	SiO2†	547.3	16.2	1.0975 ug/L	1.0975 ppb	11:47:38

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	826291.0	99.930 %		0.2193			0.22%
Sc Radial	4948.9	101 %		0.9			0.93%
Y 371.029	660607.6	98.981 %		0.2368			0.24%
Y RADIAL	5256.7	101.4 %		0.79			0.78%
Ag 328.068†	7.3	0.0204 ug/L		0.12379	0.0204 ppb	0.12379	607.44%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	5.1	4.4147 ug/L		17.14783	4.4147 ppb	17.14783	388.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	5.9	2.5406 ug/L		3.63353	2.5406 ppb	3.63353	143.02%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	260.4	6.2027 ug/L		0.47910	6.2027 ppb	0.47910	7.72%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	8.5	0.0672 ug/L		0.05072	0.0672 ppb	0.05072	75.53%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-138.7	-0.0503 ug/L		0.00875	-0.0503 ppb	0.00875	17.40%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	5.4	8.4228 ug/L		2.09807	8.4228 ppb	2.09807	24.91%

Cd	226.502†	10.6	0.1275 ug/L	0.01910	0.1275 ppb	0.01910	14.98%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	6.6	0.1382 ug/L	0.06342	0.1382 ppb	0.06342	45.88%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	10.3	0.1175 ug/L	0.19027	0.1175 ppb	0.19027	161.95%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	166.7	0.5058 ug/L	0.04215	0.5058 ppb	0.04215	8.33%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-2.0	-17.900 ug/L	19.1136	-17.900 ppb	19.1136	106.78%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-7.0	-1.2448 ug/L	7.73314	-1.2448 ppb	7.73314	621.22%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	1.1	37.495 ug/L	52.3851	37.495 ppb	52.3851	139.71%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	12.8	0.0111 ug/L	0.02282	0.0111 ppb	0.02282	206.07%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	9.4	0.7078 ug/L	0.42922	0.7078 ppb	0.42922	60.65%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	199.8	65.105 ug/L	19.7417	65.105 ppb	19.7417	30.32%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	13.2	0.3386 ug/L	0.10684	0.3386 ppb	0.10684	31.55%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-4.7	-2.8488 ug/L	5.53778	-2.8488 ppb	5.53778	194.39%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-1.0	-0.1224 ug/L	0.29425	-0.1224 ppb	0.29425	240.40%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-1.7	-2.3235 ug/L	5.23476	-2.3235 ppb	5.23476	225.29%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	6.6	2.3322 ug/L	4.92031	2.3322 ppb	4.92031	210.98%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	7.6	4.9103 ug/L	2.45211	4.9103 ppb	2.45211	49.94%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	12.7	0.4077 ug/L	0.70445	0.4077 ppb	0.70445	172.80%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	7.7	1.3930 ug/L	0.71932	1.3930 ppb	0.71932	51.64%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	14.4	0.0942 ug/L	0.13895	0.0942 ppb	0.13895	147.53%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	101.2	0.1568 ug/L	0.04360	0.1568 ppb	0.04360	27.81%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	2.8	0.8713 ug/L	0.67300	0.8713 ppb	0.67300	77.24%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	332.2	10.433 ug/L	4.5720	10.433 ppb	4.5720	43.82%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-4.9	-0.0038 ug/L	0.67370	-0.0038 ppb	0.67370	>999.9%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	8.8	0.0840 ug/L	0.09220	0.0840 ppb	0.09220	109.73%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		12.2	0.8301 ug/L	0.52045	0.8301 ppb	0.52045	62.70%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 23

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/12/2010 12:38:04

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4876.0	4876.0	99.0 %		12:39:56
1	Y RADIAL	5173.8	5173.8	99.76 %		12:39:56
1	Al 396.153Radial†	5614.8	5832.3	5033.9 ug/L	5033.9 ppb	12:39:56
1	Ca 317.933Radial†	3216.1	3232.2	5066.1 ug/L	5066.1 ppb	12:40:16
1	Fe 238.204 Radial†	561.6	555.6	5077.0 ug/L	5077.0 ppb	12:40:16
1	K 766.490 Radial†	30846.2	28181.5	4907.1 ug/L	4907.1 ppb	12:39:56
1	Mg 279.077 IEC†	153.7	154.0	5065.5 ug/L	5065.5 ppb	12:40:16
1	Na 589.592 Radial†	30040.5	31481.2	10260 ug/L	10260 ppb	12:39:56
1	Sr 421.552†	76221.7	76945.0	504.33 ug/L	504.33 ppb	12:39:56
1	Sc 361.383	843061.4	843061.4	101.96 %		12:41:14
1	Y 371.029	665577.6	665577.6	99.726 %		12:41:14
1	Ag 328.068†	104699.6	102392.0	497.71 ug/L	497.71 ppb	12:41:19
1	As 188.979†	1116.2	1125.5	489.60 ug/L	489.60 ppb	12:41:39
1	B 249.677†	20641.5	20840.2	493.98 ug/L	493.98 ppb	12:41:19
1	Ba 233.527†	63228.5	62024.7	495.66 ug/L	495.66 ppb	12:41:19
1	Be 313.107†	1347615.5	1325438.7	485.21 ug/L	485.21 ppb	12:41:14
1	Cd 226.502†	42573.9	41972.5	489.83 ug/L	489.83 ppb	12:41:19
1	Co 228.616†	24530.1	24142.4	496.39 ug/L	496.39 ppb	12:41:19
1	Cr 267.716†	42265.4	41387.1	492.46 ug/L	492.46 ppb	12:41:19
1	Cu 324.752†	170954.3	162950.7	500.91 ug/L	500.91 ppb	12:41:19
1	Mn 257.610†	447344.0	438284.2	491.39 ug/L	491.39 ppb	12:41:14
1	Mo 202.031†	6637.4	6498.1	489.98 ug/L	489.98 ppb	12:41:39
1	Ni 231.604†	19676.5	19221.6	492.34 ug/L	492.34 ppb	12:41:19
1	P 214.914†	4488.4	4155.2	2348.0 ug/L	2348.0 ppb	12:41:39
1	Pb 220.353†	3983.7	3974.4	488.80 ug/L	488.80 ppb	12:41:39
1	S 181.975 Axial†	787.2	724.3	992.99 ug/L	992.99 ppb	12:41:39
1	Sb 206.836†	1489.6	1425.8	513.40 ug/L	513.40 ppb	12:41:39
1	Se 196.026†	741.2	752.3	509.63 ug/L	509.63 ppb	12:41:39
1	Si 251.611†	78020.9	75991.4	2479.7 ug/L	2479.7 ppb	12:41:19
1	Sn 189.927†	2727.9	2666.1	483.01 ug/L	483.01 ppb	12:41:39
1	Ti 334.940†	314915.3	310439.1	501.05 ug/L	501.05 ppb	12:41:14
1	Tl 190.801†	1584.6	1588.5	495.89 ug/L	495.89 ppb	12:41:39
1	U 409.014†	12992.4	16354.9	511.84 ug/L	511.84 ppb	12:41:19
1	V 292.402†	65797.2	66123.9	500.18 ug/L	500.18 ppb	12:41:19
1	Zn 213.857†	53390.8	51637.0	489.25 ug/L	489.25 ppb	12:41:19
1	SiO2†	77489.5	75469.2	5252.5 ug/L	5252.5 ppb	12:42:47
2	Sc Radial	4911.3	4911.3	99.8 %		12:40:21
2	Y RADIAL	5198.9	5198.9	100.2 %		12:40:21
2	Al 396.153Radial†	5686.7	5863.6	5061.3 ug/L	5061.3 ppb	12:40:21
2	Ca 317.933Radial†	3220.2	3212.9	5035.8 ug/L	5035.8 ppb	12:40:41
2	Fe 238.204 Radial†	561.5	551.4	5038.9 ug/L	5038.9 ppb	12:40:41
2	K 766.490 Radial†	30834.1	27945.0	4865.9 ug/L	4865.9 ppb	12:40:21
2	Mg 279.077 IEC†	158.9	158.1	5201.6 ug/L	5201.6 ppb	12:40:41
2	Na 589.592 Radial†	30103.6	31326.0	10209 ug/L	10209 ppb	12:40:21
2	Sr 421.552†	76839.0	77009.5	504.75 ug/L	504.75 ppb	12:40:21
2	Sc 361.383	850286.2	850286.2	102.83 %		12:41:45
2	Y 371.029	670475.9	670475.9	100.46 %		12:41:45
2	Ag 328.068†	105114.7	101923.2	495.42 ug/L	495.42 ppb	12:41:50
2	As 188.979†	1116.0	1115.9	485.51 ug/L	485.51 ppb	12:42:10
2	B 249.677†	20812.7	20834.6	493.86 ug/L	493.86 ppb	12:41:50
2	Ba 233.527†	63370.7	61636.0	492.56 ug/L	492.56 ppb	12:41:50
2	Be 313.107†	1357957.2	1324265.0	484.78 ug/L	484.78 ppb	12:41:45
2	Cd 226.502†	42678.1	41719.0	486.88 ug/L	486.88 ppb	12:41:50
2	Co 228.616†	24575.5	23982.1	493.08 ug/L	493.08 ppb	12:41:50
2	Cr 267.716†	42370.3	41136.9	489.48 ug/L	489.48 ppb	12:41:50
2	Cu 324.752†	171718.3	162269.0	498.81 ug/L	498.81 ppb	12:41:50
2	Mn 257.610†	450565.3	437688.7	490.71 ug/L	490.71 ppb	12:41:45
2	Mo 202.031†	6612.9	6419.0	484.02 ug/L	484.02 ppb	12:42:10
2	Ni 231.604†	19701.0	19081.5	488.75 ug/L	488.75 ppb	12:41:50

**Uploaded Data CCV 12-FEB-2010 12:38:00**

## Run Level

Attribute	Value	Units
Dilution	1	num
Spike Refmat Id	1268948	num
Serial Number	WI100212-43	text

## Parmname Level

Details	Parmname	Status	Initial Result ug/L	Intensity none	Nominal ug/L	Recovery percent
<a href="#">View</a>	1,1-Dichloroethane	LOAD				
<a href="#">View</a>	1,2-Dichloropropane	LOAD				
<a href="#">View</a>	3,3'-Dichlorobenzidine	LOAD				
<a href="#">View</a>	4,4'-DDT	LOAD				
<a href="#">View</a>	4-Chloro-3-methylphenol	LOAD				
<a href="#">View</a>	Aluminum	LOAD	5050.8	5851.55802	5000	101.016
<a href="#">View</a>	Antimony	LOAD	510.94	1419.278251	500	102.188
<a href="#">View</a>	Arsenic	LOAD	486.63	1118.549888	500	97.326
<a href="#">View</a>	Barium	LOAD	491.15	61459.90842	500	98.23
<a href="#">View</a>	Beryllium	LOAD	485.23	1325495.333	500	97.046
<a href="#">View</a>	Bismuth	LOAD				
<a href="#">View</a>	Boron	LOAD	491.11	20718.62124	500	98.222
<a href="#">View</a>	Cadmium	LOAD	485.38	41590.89153	500	97.076
<a href="#">View</a>	Calcium	LOAD	5002.4	3191.561502	5000	100.048
<a href="#">View</a>	Cerium	LOAD				
<a href="#">View</a>	Cesium	LOAD				
<a href="#">View</a>	Chromium	LOAD	488.1	41021.45302	500	97.62
<a href="#">View</a>	Chrysene	LOAD				

<a href="#">View</a>	Cobalt	LOAD	491.62	23911.07612	500	98.324
<a href="#">View</a>	Copper	LOAD	496.94	161659.8254	500	99.388
<a href="#">View</a>	Europium	LOAD				
<a href="#">View</a>	Famphur	LOAD				
<a href="#">View</a>	Fluoranthene	LOAD				
<a href="#">View</a>	Gadolinium	LOAD				
<a href="#">View</a>	Germanium	LOAD				
<a href="#">View</a>	Gold	LOAD				
<a href="#">View</a>	Holmium	LOAD				
<a href="#">View</a>	Indium	LOAD				
<a href="#">View</a>	Iron	LOAD	5009.3	548.187294	5000	100.186
<a href="#">View</a>	Krypton	LOAD				
<a href="#">View</a>	Lanthanum	LOAD				
<a href="#">View</a>	Lead	LOAD	484.56	3939.787398	500	96.912
<a href="#">View</a>	Lithium	LOAD				
<a href="#">View</a>	Lutetium	LOAD				
<a href="#">View</a>	Magnesium	LOAD	5081.4	154.472073	5000	101.628
<a href="#">View</a>	Manganese	LOAD	490.7	437673.5191	500	98.14
<a href="#">View</a>	Mercury	LOAD				
<a href="#">View</a>	Methapyrilene	LOAD				
<a href="#">View</a>	Molybdenum	LOAD	485.61	6440.13694	500	97.122
<a href="#">View</a>	Neodymium	LOAD				
<a href="#">View</a>	Nickel	LOAD	487.33	19026.04146	500	97.466
<a href="#">View</a>	Niobium	LOAD				
<a href="#">View</a>	Palladium	LOAD				
<a href="#">View</a>	Pentachlorobenzene	LOAD				
<a href="#">View</a>	Phosphorous	LOAD	2318.5	4103.659163	2500	92.74
<a href="#">View</a>	Platinum	LOAD				



<a href="#">View</a>	Potassium	LOAD	4871.7	27978.10496	5000	97.434
<a href="#">View</a>	Praseodymium	LOAD				
<a href="#">View</a>	Ruthenium	LOAD				
<a href="#">View</a>	Samarium	LOAD				
<a href="#">View</a>	Scandium	LOAD				
<a href="#">View</a>	Selenium	LOAD	508.22	750.525344	500	101.644
<a href="#">View</a>	Silica	LOAD	5185.4	74505.71396	5350	96.923364
<a href="#">View</a>	Silicon	LOAD	2454.8	75226.0418	2500	98.192
<a href="#">View</a>	Silver	LOAD	493.47	101520.8575	500	98.694
<a href="#">View</a>	Sodium	LOAD	10188	31262.26694	10000	101.88
<a href="#">View</a>	Strontium	LOAD	503.35	76795.05705	500	100.67
<a href="#">View</a>	Sulfur	LOAD	971.05	708.334767	1000	97.105
<a href="#">View</a>	Terbium	LOAD				
<a href="#">View</a>	Thallium	LOAD	491.64	1574.724261	500	98.328
<a href="#">View</a>	Thorium	LOAD				
<a href="#">View</a>	Tin	LOAD	478.69	2642.294979	500	95.738
<a href="#">View</a>	Titanium	LOAD	501.42	310672.7306	500	100.284
<a href="#">View</a>	Total Uranium	LOAD				
<a href="#">View</a>	Tungsten	LOAD				
<a href="#">View</a>	Uranium	LOAD	507.7	16222.52493	500	101.54
<a href="#">View</a>	Uranium-233	LOAD				
<a href="#">View</a>	Uranium-234	LOAD				
<a href="#">View</a>	Uranium-235	LOAD				
<a href="#">View</a>	Uranium-236	LOAD				
<a href="#">View</a>	Uranium-238	LOAD				
<a href="#">View</a>	Vanadium	LOAD	496.19	65596.84692	500	99.238
<a href="#">View</a>	Yttrium	LOAD				
<a href="#">View</a>	Zinc	LOAD	484.08	51091.67043	500	96.816

QC value within limits for Ca 317.933 Radial Recovery = 100.05%  
 Cd 226.502† 41590.9 485.38 ug/L 5.356 485.38 ppb 5.356 1.10%  
 QC value within limits for Cd 226.502 Recovery = 97.08%  
 Co 228.616† 23911.1 491.62 ug/L 5.637 491.62 ppb 5.637 1.15%  
 QC value within limits for Co 228.616 Recovery = 98.32%  
 Cr 267.716† 41021.5 488.10 ug/L 5.177 488.10 ppb 5.177 1.06%  
 QC value within limits for Cr 267.716 Recovery = 97.62%  
 Cu 324.752† 161659.8 496.94 ug/L 5.168 496.94 ppb 5.168 1.04%  
 QC value within limits for Cu 324.752 Recovery = 99.39%  
 Fe 238.204 Radial† 548.2 5009.3 ug/L 86.40 5009.3 ppb 86.40 1.72%  
 QC value within limits for Fe 238.204 Radial Recovery = 100.19%  
 K 766.490 Radial† 27978.1 4871.7 ug/L 32.90 4871.7 ppb 32.90 0.68%  
 QC value within limits for K 766.490 Radial Recovery = 97.43%  
 Mg 279.077 IEC† 154.5 5081.4 ug/L 113.11 5081.4 ppb 113.11 2.23%  
 QC value within limits for Mg 279.077 IEC Recovery = 101.63%  
 Mn 257.610† 437673.5 490.70 ug/L 0.699 490.70 ppb 0.699 0.14%  
 QC value within limits for Mn 257.610 Recovery = 98.14%  
 Mo 202.031† 6440.1 485.61 ug/L 3.835 485.61 ppb 3.835 0.79%  
 QC value within limits for Mo 202.031 Recovery = 97.12%  
 Na 589.592 Radial† 31262.3 10188 ug/L 83.7 10188 ppb 83.7 0.82%  
 QC value within limits for Na 589.592 Radial Recovery = 101.88%  
 Ni 231.604† 19026.0 487.33 ug/L 5.850 487.33 ppb 5.850 1.20%  
 QC value within limits for Ni 231.604 Recovery = 97.47%  
 P 214.914† 4103.7 2318.5 ug/L 27.45 2318.5 ppb 27.45 1.18%  
 QC value within limits for P 214.914 Recovery = 92.74%  
 Pb 220.353† 3939.8 484.56 ug/L 3.689 484.56 ppb 3.689 0.76%  
 QC value within limits for Pb 220.353 Recovery = 96.91%  
 S 181.975 Axial† 708.3 971.05 ug/L 20.436 971.05 ppb 20.436 2.10%  
 QC value within limits for S 181.975 Axial Recovery = 97.10%  
 Sb 206.836† 1419.3 510.94 ug/L 3.026 510.94 ppb 3.026 0.59%  
 QC value within limits for Sb 206.836 Recovery = 102.19%  
 Se 196.026† 750.5 508.22 ug/L 1.393 508.22 ppb 1.393 0.27%  
 QC value within limits for Se 196.026 Recovery = 101.64%  
 Si 251.611† 75226.0 2454.8 ug/L 28.97 2454.8 ppb 28.97 1.18%  
 QC value within limits for Si 251.611 Recovery = 98.19%  
 Sn 189.927† 2642.3 478.69 ug/L 3.755 478.69 ppb 3.755 0.78%  
 QC value within limits for Sn 189.927 Recovery = 95.74%  
 Sr 421.552† 76795.1 503.35 ug/L 2.078 503.35 ppb 2.078 0.41%  
 QC value within limits for Sr 421.552 Recovery = 100.67%  
 Ti 334.940† 310672.7 501.42 ug/L 0.384 501.42 ppb 0.384 0.08%  
 QC value within limits for Ti 334.940 Recovery = 100.28%  
 Tl 190.801† 1574.7 491.64 ug/L 3.682 491.64 ppb 3.682 0.75%  
 QC value within limits for Tl 190.801 Recovery = 98.33%  
 U 409.014† 16222.5 507.70 ug/L 4.331 507.70 ppb 4.331 0.85%  
 QC value within limits for U 409.014 Recovery = 101.54%  
 V 292.402† 65596.8 496.19 ug/L 4.540 496.19 ppb 4.540 0.92%  
 QC value within limits for V 292.402 Recovery = 99.24%  
 Zn 213.857† 51091.7 484.08 ug/L 5.802 484.08 ppb 5.802 1.20%  
 QC value within limits for Zn 213.857 Recovery = 96.82%  
 SiO2† 74505.7 5185.4 ug/L 75.10 5185.4 ppb 75.10 1.45%  
 QC value within limits for SiO2 Recovery = 96.97%  
 All analyte(s) passed QC.

Sequence No.: 24

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/12/2010 12:45:08

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4768.3	4768.3	96.9 %		12:47:00
1	Y RADIAL	5108.3	5108.3	98.50 %		12:47:00
1	Al 396.153Radial†	-173.2	-15.6	-13.552 ug/L	-13.552 ppb	12:47:00
1	Ca 317.933Radial†	23.5	9.3	14.597 ug/L	14.597 ppb	12:47:20
1	Fe 238.204 Radial†	10.1	-1.0	-9.4342 ug/L	-9.4342 ppb	12:47:20
1	K 766.490 Radial†	2897.9	29.0	5.0197 ug/L	5.0197 ppb	12:47:00
1	Mg 279.077 IEC†	2.6	1.5	47.788 ug/L	47.788 ppb	12:47:20
1	Na 589.592 Radial†	-886.1	235.4	76.714 ug/L	76.714 ppb	12:47:00
1	Sr 421.552†	9.6	-3.7	-0.0244 ug/L	-0.0244 ppb	12:47:00
1	Sc 361.383	830975.2	830975.2	100.50 %		12:48:17
1	Y 371.029	662144.7	662144.7	99.212 %		12:48:17
1	Ag 328.068†	148.5	-149.4	-0.7361 ug/L	-0.7361 ppb	12:48:17
1	As 188.979†	-28.6	2.2	0.9242 ug/L	0.9242 ppb	12:48:37
1	B 249.677†	-425.6	171.5	4.0852 ug/L	4.0852 ppb	12:48:37
1	Ba 233.527†	-19.1	-8.7	-0.0692 ug/L	-0.0692 ppb	12:48:37
1	Be 313.107†	-3878.1	-158.6	-0.0576 ug/L	-0.0576 ppb	12:48:17
1	Cd 226.502†	-209.5	7.6	0.0926 ug/L	0.0926 ppb	12:48:37
1	Co 228.616†	-68.7	15.0	0.3097 ug/L	0.3097 ppb	12:48:37
1	Cr 267.716†	58.6	-8.3	-0.1049 ug/L	-0.1049 ppb	12:48:37
1	Cu 324.752†	4953.0	207.6	0.6292 ug/L	0.6292 ppb	12:48:17
1	Mn 257.610†	540.6	68.0	0.0733 ug/L	0.0733 ppb	12:48:37
1	Mo 202.031†	24.8	12.8	0.9629 ug/L	0.9629 ppb	12:48:37
1	Ni 231.604†	84.9	7.5	0.1915 ug/L	0.1915 ppb	12:48:37
1	P 214.914†	252.6	4.3	2.4001 ug/L	2.4001 ppb	12:48:37
1	Pb 220.353†	-57.7	9.8	1.1990 ug/L	1.1990 ppb	12:48:37
1	S 181.975 Axial†	45.9	-2.1	-2.8409 ug/L	-2.8409 ppb	12:48:37
1	Sb 206.836†	34.7	-0.6	-0.1817 ug/L	-0.1817 ppb	12:48:37
1	Se 196.026†	-23.5	2.0	1.2763 ug/L	1.2763 ppb	12:48:37
1	Si 251.611†	569.8	35.7	1.1557 ug/L	1.1557 ppb	12:48:37
1	Sn 189.927†	10.3	0.7	0.1352 ug/L	0.1352 ppb	12:48:37
1	Ti 334.940†	-1494.1	84.2	0.1272 ug/L	0.1272 ppb	12:48:17
1	Tl 190.801†	-35.5	-1.0	-0.3112 ug/L	-0.3112 ppb	12:48:37
1	U 409.014†	-3136.9	490.5	15.403 ug/L	15.403 ppb	12:48:17
1	V 292.402†	-1550.8	47.0	0.3965 ug/L	0.3965 ppb	12:48:17
1	Zn 213.857†	737.6	5.3	0.0505 ug/L	0.0505 ppb	12:48:37
1	SiO2†	602.4	67.1	4.6524 ug/L	4.6524 ppb	12:49:33
2	Sc Radial	4940.4	4940.4	100 %		12:47:25
2	Y RADIAL	5278.1	5278.1	101.8 %		12:47:25
2	Al 396.153Radial†	-180.4	-16.5	-14.389 ug/L	-14.389 ppb	12:47:25
2	Ca 317.933Radial†	24.6	9.5	14.945 ug/L	14.945 ppb	12:47:45
2	Fe 238.204 Radial†	8.4	-3.1	-27.925 ug/L	-27.925 ppb	12:47:45
2	K 766.490 Radial†	2860.4	-112.5	-19.658 ug/L	-19.658 ppb	12:47:25
2	Mg 279.077 IEC†	1.8	0.6	20.370 ug/L	20.370 ppb	12:47:45
2	Na 589.592 Radial†	-937.1	216.4	70.525 ug/L	70.525 ppb	12:47:25
2	Sr 421.552†	-16.9	-30.5	-0.2003 ug/L	-0.2003 ppb	12:47:25
2	Sc 361.383	834452.6	834452.6	100.92 %		12:48:42
2	Y 371.029	665801.8	665801.8	99.760 %		12:48:42
2	Ag 328.068†	274.1	-25.5	-0.1444 ug/L	-0.1444 ppb	12:48:42
2	As 188.979†	-19.7	11.2	4.8073 ug/L	4.8073 ppb	12:49:02
2	B 249.677†	-439.6	159.4	3.8000 ug/L	3.8000 ppb	12:49:02
2	Ba 233.527†	-4.4	5.9	0.0454 ug/L	0.0454 ppb	12:49:02
2	Be 313.107†	-3856.8	-121.5	-0.0440 ug/L	-0.0440 ppb	12:48:42
2	Cd 226.502†	-208.3	9.7	0.1187 ug/L	0.1187 ppb	12:49:02
2	Co 228.616†	-87.6	-3.4	-0.0663 ug/L	-0.0663 ppb	12:49:02
2	Cr 267.716†	87.5	20.1	0.2325 ug/L	0.2325 ppb	12:49:02
2	Cu 324.752†	4931.8	166.0	0.5022 ug/L	0.5022 ppb	12:48:42
2	Mn 257.610†	456.3	-17.7	-0.0234 ug/L	-0.0234 ppb	12:49:02
2	Mo 202.031†	38.1	25.9	1.9502 ug/L	1.9502 ppb	12:49:02
2	Ni 231.604†	100.7	22.8	0.5840 ug/L	0.5840 ppb	12:49:02

2	P 214.914†	240.6	-8.6	-5.1677 ug/L	-5.1677 ppb	12:49:02
2	Pb 220.353†	-55.5	12.2	1.4988 ug/L	1.4988 ppb	12:49:02
2	S 181.975 Axial†	46.3	-1.9	-2.6326 ug/L	-2.6326 ppb	12:49:02
2	Sb 206.836†	32.3	-3.1	-1.0435 ug/L	-1.0435 ppb	12:49:02
2	Se 196.026†	-18.4	7.1	4.5799 ug/L	4.5799 ppb	12:49:02
2	Si 251.611†	567.5	31.0	0.9895 ug/L	0.9895 ppb	12:49:02
2	Sn 189.927†	12.8	3.2	0.5853 ug/L	0.5853 ppb	12:49:02
2	Ti 334.940†	-1475.6	108.7	0.1705 ug/L	0.1705 ppb	12:48:42
2	Tl 190.801†	-32.1	2.5	0.7866 ug/L	0.7866 ppb	12:49:02
2	U 409.014†	-3253.7	387.8	12.179 ug/L	12.179 ppb	12:48:42
2	V 292.402†	-1653.9	-48.7	-0.3083 ug/L	-0.3083 ppb	12:48:42
2	Zn 213.857†	736.8	1.5	0.0139 ug/L	0.0139 ppb	12:49:02
2	SiO2†	597.5	59.7	4.1113 ug/L	4.1113 ppb	12:49:38
3	Sc Radial	4965.4	4965.4	101 %		12:47:50
3	Y RADIAL	5278.1	5278.1	101.8 %		12:47:50
3	Al 396.153Radial†	-157.3	7.2	6.2497 ug/L	6.2497 ppb	12:47:50
3	Ca 317.933Radial†	16.6	1.5	2.3916 ug/L	2.3916 ppb	12:48:10
3	Fe 238.204 Radial†	7.7	-3.8	-34.876 ug/L	-34.876 ppb	12:48:10
3	K 766.490 Radial†	2919.9	-68.0	-11.883 ug/L	-11.883 ppb	12:47:50
3	Mg 279.077 IEC†	1.8	0.6	20.696 ug/L	20.696 ppb	12:48:10
3	Na 589.592 Radial†	-904.3	253.7	82.668 ug/L	82.668 ppb	12:47:50
3	Sr 421.552†	15.4	1.6	0.0105 ug/L	0.0105 ppb	12:47:50
3	Sc 361.383	837007.5	837007.5	101.23 %		12:49:08
3	Y 371.029	668258.1	668258.1	100.13 %		12:49:08
3	Ag 328.068†	324.1	23.1	0.0890 ug/L	0.0890 ppb	12:49:08
3	As 188.979†	-31.8	-0.7	-0.3194 ug/L	-0.3194 ppb	12:49:28
3	B 249.677†	-473.5	127.3	3.0347 ug/L	3.0347 ppb	12:49:28
3	Ba 233.527†	-19.9	-9.3	-0.0744 ug/L	-0.0744 ppb	12:49:28
3	Be 313.107†	-3844.4	-97.5	-0.0351 ug/L	-0.0351 ppb	12:49:08
3	Cd 226.502†	-196.0	22.4	0.2683 ug/L	0.2683 ppb	12:49:28
3	Co 228.616†	-62.4	21.7	0.4477 ug/L	0.4477 ppb	12:49:28
3	Cr 267.716†	68.2	0.7	0.0024 ug/L	0.0024 ppb	12:49:28
3	Cu 324.752†	4922.2	141.7	0.4252 ug/L	0.4252 ppb	12:49:08
3	Mn 257.610†	499.4	23.5	0.0221 ug/L	0.0221 ppb	12:49:28
3	Mo 202.031†	18.7	6.7	0.4986 ug/L	0.4986 ppb	12:49:28
3	Ni 231.604†	89.2	11.1	0.2831 ug/L	0.2831 ppb	12:49:28
3	P 214.914†	244.6	-5.4	-3.2426 ug/L	-3.2426 ppb	12:49:28
3	Pb 220.353†	-65.6	2.3	0.2920 ug/L	0.2920 ppb	12:49:28
3	S 181.975 Axial†	47.2	-1.2	-1.5987 ug/L	-1.5987 ppb	12:49:28
3	Sb 206.836†	42.7	7.0	2.4841 ug/L	2.4841 ppb	12:49:28
3	Se 196.026†	-16.0	9.6	6.1385 ug/L	6.1385 ppb	12:49:28
3	Si 251.611†	545.8	7.9	0.2516 ug/L	0.2516 ppb	12:49:28
3	Sn 189.927†	17.1	7.4	1.3446 ug/L	1.3446 ppb	12:49:28
3	Ti 334.940†	-1459.2	129.4	0.2007 ug/L	0.2007 ppb	12:49:08
3	Tl 190.801†	-34.2	0.5	0.1671 ug/L	0.1671 ppb	12:49:28
3	U 409.014†	-3157.7	492.5	15.468 ug/L	15.468 ppb	12:49:08
3	V 292.402†	-1542.9	66.0	0.5347 ug/L	0.5347 ppb	12:49:08
3	Zn 213.857†	735.7	-1.8	-0.0142 ug/L	-0.0142 ppb	12:49:28
3	SiO2†	706.0	165.1	11.508 ug/L	11.508 ppb	12:49:43

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	834145.1	100.88 %	0.366			0.36%
Sc Radial	4891.4	99.4 %	2.18			2.19%
Y 371.029	665401.6	99.700 %	0.4609			0.46%
Y RADIAL	5221.5	100.7 %	1.89			1.88%
Ag 328.068†	-50.6	-0.2638 ug/L	0.42530	-0.2638 ppb	0.42530	161.20%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-8.3	-7.2305 ug/L	11.68173	-7.2305 ppb	11.68173	161.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.2	1.8040 ug/L	2.67422	1.8040 ppb	2.67422	148.24%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	152.7	3.6400 ug/L	0.54320	3.6400 ppb	0.54320	14.92%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-4.1	-0.0327 ug/L	0.06773	-0.0327 ppb	0.06773	206.89%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-125.9	-0.0456 ug/L	0.01133	-0.0456 ppb	0.01133	24.86%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	6.8	10.645 ug/L	7.1494	10.645 ppb	7.1494	67.16%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	13.2	0.1599 ug/L	0.09481	0.1599 ppb	0.09481	59.31%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	11.1	0.2304 ug/L	0.26602	0.2304 ppb	0.26602	115.46%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	4.1	0.0433 ug/L	0.17238	0.0433 ppb	0.17238	397.85%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	171.8	0.5189 ug/L	0.10302	0.5189 ppb	0.10302	19.86%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-2.6	-24.078 ug/L	13.1499	-24.078 ppb	13.1499	54.61%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-50.5	-8.8403 ug/L	12.61701	-8.8403 ppb	12.61701	142.72%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.9	29.618 ug/L	15.7363	29.618 ppb	15.7363	53.13%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	24.6	0.0240 ug/L	0.04840	0.0240 ppb	0.04840	201.68%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	15.1	1.1372 ug/L	0.74135	1.1372 ppb	0.74135	65.19%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	235.2	76.636 ug/L	6.0717	76.636 ppb	6.0717	7.92%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	13.8	0.3529 ug/L	0.20534	0.3529 ppb	0.20534	58.19%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-3.3	-2.0034 ug/L	3.93315	-2.0034 ppb	3.93315	196.32%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	8.1	0.9966 ug/L	0.62833	0.9966 ppb	0.62833	63.05%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-1.7	-2.3574 ug/L	0.66522	-2.3574 ppb	0.66522	28.22%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	1.1	0.4196 ug/L	1.83908	0.4196 ppb	1.83908	438.25%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	6.2	3.9982 ug/L	2.48273	3.9982 ppb	2.48273	62.10%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	24.9	0.7990 ug/L	0.48122	0.7990 ppb	0.48122	60.23%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	3.8	0.6883 ug/L	0.61125	0.6883 ppb	0.61125	88.80%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-10.9	-0.0714 ug/L	0.11297	-0.0714 ppb	0.11297	158.25%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	107.4	0.1661 ug/L	0.03694	0.1661 ppb	0.03694	22.24%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	0.7	0.2142 ug/L	0.55042	0.2142 ppb	0.55042	256.96%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	457.0	14.350 ug/L	1.8805	14.350 ppb	1.8805	13.10%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	21.5	0.2076 ug/L	0.45208	0.2076 ppb	0.45208	217.74%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	1.7	0.0167 ug/L	0.03244	0.0167 ppb	0.03244	194.07%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	97.3	6.7573 ug/L	4.12330	6.7573 ppb	4.12330	61.02%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/12/2010 13:32:00

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5085.1	5085.1	103 %		13:33:52
1	Y RADIAL	5407.7	5407.7	104.3 %		13:33:52
1	Al 396.153Radial†	5833.5	5810.9	5015.6 ug/L	5015.6 ppb	13:33:52
1	Ca 317.933Radial†	3214.0	3096.6	4853.6 ug/L	4853.6 ppb	13:34:12
1	Fe 238.204 Radial†	557.8	528.6	4830.4 ug/L	4830.4 ppb	13:34:12
1	K 766.490 Radial†	31867.2	27889.1	4856.3 ug/L	4856.3 ppb	13:33:52
1	Mg 279.077 IEC†	154.0	147.9	4865.1 ug/L	4865.1 ppb	13:34:12
1	Na 589.592 Radial†	30567.9	30744.3	10020 ug/L	10020 ppb	13:33:52
1	Sr 421.552†	78206.2	75701.1	496.18 ug/L	496.18 ppb	13:33:52
1	Sc 361.383	842858.2	842858.2	101.93 %		13:35:10
1	Y 371.029	664244.7	664244.7	99.526 %		13:35:10
1	Ag 328.068†	103528.8	101268.2	492.18 ug/L	492.18 ppb	13:35:15
1	As 188.979†	1115.6	1125.1	489.33 ug/L	489.33 ppb	13:35:35
1	B 249.677†	20392.5	20600.7	488.33 ug/L	488.33 ppb	13:35:15
1	Ba 233.527†	62462.1	61287.7	489.77 ug/L	489.77 ppb	13:35:15
1	Be 313.107†	1355303.6	1333299.6	488.05 ug/L	488.05 ppb	13:35:10
1	Cd 226.502†	41977.1	41397.1	483.14 ug/L	483.14 ppb	13:35:15
1	Co 228.616†	24244.1	23867.6	490.75 ug/L	490.75 ppb	13:35:15
1	Cr 267.716†	41662.0	40805.2	485.53 ug/L	485.53 ppb	13:35:15
1	Cu 324.752†	169355.9	161423.0	496.20 ug/L	496.20 ppb	13:35:15
1	Mn 257.610†	449828.4	440827.2	494.22 ug/L	494.22 ppb	13:35:10
1	Mo 202.031†	6554.5	6418.3	483.95 ug/L	483.95 ppb	13:35:35
1	Ni 231.604†	19434.1	18988.5	486.37 ug/L	486.37 ppb	13:35:15
1	P 214.914†	4435.8	4104.6	2319.3 ug/L	2319.3 ppb	13:35:35
1	Pb 220.353†	3932.4	3925.0	482.75 ug/L	482.75 ppb	13:35:35
1	S 181.975 Axial†	758.9	696.7	955.06 ug/L	955.06 ppb	13:35:35
1	Sb 206.836†	1461.4	1398.6	503.72 ug/L	503.72 ppb	13:35:35
1	Se 196.026†	741.2	752.5	508.96 ug/L	508.96 ppb	13:35:35
1	Si 251.611†	77063.7	75070.8	2449.7 ug/L	2449.7 ppb	13:35:15
1	Sn 189.927†	2692.0	2631.5	476.71 ug/L	476.71 ppb	13:35:35
1	Ti 334.940†	308294.1	304018.0	490.67 ug/L	490.67 ppb	13:35:15
1	Tl 190.801†	1570.4	1575.0	491.65 ug/L	491.65 ppb	13:35:35
1	U 409.014†	12851.4	16219.6	507.63 ug/L	507.63 ppb	13:35:15
1	V 292.402†	64961.1	65319.3	494.13 ug/L	494.13 ppb	13:35:15
1	Zn 213.857†	52693.9	50965.9	482.92 ug/L	482.92 ppb	13:35:15
1	SiO2†	76625.2	74639.6	5194.8 ug/L	5194.8 ppb	13:36:43
2	Sc Radial	4971.3	4971.3	101 %		13:34:18
2	Y RADIAL	5253.2	5253.2	101.3 %		13:34:18
2	Al 396.153Radial†	5683.8	5792.0	4999.0 ug/L	4999.0 ppb	13:34:18
2	Ca 317.933Radial†	3202.8	3156.8	4947.9 ug/L	4947.9 ppb	13:34:38
2	Fe 238.204 Radial†	560.4	543.5	4966.5 ug/L	4966.5 ppb	13:34:38
2	K 766.490 Radial†	31220.1	27954.6	4867.7 ug/L	4867.7 ppb	13:34:18
2	Mg 279.077 IEC†	155.7	153.0	5032.1 ug/L	5032.1 ppb	13:34:38
2	Na 589.592 Radial†	29804.2	30665.6	9993.9 ug/L	9993.9 ppb	13:34:18
2	Sr 421.552†	76087.4	75336.5	493.79 ug/L	493.79 ppb	13:34:18
2	Sc 361.383	841080.6	841080.6	101.72 %		13:35:41
2	Y 371.029	663112.6	663112.6	99.357 %		13:35:41
2	Ag 328.068†	103310.4	101268.1	492.23 ug/L	492.23 ppb	13:35:46
2	As 188.979†	1123.9	1135.6	493.87 ug/L	493.87 ppb	13:36:06
2	B 249.677†	20417.6	20667.8	489.91 ug/L	489.91 ppb	13:35:46
2	Ba 233.527†	62353.0	61310.0	489.95 ug/L	489.95 ppb	13:35:46
2	Be 313.107†	1353715.1	1334548.1	488.51 ug/L	488.51 ppb	13:35:41
2	Cd 226.502†	41854.1	41363.1	482.73 ug/L	482.73 ppb	13:35:46
2	Co 228.616†	24107.0	23783.1	489.02 ug/L	489.02 ppb	13:35:46
2	Cr 267.716†	41642.6	40872.6	486.33 ug/L	486.33 ppb	13:35:46
2	Cu 324.752†	168954.8	161379.9	496.08 ug/L	496.08 ppb	13:35:46
2	Mn 257.610†	448186.3	440145.6	493.46 ug/L	493.46 ppb	13:35:41
2	Mo 202.031†	6591.4	6468.2	487.72 ug/L	487.72 ppb	13:36:06
2	Ni 231.604†	19353.5	18949.6	485.37 ug/L	485.37 ppb	13:35:46

2	P 214.914†	4459.5	4137.1	2338.3 ug/L	2338.3 ppb	13:36:06
2	Pb 220.353†	3961.3	3961.5	487.22 ug/L	487.22 ppb	13:36:06
2	S 181.975 Axial†	764.5	703.8	964.88 ug/L	964.88 ppb	13:36:06
2	Sb 206.836†	1489.6	1429.3	514.54 ug/L	514.54 ppb	13:36:06
2	Se 196.026†	747.1	759.8	514.17 ug/L	514.17 ppb	13:36:06
2	Si 251.611†	76722.0	74894.7	2443.9 ug/L	2443.9 ppb	13:35:46
2	Sn 189.927†	2712.1	2656.8	481.30 ug/L	481.30 ppb	13:36:06
2	Ti 334.940†	307166.2	303548.4	489.92 ug/L	489.92 ppb	13:35:46
2	Tl 190.801†	1586.1	1593.6	497.42 ug/L	497.42 ppb	13:36:06
2	U 409.014†	12737.3	16134.1	504.93 ug/L	504.93 ppb	13:35:46
2	V 292.402†	64910.7	65404.4	494.80 ug/L	494.80 ppb	13:35:46
2	Zn 213.857†	52442.2	50827.8	481.58 ug/L	481.58 ppb	13:35:46
2	SiO2†	77877.1	76029.2	5291.6 ug/L	5291.6 ppb	13:36:48
3	Sc Radial	4981.5	4981.5	101 %		13:34:43
3	Y RADIAL	5257.6	5257.6	101.4 %		13:34:43
3	Al 396.153Radial†	5769.4	5865.1	5062.6 ug/L	5062.6 ppb	13:34:43
3	Ca 317.933Radial†	3214.5	3161.9	4955.8 ug/L	4955.8 ppb	13:35:03
3	Fe 238.204 Radial†	559.0	541.0	4943.8 ug/L	4943.8 ppb	13:35:03
3	K 766.490 Radial†	31515.8	28183.5	4907.5 ug/L	4907.5 ppb	13:34:43
3	Mg 279.077 IEC†	156.1	153.1	5035.2 ug/L	5035.2 ppb	13:35:03
3	Na 589.592 Radial†	30208.3	31004.6	10104 ug/L	10104 ppb	13:34:43
3	Sr 421.552†	77335.6	76415.7	500.86 ug/L	500.86 ppb	13:34:43
3	Sc 361.383	849092.7	849092.7	102.69 %		13:36:12
3	Y 371.029	669149.3	669149.3	100.26 %		13:36:12
3	Ag 328.068†	102998.9	100006.4	486.11 ug/L	486.11 ppb	13:36:17
3	As 188.979†	1116.1	1117.6	486.04 ug/L	486.04 ppb	13:36:37
3	B 249.677†	20346.8	20409.3	483.77 ug/L	483.77 ppb	13:36:17
3	Ba 233.527†	62443.3	60819.5	486.03 ug/L	486.03 ppb	13:36:17
3	Be 313.107†	1368910.2	1336787.4	489.31 ug/L	489.31 ppb	13:36:12
3	Cd 226.502†	41910.8	41030.1	478.84 ug/L	478.84 ppb	13:36:17
3	Co 228.616†	24221.8	23671.3	486.72 ug/L	486.72 ppb	13:36:17
3	Cr 267.716†	41681.1	40523.7	482.18 ug/L	482.18 ppb	13:36:17
3	Cu 324.752†	168076.7	158957.4	488.63 ug/L	488.63 ppb	13:36:17
3	Mn 257.610†	452947.2	440624.2	494.00 ug/L	494.00 ppb	13:36:12
3	Mo 202.031†	6606.2	6421.4	484.20 ug/L	484.20 ppb	13:36:37
3	Ni 231.604†	19414.8	18829.7	482.30 ug/L	482.30 ppb	13:36:17
3	P 214.914†	4469.2	4105.2	2321.1 ug/L	2321.1 ppb	13:36:37
3	Pb 220.353†	3974.4	3937.5	484.29 ug/L	484.29 ppb	13:36:37
3	S 181.975 Axial†	759.5	691.9	948.43 ug/L	948.43 ppb	13:36:37
3	Sb 206.836†	1477.9	1404.1	505.62 ug/L	505.62 ppb	13:36:37
3	Se 196.026†	742.1	748.1	506.40 ug/L	506.40 ppb	13:36:37
3	Si 251.611†	76655.6	74118.3	2418.5 ug/L	2418.5 ppb	13:36:17
3	Sn 189.927†	2709.9	2629.6	476.38 ug/L	476.38 ppb	13:36:37
3	Ti 334.940†	306665.2	300211.0	484.53 ug/L	484.53 ppb	13:36:17
3	Tl 190.801†	1581.0	1574.0	491.32 ug/L	491.32 ppb	13:36:37
3	U 409.014†	12742.7	16021.2	501.40 ug/L	501.40 ppb	13:36:17
3	V 292.402†	64714.0	64610.7	488.83 ug/L	488.83 ppb	13:36:17
3	Zn 213.857†	52567.0	50462.8	478.12 ug/L	478.12 ppb	13:36:17
3	SiO2†	76786.3	74244.5	5167.2 ug/L	5167.2 ppb	13:36:53

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	844343.8	102.11 %	0.509			0.50%
Sc Radial	5012.6	102 %	1.3			1.26%
Y 371.029	665502.2	99.715 %	0.4808			0.48%
Y RADIAL	5306.2	102.3 %	1.70			1.66%
Ag 328.068†	100847.6	490.17 ug/L	3.521	490.17 ppb	3.521	0.72%
QC value within limits for Ag 328.068 Recovery = 98.03%						
Al 396.153Radial†	5822.6	5025.8 ug/L	32.96	5025.8 ppb	32.96	0.66%
QC value within limits for Al 396.153Radial Recovery = 100.52%						
As 188.979†	1126.1	489.75 ug/L	3.931	489.75 ppb	3.931	0.80%
QC value within limits for As 188.979 Recovery = 97.95%						
B 249.677†	20559.3	487.34 ug/L	3.190	487.34 ppb	3.190	0.65%
QC value within limits for B 249.677 Recovery = 97.47%						
Ba 233.527†	61139.1	488.58 ug/L	2.214	488.58 ppb	2.214	0.45%
QC value within limits for Ba 233.527 Recovery = 97.72%						
Be 313.107†	1334878.4	488.62 ug/L	0.638	488.62 ppb	0.638	0.13%
QC value within limits for Be 313.107 Recovery = 97.72%						
Ca 317.933Radial†	3138.4	4919.1 ug/L	56.90	4919.1 ppb	56.90	1.16%

QC value within limits for Ca 317.933 Radial Recovery = 98.38%

Cd	226.502†	41263.4	481.57 ug/L	2.372	481.57 ppb	2.372	0.49%
QC value within limits for Cd 226.502 Recovery = 96.31%							
Co	228.616†	23774.0	488.83 ug/L	2.019	488.83 ppb	2.019	0.41%
QC value within limits for Co 228.616 Recovery = 97.77%							
Cr	267.716†	40733.8	484.68 ug/L	2.203	484.68 ppb	2.203	0.45%
QC value within limits for Cr 267.716 Recovery = 96.94%							
Cu	324.752†	160586.7	493.64 ug/L	4.335	493.64 ppb	4.335	0.88%
QC value within limits for Cu 324.752 Recovery = 98.73%							
Fe	238.204 Radial†	537.7	4913.6 ug/L	72.91	4913.6 ppb	72.91	1.48%
QC value within limits for Fe 238.204 Radial Recovery = 98.27%							
K	766.490 Radial†	28009.1	4877.2 ug/L	26.92	4877.2 ppb	26.92	0.55%
QC value within limits for K 766.490 Radial Recovery = 97.54%							
Mg	279.077 IEC†	151.3	4977.5 ug/L	97.33	4977.5 ppb	97.33	1.96%
QC value within limits for Mg 279.077 IEC Recovery = 99.55%							
Mn	257.610†	440532.3	493.89 ug/L	0.389	493.89 ppb	0.389	0.08%
QC value within limits for Mn 257.610 Recovery = 98.78%							
Mo	202.031†	6436.0	485.29 ug/L	2.110	485.29 ppb	2.110	0.43%
QC value within limits for Mo 202.031 Recovery = 97.06%							
Na	589.592 Radial†	30804.9	10039 ug/L	57.8	10039 ppb	57.8	0.58%
QC value within limits for Na 589.592 Radial Recovery = 100.39%							
Ni	231.604†	18922.6	484.68 ug/L	2.120	484.68 ppb	2.120	0.44%
QC value within limits for Ni 231.604 Recovery = 96.94%							
P	214.914†	4115.7	2326.2 ug/L	10.52	2326.2 ppb	10.52	0.45%
QC value within limits for P 214.914 Recovery = 93.05%							
Pb	220.353†	3941.3	484.76 ug/L	2.272	484.76 ppb	2.272	0.47%
QC value within limits for Pb 220.353 Recovery = 96.95%							
S	181.975 Axial†	697.5	956.12 ug/L	8.280	956.12 ppb	8.280	0.87%
QC value within limits for S 181.975 Axial Recovery = 95.61%							
Sb	206.836†	1410.7	507.96 ug/L	5.775	507.96 ppb	5.775	1.14%
QC value within limits for Sb 206.836 Recovery = 101.59%							
Se	196.026†	753.5	509.84 ug/L	3.964	509.84 ppb	3.964	0.78%
QC value within limits for Se 196.026 Recovery = 101.97%							
Si	251.611†	74694.6	2437.4 ug/L	16.57	2437.4 ppb	16.57	0.68%
QC value within limits for Si 251.611 Recovery = 97.49%							
Sn	189.927†	2639.3	478.13 ug/L	2.751	478.13 ppb	2.751	0.58%
QC value within limits for Sn 189.927 Recovery = 95.63%							
Sr	421.552†	75817.8	496.94 ug/L	3.598	496.94 ppb	3.598	0.72%
QC value within limits for Sr 421.552 Recovery = 99.39%							
Ti	334.940†	302592.5	488.37 ug/L	3.349	488.37 ppb	3.349	0.69%
QC value within limits for Ti 334.940 Recovery = 97.67%							
Tl	190.801†	1580.8	493.47 ug/L	3.432	493.47 ppb	3.432	0.70%
QC value within limits for Tl 190.801 Recovery = 98.69%							
U	409.014†	16124.9	504.65 ug/L	3.127	504.65 ppb	3.127	0.62%
QC value within limits for U 409.014 Recovery = 100.93%							
V	292.402†	65111.4	492.58 ug/L	3.272	492.58 ppb	3.272	0.66%
QC value within limits for V 292.402 Recovery = 98.52%							
Zn	213.857†	50752.2	480.87 ug/L	2.473	480.87 ppb	2.473	0.51%
QC value within limits for Zn 213.857 Recovery = 96.17%							
SiO2†		74971.1	5217.8 ug/L	65.35	5217.8 ppb	65.35	1.25%
QC value within limits for SiO2 Recovery = 97.58%							

All analyte(s) passed QC.



Sequence No.: 8

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/12/2010 13:39:03

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4859.8	4859.8	98.7 %		13:40:55
1	Y RADIAL	5175.1	5175.1	99.78 %		13:40:55
1	Al 396.153Radial†	-160.1	1.0	0.8118 ug/L	0.8118 ppb	13:40:55
1	Ca 317.933Radial†	27.2	12.6	19.741 ug/L	19.741 ppb	13:41:15
1	Fe 238.204 Radial†	10.9	-0.4	-3.3394 ug/L	-3.3394 ppb	13:41:15
1	K 766.490 Radial†	3004.8	80.9	14.064 ug/L	14.064 ppb	13:40:55
1	Mg 279.077 IEC†	-0.6	-1.8	-60.390 ug/L	-60.390 ppb	13:41:15
1	Na 589.592 Radial†	-872.7	266.2	86.740 ug/L	86.740 ppb	13:40:55
1	Sr 421.552†	-8.1	-21.9	-0.1435 ug/L	-0.1435 ppb	13:40:55
1	Sc 361.383	827370.4	827370.4	100.06 %		13:42:12
1	Y 371.029	661124.8	661124.8	99.059 %		13:42:12
1	Ag 328.068†	268.6	-28.7	-0.1461 ug/L	-0.1461 ppb	13:42:12
1	As 188.979†	-40.9	-10.2	-4.4166 ug/L	-4.4166 ppb	13:42:32
1	B 249.677†	-447.9	147.4	3.5103 ug/L	3.5103 ppb	13:42:32
1	Ba 233.527†	-9.8	0.5	0.0048 ug/L	0.0048 ppb	13:42:32
1	Be 313.107†	-3809.4	-106.7	-0.0387 ug/L	-0.0387 ppb	13:42:12
1	Cd 226.502†	-190.8	25.4	0.2983 ug/L	0.2983 ppb	13:42:32
1	Co 228.616†	-69.4	14.0	0.2914 ug/L	0.2914 ppb	13:42:32
1	Cr 267.716†	65.8	-0.9	-0.0140 ug/L	-0.0140 ppb	13:42:32
1	Cu 324.752†	4959.5	235.5	0.7188 ug/L	0.7188 ppb	13:42:12
1	Mn 257.610†	474.6	4.5	0.0071 ug/L	0.0071 ppb	13:42:32
1	Mo 202.031†	30.5	18.6	1.4045 ug/L	1.4045 ppb	13:42:32
1	Ni 231.604†	86.6	9.5	0.2443 ug/L	0.2443 ppb	13:42:32
1	P 214.914†	234.1	-13.1	-7.8333 ug/L	-7.8333 ppb	13:42:32
1	Pb 220.353†	-68.6	-1.4	-0.1733 ug/L	-0.1733 ppb	13:42:32
1	S 181.975 Axial†	44.9	-2.9	-3.9631 ug/L	-3.9631 ppb	13:42:32
1	Sb 206.836†	31.5	-3.6	-1.2324 ug/L	-1.2324 ppb	13:42:32
1	Se 196.026†	-17.9	7.5	4.9019 ug/L	4.9019 ppb	13:42:32
1	Si 251.611†	546.7	15.1	0.4755 ug/L	0.4755 ppb	13:42:32
1	Sn 189.927†	11.4	1.9	0.3532 ug/L	0.3532 ppb	13:42:32
1	Ti 334.940†	-1482.1	89.7	0.1484 ug/L	0.1484 ppb	13:42:12
1	Tl 190.801†	-32.5	1.8	0.5717 ug/L	0.5717 ppb	13:42:32
1	U 409.014†	-3322.0	291.9	9.1667 ug/L	9.1667 ppb	13:42:12
1	V 292.402†	-1551.9	39.2	0.3295 ug/L	0.3295 ppb	13:42:12
1	Zn 213.857†	712.8	-16.2	-0.1573 ug/L	-0.1573 ppb	13:42:32
1	SiO2†	547.6	14.9	1.0029 ug/L	1.0029 ppb	13:43:28
2	Sc Radial	5005.5	5005.5	102 %		13:41:20
2	Y RADIAL	5330.8	5330.8	102.8 %		13:41:20
2	Al 396.153Radial†	-110.7	54.4	47.096 ug/L	47.096 ppb	13:41:20
2	Ca 317.933Radial†	19.1	3.9	6.0480 ug/L	6.0480 ppb	13:41:40
2	Fe 238.204 Radial†	10.9	-0.7	-6.1594 ug/L	-6.1594 ppb	13:41:40
2	K 766.490 Radial†	3288.7	271.6	47.253 ug/L	47.253 ppb	13:41:20
2	Mg 279.077 IEC†	4.6	3.3	108.86 ug/L	108.86 ppb	13:41:40
2	Na 589.592 Radial†	-374.7	781.7	254.77 ug/L	254.77 ppb	13:41:20
2	Sr 421.552†	23.4	9.4	0.0615 ug/L	0.0615 ppb	13:41:20
2	Sc 361.383	834205.8	834205.8	100.89 %		13:42:37
2	Y 371.029	666970.0	666970.0	99.935 %		13:42:37
2	Ag 328.068†	227.9	-71.2	-0.3570 ug/L	-0.3570 ppb	13:42:37
2	As 188.979†	-19.3	11.5	4.9657 ug/L	4.9657 ppb	13:42:57
2	B 249.677†	-458.0	141.1	3.3591 ug/L	3.3591 ppb	13:42:57
2	Ba 233.527†	-17.8	-7.3	-0.0580 ug/L	-0.0580 ppb	13:42:57
2	Be 313.107†	-3913.7	-179.0	-0.0649 ug/L	-0.0649 ppb	13:42:37
2	Cd 226.502†	-200.1	17.8	0.2109 ug/L	0.2109 ppb	13:42:57
2	Co 228.616†	-75.3	8.7	0.1821 ug/L	0.1821 ppb	13:42:57
2	Cr 267.716†	75.5	8.2	0.0917 ug/L	0.0917 ppb	13:42:57
2	Cu 324.752†	4987.0	222.3	0.6750 ug/L	0.6750 ppb	13:42:37
2	Mn 257.610†	485.2	11.1	0.0073 ug/L	0.0073 ppb	13:42:57
2	Mo 202.031†	28.3	16.2	1.2210 ug/L	1.2210 ppb	13:42:57
2	Ni 231.604†	88.1	10.3	0.2648 ug/L	0.2648 ppb	13:42:57

2	P 214.914†	242.9	-6.2	-3.7932 ug/L	-3.7932 ppb	13:42:57
2	Pb 220.353†	-78.5	-10.6	-1.2902 ug/L	-1.2902 ppb	13:42:57
2	S 181.975 Axial†	45.0	-3.2	-4.3682 ug/L	-4.3682 ppb	13:42:57
2	Sb 206.836†	37.5	2.0	0.7375 ug/L	0.7375 ppb	13:42:57
2	Se 196.026†	-9.1	16.3	10.655 ug/L	10.655 ppb	13:42:57
2	Si 251.611†	540.0	3.9	0.1134 ug/L	0.1134 ppb	13:42:57
2	Sn 189.927†	10.0	0.4	0.0792 ug/L	0.0792 ppb	13:42:57
2	Ti 334.940†	-1471.9	112.0	0.1664 ug/L	0.1664 ppb	13:42:37
2	Tl 190.801†	-35.0	-0.3	-0.1043 ug/L	-0.1043 ppb	13:42:57
2	U 409.014†	-3185.5	454.5	14.270 ug/L	14.270 ppb	13:42:37
2	V 292.402†	-1574.5	29.5	0.2677 ug/L	0.2677 ppb	13:42:37
2	Zn 213.857†	727.3	-7.7	-0.0753 ug/L	-0.0753 ppb	13:42:57
2	SiO2†	552.4	15.1	1.0231 ug/L	1.0231 ppb	13:43:33
3	Sc Radial	4926.0	4926.0	100 %		13:41:45
3	Y RADIAL	5234.8	5234.8	100.9 %		13:41:45
3	Al 396.153Radial†	-156.1	7.2	6.2213 ug/L	6.2213 ppb	13:41:45
3	Ca 317.933Radial†	19.3	4.3	6.7898 ug/L	6.7898 ppb	13:42:05
3	Fe 238.204 Radial†	10.2	-1.2	-11.336 ug/L	-11.336 ppb	13:42:05
3	K 766.490 Radial†	2806.7	-157.9	-27.582 ug/L	-27.582 ppb	13:41:45
3	Mg 279.077 IEC†	4.0	2.8	91.104 ug/L	91.104 ppb	13:42:05
3	Na 589.592 Radial†	-825.1	325.6	106.11 ug/L	106.11 ppb	13:41:45
3	Sr 421.552†	13.5	-0.1	-0.0008 ug/L	-0.0008 ppb	13:41:45
3	Sc 361.383	826011.7	826011.7	99.896 %		13:43:02
3	Y 371.029	659271.6	659271.6	98.781 %		13:43:02
3	Ag 328.068†	218.0	-78.9	-0.3926 ug/L	-0.3926 ppb	13:43:02
3	As 188.979†	-29.2	1.5	0.6254 ug/L	0.6254 ppb	13:43:22
3	B 249.677†	-457.8	136.8	3.2582 ug/L	3.2582 ppb	13:43:22
3	Ba 233.527†	-16.9	-6.6	-0.0530 ug/L	-0.0530 ppb	13:43:22
3	Be 313.107†	-3983.1	-287.0	-0.1044 ug/L	-0.1044 ppb	13:43:02
3	Cd 226.502†	-189.5	26.4	0.3115 ug/L	0.3115 ppb	13:43:22
3	Co 228.616†	-86.5	-3.2	-0.0660 ug/L	-0.0660 ppb	13:43:22
3	Cr 267.716†	88.4	21.9	0.2561 ug/L	0.2561 ppb	13:43:22
3	Cu 324.752†	4984.8	269.1	0.8212 ug/L	0.8212 ppb	13:43:02
3	Mn 257.610†	494.6	25.3	0.0235 ug/L	0.0235 ppb	13:43:22
3	Mo 202.031†	17.9	6.1	0.4563 ug/L	0.4563 ppb	13:43:22
3	Ni 231.604†	101.2	24.2	0.6213 ug/L	0.6213 ppb	13:43:22
3	P 214.914†	219.8	-27.0	-16.026 ug/L	-16.026 ppb	13:43:22
3	Pb 220.353†	-58.7	8.4	1.0279 ug/L	1.0279 ppb	13:43:22
3	S 181.975 Axial†	43.0	-4.7	-6.4614 ug/L	-6.4614 ppb	13:43:22
3	Sb 206.836†	44.7	9.6	3.3772 ug/L	3.3772 ppb	13:43:22
3	Se 196.026†	-22.5	2.9	1.8646 ug/L	1.8646 ppb	13:43:22
3	Si 251.611†	537.5	6.8	0.2159 ug/L	0.2159 ppb	13:43:22
3	Sn 189.927†	16.6	7.2	1.2960 ug/L	1.2960 ppb	13:43:22
3	Ti 334.940†	-1455.2	114.2	0.1735 ug/L	0.1735 ppb	13:43:02
3	Tl 190.801†	-30.4	3.9	1.2079 ug/L	1.2079 ppb	13:43:22
3	U 409.014†	-3300.5	308.0	9.6716 ug/L	9.6716 ppb	13:43:02
3	V 292.402†	-1584.7	3.8	0.0567 ug/L	0.0567 ppb	13:43:02
3	Zn 213.857†	747.0	19.1	0.1795 ug/L	0.1795 ppb	13:43:22
3	SiO2†	621.7	90.0	6.2675 ug/L	6.2675 ppb	13:43:38

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	829196.0	100.28 %	0.531			0.53%
Sc Radial	4930.4	100 %	1.5			1.48%
Y 371.029	662455.5	99.258 %	0.6020			0.61%
Y RADIAL	5246.9	101.2 %	1.51			1.50%
Ag 328.068†	-59.6	-0.2986 ug/L	0.13322	-0.2986 ppb	0.13322	44.62%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	20.9	18.043 ug/L	25.3057	18.043 ppb	25.3057	140.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.9	0.3915 ug/L	4.69553	0.3915 ppb	4.69553	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	141.7	3.3759 ug/L	0.12689	3.3759 ppb	0.12689	3.76%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-4.5	-0.0354 ug/L	0.03490	-0.0354 ppb	0.03490	98.53%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-190.9	-0.0693 ug/L	0.03308	-0.0693 ppb	0.03308	47.72%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	6.9	10.860 ug/L	7.7007	10.860 ppb	7.7007	70.91%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	23.2	0.2735 ug/L	0.05466	0.2735 ppb	0.05466	19.98%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	6.5	0.1358 ug/L	0.18312	0.1358 ppb	0.18312	134.82%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	9.7	0.1113 ug/L	0.13614	0.1113 ppb	0.13614	122.36%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	242.3	0.7383 ug/L	0.07501	0.7383 ppb	0.07501	10.16%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.8	-6.9449 ug/L	4.05579	-6.9449 ppb	4.05579	58.40%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	64.9	11.245 ug/L	37.4972	11.245 ppb	37.4972	333.46%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.4	46.523 ug/L	93.0146	46.523 ppb	93.0146	199.93%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	13.6	0.0127 ug/L	0.00936	0.0127 ppb	0.00936	74.01%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	13.6	1.0273 ug/L	0.50291	1.0273 ppb	0.50291	48.96%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	457.8	149.21 ug/L	91.932	149.21 ppb	91.932	61.61%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	14.7	0.3768 ug/L	0.21198	0.3768 ppb	0.21198	56.25%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-15.4	-9.2175 ug/L	6.23276	-9.2175 ppb	6.23276	67.62%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-1.2	-0.1452 ug/L	1.15929	-0.1452 ppb	1.15929	798.56%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-3.6	-4.9309 ug/L	1.34084	-4.9309 ppb	1.34084	27.19%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	2.7	0.9608 ug/L	2.31288	0.9608 ppb	2.31288	240.73%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	8.9	5.8070 ug/L	4.46432	5.8070 ppb	4.46432	76.88%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	8.6	0.2683 ug/L	0.18665	0.2683 ppb	0.18665	69.57%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	3.2	0.5761 ug/L	0.63827	0.5761 ppb	0.63827	110.79%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-4.2	-0.0276 ug/L	0.10510	-0.0276 ppb	0.10510	380.59%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	105.3	0.1628 ug/L	0.01296	0.1628 ppb	0.01296	7.96%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	1.8	0.5584 ug/L	0.65623	0.5584 ppb	0.65623	117.52%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	351.5	11.036 ug/L	2.8119	11.036 ppb	2.8119	25.48%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	24.2	0.2180 ug/L	0.14303	0.2180 ppb	0.14303	65.61%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-1.6	-0.0177 ug/L	0.17565	-0.0177 ppb	0.17565	992.59%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	40.0	2.7645 ug/L	3.03368	2.7645 ppb	3.03368	109.74%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

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Analysis Begun

Start Time: 2/12/2010 13:59:43

Plasma On Time: 2/12/2010 07:08:18

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601 Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021210.sif

Batch ID:

Results Data Set: 021210

Results Library: C:\pe\Optima3\Results\Results.mdb

=====  
Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/12/2010 13:59:44

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:  
=====

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4925.5	4925.5	100 %		14:01:37
1	Y RADIAL	5191.2	5191.2	100.1 %		14:01:37
1	Al 396.153Radial†	5671.2	5831.6	5033.4 ug/L	5033.4 ppb	14:01:37
1	Ca 317.933Radial†	3234.9	3218.3	5044.3 ug/L	5044.3 ppb	14:01:57
1	Fe 238.204 Radial†	562.4	550.7	5032.1 ug/L	5032.1 ppb	14:01:57
1	K 766.490 Radial†	31148.6	28170.1	4905.2 ug/L	4905.2 ppb	14:01:37
1	Mg 279.077 IEC†	156.8	155.5	5115.4 ug/L	5115.4 ppb	14:01:57
1	Na 589.592 Radial†	29915.2	31050.6	10119 ug/L	10119 ppb	14:01:37
1	Sr 421.552†	75949.3	75897.9	497.47 ug/L	497.47 ppb	14:01:37
1	Sc 361.383	849262.1	849262.1	102.71 %		14:02:54
1	Y 371.029	671257.7	671257.7	100.58 %		14:02:54
1	Ag 328.068†	104488.8	101437.0	493.07 ug/L	493.07 ppb	14:02:59
1	As 188.979†	1119.8	1120.9	487.55 ug/L	487.55 ppb	14:03:19
1	B 249.677†	20650.3	20700.9	490.68 ug/L	490.68 ppb	14:02:59
1	Ba 233.527†	63419.9	61758.2	493.53 ug/L	493.53 ppb	14:02:59
1	Be 313.107†	1366797.4	1334464.5	488.48 ug/L	488.48 ppb	14:02:54
1	Cd 226.502†	42877.0	41962.7	489.72 ug/L	489.72 ppb	14:02:59
1	Co 228.616†	24558.9	23994.8	493.37 ug/L	493.37 ppb	14:02:59
1	Cr 267.716†	42386.2	41202.1	490.25 ug/L	490.25 ppb	14:02:59
1	Cu 324.752†	169750.3	160554.2	493.54 ug/L	493.54 ppb	14:02:59
1	Mn 257.610†	452979.5	440567.7	493.94 ug/L	493.94 ppb	14:02:54
1	Mo 202.031†	6656.2	6468.9	487.78 ug/L	487.78 ppb	14:03:19
1	Ni 231.604†	19674.5	19078.8	488.68 ug/L	488.68 ppb	14:02:59
1	P 214.914†	4513.1	4147.1	2344.8 ug/L	2344.8 ppb	14:03:19
1	Pb 220.353†	4023.1	3984.2	490.01 ug/L	490.01 ppb	14:03:19
1	S 181.975 Axial†	774.8	706.6	968.67 ug/L	968.67 ppb	14:03:19
1	Sb 206.836†	1490.8	1416.4	510.16 ug/L	510.16 ppb	14:03:19
1	Se 196.026†	748.2	753.9	510.52 ug/L	510.52 ppb	14:03:19
1	Si 251.611†	77654.6	75076.1	2449.8 ug/L	2449.8 ppb	14:02:59
1	Sn 189.927†	2772.4	2689.8	487.29 ug/L	487.29 ppb	14:03:19
1	Ti 334.940†	310725.8	304105.0	490.82 ug/L	490.82 ppb	14:02:59
1	Tl 190.801†	1589.7	1582.1	493.85 ug/L	493.85 ppb	14:03:19
1	U 409.014†	13014.2	16283.1	509.59 ug/L	509.59 ppb	14:02:59
1	V 292.402†	65944.0	65795.7	497.72 ug/L	497.72 ppb	14:02:59
1	Zn 213.857†	53325.6	51191.2	485.03 ug/L	485.03 ppb	14:02:59
1	SiO2†	78956.3	76342.4	5313.5 ug/L	5313.5 ppb	14:04:27
2	Sc Radial	4834.9	4834.9	98.2 %		14:02:02
2	Y RADIAL	5107.5	5107.5	98.48 %		14:02:02
2	Al 396.153Radial†	5627.3	5893.1	5086.7 ug/L	5086.7 ppb	14:02:02
2	Ca 317.933Radial†	3236.2	3280.2	5141.3 ug/L	5141.3 ppb	14:02:22
2	Fe 238.204 Radial†	566.2	565.1	5163.8 ug/L	5163.8 ppb	14:02:22
2	K 766.490 Radial†	30936.9	28538.0	4969.2 ug/L	4969.2 ppb	14:02:02
2	Mg 279.077 IEC†	154.1	155.8	5123.4 ug/L	5123.4 ppb	14:02:22
2	Na 589.592 Radial†	29570.7	31260.1	10188 ug/L	10188 ppb	14:02:02
2	Sr 421.552†	75143.8	76500.3	501.41 ug/L	501.41 ppb	14:02:02
2	Sc 361.383	856977.4	856977.4	103.64 %		14:03:25
2	Y 371.029	675815.0	675815.0	101.26 %		14:03:25

2	Ag 328.068†	105519.6	101515.7	493.51 ug/L	493.51 ppb	14:03:30
2	As 188.979†	1136.6	1127.3	490.37 ug/L	490.37 ppb	14:03:50
2	B 249.677†	20866.0	20728.1	491.29 ug/L	491.29 ppb	14:03:30
2	Ba 233.527†	64080.2	61839.4	494.18 ug/L	494.18 ppb	14:03:30
2	Be 313.107†	1381318.7	1336494.9	489.22 ug/L	489.22 ppb	14:03:25
2	Cd 226.502†	43443.4	42133.3	491.70 ug/L	491.70 ppb	14:03:30
2	Co 228.616†	24910.8	24119.1	495.92 ug/L	495.92 ppb	14:03:30
2	Cr 267.716†	42764.4	41195.5	490.18 ug/L	490.18 ppb	14:03:30
2	Cu 324.752†	171188.4	160453.8	493.24 ug/L	493.24 ppb	14:03:30
2	Mn 257.610†	458577.5	441998.3	495.55 ug/L	495.55 ppb	14:03:25
2	Mo 202.031†	6718.2	6470.3	487.90 ug/L	487.90 ppb	14:03:50
2	Ni 231.604†	20018.9	19238.6	492.77 ug/L	492.77 ppb	14:03:30
2	P 214.914†	4553.7	4146.7	2344.5 ug/L	2344.5 ppb	14:03:50
2	Pb 220.353†	4046.5	3971.6	488.46 ug/L	488.46 ppb	14:03:50
2	S 181.975 Axial†	789.5	714.0	978.78 ug/L	978.78 ppb	14:03:50
2	Sb 206.836†	1496.0	1408.3	507.34 ug/L	507.34 ppb	14:03:50
2	Se 196.026†	757.9	756.7	512.75 ug/L	512.75 ppb	14:03:50
2	Si 251.611†	78694.4	75398.7	2460.4 ug/L	2460.4 ppb	14:03:30
2	Sn 189.927†	2795.7	2688.0	486.98 ug/L	486.98 ppb	14:03:50
2	Ti 334.940†	314129.5	304665.4	491.74 ug/L	491.74 ppb	14:03:30
2	Tl 190.801†	1612.0	1589.6	496.19 ug/L	496.19 ppb	14:03:50
2	U 409.014†	12865.6	16025.6	501.49 ug/L	501.49 ppb	14:03:30
2	V 292.402†	66599.4	65850.1	498.09 ug/L	498.09 ppb	14:03:30
2	Zn 213.857†	54034.0	51407.3	487.05 ug/L	487.05 ppb	14:03:30
2	SiO2†	78614.2	75320.2	5242.1 ug/L	5242.1 ppb	14:04:32
3	Sc Radial	4903.2	4903.2	99.6 %		14:02:27
3	Y RADIAL	5201.2	5201.2	100.3 %		14:02:27
3	Al 396.153Radial†	5672.8	5859.1	5057.2 ug/L	5057.2 ppb	14:02:27
3	Ca 317.933Radial†	3233.3	3231.4	5064.9 ug/L	5064.9 ppb	14:02:47
3	Fe 238.204 Radial†	560.4	551.3	5037.6 ug/L	5037.6 ppb	14:02:47
3	K 766.490 Radial†	31097.6	28260.9	4921.0 ug/L	4921.0 ppb	14:02:27
3	Mg 279.077 IEC†	154.5	153.9	5062.4 ug/L	5062.4 ppb	14:02:47
3	Na 589.592 Radial†	29781.2	31052.4	10120 ug/L	10120 ppb	14:02:27
3	Sr 421.552†	75917.4	76212.1	499.52 ug/L	499.52 ppb	14:02:27
3	Sc 361.383	848346.5	848346.5	102.60 %		14:03:56
3	Y 371.029	669664.9	669664.9	100.34 %		14:03:56
3	Ag 328.068†	105576.4	102606.9	498.74 ug/L	498.74 ppb	14:04:01
3	As 188.979†	1129.5	1131.6	492.21 ug/L	492.21 ppb	14:04:21
3	B 249.677†	21029.4	21092.1	499.97 ug/L	499.97 ppb	14:04:01
3	Ba 233.527†	64099.3	62487.0	499.35 ug/L	499.35 ppb	14:04:01
3	Be 313.107†	1365918.5	1335044.1	488.71 ug/L	488.71 ppb	14:03:56
3	Cd 226.502†	43359.1	42477.7	495.74 ug/L	495.74 ppb	14:04:01
3	Co 228.616†	24918.7	24371.3	501.10 ug/L	501.10 ppb	14:04:01
3	Cr 267.716†	42853.5	41702.1	496.20 ug/L	496.20 ppb	14:04:01
3	Cu 324.752†	171667.7	162601.5	499.83 ug/L	499.83 ppb	14:04:01
3	Mn 257.610†	453970.9	442009.9	495.56 ug/L	495.56 ppb	14:03:56
3	Mo 202.031†	6663.4	6482.9	488.83 ug/L	488.83 ppb	14:04:21
3	Ni 231.604†	19993.8	19410.7	497.18 ug/L	497.18 ppb	14:04:01
3	P 214.914†	4508.9	4147.8	2343.9 ug/L	2343.9 ppb	14:04:21
3	Pb 220.353†	4026.4	3991.6	490.92 ug/L	490.92 ppb	14:04:21
3	S 181.975 Axial†	776.3	708.8	971.74 ug/L	971.74 ppb	14:04:21
3	Sb 206.836†	1488.6	1415.8	509.93 ug/L	509.93 ppb	14:04:21
3	Se 196.026†	759.0	765.2	517.91 ug/L	517.91 ppb	14:04:21
3	Si 251.611†	78736.7	76212.4	2487.0 ug/L	2487.0 ppb	14:04:01
3	Sn 189.927†	2756.1	2676.8	484.95 ug/L	484.95 ppb	14:04:21
3	Ti 334.940†	314538.0	308147.2	497.34 ug/L	497.34 ppb	14:04:01
3	Tl 190.801†	1599.0	1592.8	497.19 ug/L	497.19 ppb	14:04:21
3	U 409.014†	13325.4	16600.1	519.53 ug/L	519.53 ppb	14:04:01
3	V 292.402†	66601.5	66505.9	503.04 ug/L	503.04 ppb	14:04:01
3	Zn 213.857†	54016.8	51920.9	491.94 ug/L	491.94 ppb	14:04:01
3	SiO2†	77875.1	75371.5	5245.7 ug/L	5245.7 ppb	14:04:37

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	851528.7	102.98 %	0.573			0.56%
Sc Radial	4887.9	99.3 %	0.96			0.97%
Y 371.029	672245.9	100.73 %	0.478			0.47%
Y RADIAL	5166.6	99.62 %	0.991			1.00%
Ag 328.068†	101853.2	495.11 ug/L	3.153	495.11 ppb	3.153	0.64%

QC value within limits for Ag 328.068 Recovery = 99.02%					
Al 396.153Radial†	5861.3	5059.1 ug/L	26.74	5059.1 ppb	26.74 0.53%
QC value within limits for Al 396.153Radial Recovery = 101.18%					
As 188.979†	1126.6	490.04 ug/L	2.350	490.04 ppb	2.350 0.48%
QC value within limits for As 188.979 Recovery = 98.01%					
B 249.677†	20840.3	493.98 ug/L	5.196	493.98 ppb	5.196 1.05%
QC value within limits for B 249.677 Recovery = 98.80%					
Ba 233.527†	62028.2	495.69 ug/L	3.190	495.69 ppb	3.190 0.64%
QC value within limits for Ba 233.527 Recovery = 99.14%					
Be 313.107†	1335334.5	488.80 ug/L	0.381	488.80 ppb	0.381 0.08%
QC value within limits for Be 313.107 Recovery = 97.76%					
Ca 317.933Radial†	3243.3	5083.5 ug/L	51.12	5083.5 ppb	51.12 1.01%
QC value within limits for Ca 317.933Radial Recovery = 101.67%					
Cd 226.502†	42191.2	492.39 ug/L	3.067	492.39 ppb	3.067 0.62%
QC value within limits for Cd 226.502 Recovery = 98.48%					
Co 228.616†	24161.7	496.80 ug/L	3.938	496.80 ppb	3.938 0.79%
QC value within limits for Co 228.616 Recovery = 99.36%					
Cr 267.716†	41366.6	492.21 ug/L	3.454	492.21 ppb	3.454 0.70%
QC value within limits for Cr 267.716 Recovery = 98.44%					
Cu 324.752†	161203.1	495.54 ug/L	3.719	495.54 ppb	3.719 0.75%
QC value within limits for Cu 324.752 Recovery = 99.11%					
Fe 238.204 Radial†	555.7	5077.8 ug/L	74.52	5077.8 ppb	74.52 1.47%
QC value within limits for Fe 238.204 Radial Recovery = 101.56%					
K 766.490 Radial†	28323.0	4931.8 ug/L	33.38	4931.8 ppb	33.38 0.68%
QC value within limits for K 766.490 Radial Recovery = 98.64%					
Mg 279.077 IEC†	155.1	5100.4 ug/L	33.18	5100.4 ppb	33.18 0.65%
QC value within limits for Mg 279.077 IEC Recovery = 102.01%					
Mn 257.610†	441525.3	495.02 ug/L	0.934	495.02 ppb	0.934 0.19%
QC value within limits for Mn 257.610 Recovery = 99.00%					
Mo 202.031†	6474.0	488.17 ug/L	0.579	488.17 ppb	0.579 0.12%
QC value within limits for Mo 202.031 Recovery = 97.63%					
Na 589.592 Radial†	31121.0	10142 ug/L	39.2	10142 ppb	39.2 0.39%
QC value within limits for Na 589.592 Radial Recovery = 101.42%					
Ni 231.604†	19242.7	492.88 ug/L	4.252	492.88 ppb	4.252 0.86%
QC value within limits for Ni 231.604 Recovery = 98.58%					
P 214.914†	4147.2	2344.4 ug/L	0.45	2344.4 ppb	0.45 0.02%
QC value within limits for P 214.914 Recovery = 93.78%					
Pb 220.353†	3982.5	489.80 ug/L	1.244	489.80 ppb	1.244 0.25%
QC value within limits for Pb 220.353 Recovery = 97.96%					
S 181.975 Axial†	709.8	973.07 ug/L	5.181	973.07 ppb	5.181 0.53%
QC value within limits for S 181.975 Axial Recovery = 97.31%					
Sb 206.836†	1413.5	509.14 ug/L	1.567	509.14 ppb	1.567 0.31%
QC value within limits for Sb 206.836 Recovery = 101.83%					
Se 196.026†	758.6	513.72 ug/L	3.791	513.72 ppb	3.791 0.74%
QC value within limits for Se 196.026 Recovery = 102.74%					
Si 251.611†	75562.4	2465.7 ug/L	19.15	2465.7 ppb	19.15 0.78%
QC value within limits for Si 251.611 Recovery = 98.63%					
Sn 189.927†	2684.9	486.41 ug/L	1.272	486.41 ppb	1.272 0.26%
QC value within limits for Sn 189.927 Recovery = 97.28%					
Sr 421.552†	76203.4	499.47 ug/L	1.974	499.47 ppb	1.974 0.40%
QC value within limits for Sr 421.552 Recovery = 99.89%					
Ti 334.940†	305639.2	493.30 ug/L	3.532	493.30 ppb	3.532 0.72%
QC value within limits for Ti 334.940 Recovery = 98.66%					
Tl 190.801†	1588.2	495.74 ug/L	1.714	495.74 ppb	1.714 0.35%
QC value within limits for Tl 190.801 Recovery = 99.15%					
U 409.014†	16302.9	510.21 ug/L	9.034	510.21 ppb	9.034 1.77%
QC value within limits for U 409.014 Recovery = 102.04%					
V 292.402†	66050.5	499.62 ug/L	2.973	499.62 ppb	2.973 0.60%
QC value within limits for V 292.402 Recovery = 99.92%					
Zn 213.857†	51506.5	488.01 ug/L	3.556	488.01 ppb	3.556 0.73%
QC value within limits for Zn 213.857 Recovery = 97.60%					
SiO2†	75678.0	5267.1 ug/L	40.19	5267.1 ppb	40.19 0.76%
QC value within limits for SiO2 Recovery = 98.50%					

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/12/2010 14:06:47

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4949.2	4949.2	101 %		14:08:40
1	Y RADIAL	5233.5	5233.5	100.9 %		14:08:40
1	Al 396.153Radial†	-165.2	-1.1	-1.0255 ug/L	-1.0255 ppb	14:08:40
1	Ca 317.933Radial†	20.2	5.2	8.1109 ug/L	8.1109 ppb	14:09:00
1	Fe 238.204 Radial†	7.8	-3.7	-33.274 ug/L	-33.274 ppb	14:09:00
1	K 766.490 Radial†	3075.7	96.5	16.786 ug/L	16.786 ppb	14:08:40
1	Mg 279.077 IEC†	-1.4	-2.6	-85.385 ug/L	-85.385 ppb	14:09:00
1	Na 589.592 Radial†	-889.4	265.6	86.543 ug/L	86.543 ppb	14:08:40
1	Sr 421.552†	26.7	12.9	0.0845 ug/L	0.0845 ppb	14:08:40
1	Sc 361.383	836365.2	836365.2	101.15 %		14:09:57
1	Y 371.029	669212.8	669212.8	100.27 %		14:09:57
1	Ag 328.068†	295.2	-5.3	-0.0475 ug/L	-0.0475 ppb	14:09:57
1	As 188.979†	-27.7	3.2	1.3794 ug/L	1.3794 ppb	14:10:17
1	B 249.677†	-480.8	119.7	2.8550 ug/L	2.8550 ppb	14:10:17
1	Ba 233.527†	-10.5	-0.1	-0.0015 ug/L	-0.0015 ppb	14:10:17
1	Be 313.107†	-3744.4	-1.6	-0.0002 ug/L	-0.0002 ppb	14:09:57
1	Cd 226.502†	-194.7	23.6	0.2815 ug/L	0.2815 ppb	14:10:17
1	Co 228.616†	-66.3	17.8	0.3692 ug/L	0.3692 ppb	14:10:17
1	Cr 267.716†	76.9	9.4	0.1056 ug/L	0.1056 ppb	14:10:17
1	Cu 324.752†	4763.5	-11.5	-0.0446 ug/L	-0.0446 ppb	14:09:57
1	Mn 257.610†	490.1	14.7	0.0167 ug/L	0.0167 ppb	14:10:17
1	Mo 202.031†	26.9	14.7	1.1069 ug/L	1.1069 ppb	14:10:17
1	Ni 231.604†	85.5	7.5	0.1912 ug/L	0.1912 ppb	14:10:17
1	P 214.914†	242.2	-7.6	-4.3896 ug/L	-4.3896 ppb	14:10:17
1	Pb 220.353†	-75.0	-7.0	-0.8484 ug/L	-0.8484 ppb	14:10:17
1	S 181.975 Axial†	40.6	-7.6	-10.464 ug/L	-10.464 ppb	14:10:17
1	Sb 206.836†	41.7	6.1	2.1990 ug/L	2.1990 ppb	14:10:17
1	Se 196.026†	-29.6	-3.9	-2.6443 ug/L	-2.6443 ppb	14:10:17
1	Si 251.611†	563.0	25.2	0.8116 ug/L	0.8116 ppb	14:10:17
1	Sn 189.927†	23.4	13.6	2.4690 ug/L	2.4690 ppb	14:10:17
1	Ti 334.940†	-1498.5	89.5	0.1466 ug/L	0.1466 ppb	14:09:57
1	Tl 190.801†	-32.3	2.4	0.7290 ug/L	0.7290 ppb	14:10:17
1	U 409.014†	-3221.7	426.8	13.404 ug/L	13.404 ppb	14:09:57
1	V 292.402†	-1592.9	15.4	0.1594 ug/L	0.1594 ppb	14:09:57
1	Zn 213.857†	724.9	-11.9	-0.1101 ug/L	-0.1101 ppb	14:10:17
1	SiO2†	518.5	-19.8	-1.4107 ug/L	-1.4107 ppb	14:11:13
2	Sc Radial	4919.6	4919.6	99.9 %		14:09:05
2	Y RADIAL	5196.1	5196.1	100.2 %		14:09:05
2	Al 396.153Radial†	-160.2	2.9	2.4429 ug/L	2.4429 ppb	14:09:05
2	Ca 317.933Radial†	20.4	5.5	8.6142 ug/L	8.6142 ppb	14:09:25
2	Fe 238.204 Radial†	7.2	-4.2	-38.456 ug/L	-38.456 ppb	14:09:25
2	K 766.490 Radial†	2797.7	-163.3	-28.517 ug/L	-28.517 ppb	14:09:05
2	Mg 279.077 IEC†	1.7	0.5	16.761 ug/L	16.761 ppb	14:09:25
2	Na 589.592 Radial†	-874.1	275.5	89.797 ug/L	89.797 ppb	14:09:05
2	Sr 421.552†	6.9	-6.7	-0.0442 ug/L	-0.0442 ppb	14:09:05
2	Sc 361.383	843075.6	843075.6	101.96 %		14:10:22
2	Y 371.029	674836.9	674836.9	101.11 %		14:10:22
2	Ag 328.068†	227.2	-74.3	-0.3763 ug/L	-0.3763 ppb	14:10:22
2	As 188.979†	-28.5	2.7	1.1441 ug/L	1.1441 ppb	14:10:42
2	B 249.677†	-498.5	106.1	2.5322 ug/L	2.5322 ppb	14:10:42
2	Ba 233.527†	-9.3	1.1	0.0078 ug/L	0.0078 ppb	14:10:42
2	Be 313.107†	-3799.4	-26.1	-0.0090 ug/L	-0.0090 ppb	14:10:22
2	Cd 226.502†	-202.5	17.5	0.2089 ug/L	0.2089 ppb	14:10:42
2	Co 228.616†	-75.1	9.7	0.2021 ug/L	0.2021 ppb	14:10:42
2	Cr 267.716†	68.5	0.5	0.0033 ug/L	0.0033 ppb	14:10:42
2	Cu 324.752†	4844.1	30.1	0.0876 ug/L	0.0876 ppb	14:10:22
2	Mn 257.610†	518.9	39.1	0.0393 ug/L	0.0393 ppb	14:10:42
2	Mo 202.031†	27.6	15.2	1.1435 ug/L	1.1435 ppb	14:10:42
2	Ni 231.604†	87.8	9.1	0.2330 ug/L	0.2330 ppb	14:10:42

2	P 214.914†	245.4	-6.3	-3.6914 ug/L	-3.6914 ppb	14:10:42
2	Pb 220.353†	-48.7	19.4	2.3894 ug/L	2.3894 ppb	14:10:42
2	S 181.975 Axial†	41.6	-7.0	-9.6153 ug/L	-9.6153 ppb	14:10:42
2	Sb 206.836†	46.1	10.1	3.5617 ug/L	3.5617 ppb	14:10:42
2	Se 196.026†	-14.7	10.9	7.0217 ug/L	7.0217 ppb	14:10:42
2	Si 251.611†	550.8	8.9	0.2772 ug/L	0.2772 ppb	14:10:42
2	Sn 189.927†	15.7	6.0	1.0784 ug/L	1.0784 ppb	14:10:42
2	Ti 334.940†	-1445.6	153.1	0.2446 ug/L	0.2446 ppb	14:10:22
2	Tl 190.801†	-40.9	-5.8	-1.7950 ug/L	-1.7950 ppb	14:10:42
2	U 409.014†	-3512.0	167.5	5.2628 ug/L	5.2628 ppb	14:10:22
2	V 292.402†	-1617.8	3.5	0.0578 ug/L	0.0578 ppb	14:10:22
2	Zn 213.857†	732.3	-10.3	-0.0947 ug/L	-0.0947 ppb	14:10:42
2	SiO2†	577.1	33.6	2.3159 ug/L	2.3159 ppb	14:11:18
3	Sc Radial	4905.2	4905.2	99.6 %		14:09:30
3	Y RADIAL	5215.1	5215.1	100.6 %		14:09:30
3	Al 396.153Radial†	-166.4	-3.8	-3.3341 ug/L	-3.3341 ppb	14:09:30
3	Ca 317.933Radial†	16.8	1.9	3.0556 ug/L	3.0556 ppb	14:09:50
3	Fe 238.204 Radial†	10.8	-0.6	-5.6783 ug/L	-5.6783 ppb	14:09:50
3	K 766.490 Radial†	2859.6	-92.9	-16.238 ug/L	-16.238 ppb	14:09:30
3	Mg 279.077 IEC†	0.1	-1.1	-35.913 ug/L	-35.913 ppb	14:09:50
3	Na 589.592 Radial†	-862.1	285.0	92.884 ug/L	92.884 ppb	14:09:30
3	Sr 421.552†	12.2	-1.4	-0.0090 ug/L	-0.0090 ppb	14:09:30
3	Sc 361.383	838218.6	838218.6	101.37 %		14:10:48
3	Y 371.029	670494.0	670494.0	100.46 %		14:10:48
3	Ag 328.068†	249.4	-51.1	-0.2591 ug/L	-0.2591 ppb	14:10:48
3	As 188.979†	-20.4	10.5	4.5425 ug/L	4.5425 ppb	14:11:08
3	B 249.677†	-501.6	100.2	2.3854 ug/L	2.3854 ppb	14:11:08
3	Ba 233.527†	0.6	10.9	0.0873 ug/L	0.0873 ppb	14:11:08
3	Be 313.107†	-3816.0	-64.0	-0.0229 ug/L	-0.0229 ppb	14:10:48
3	Cd 226.502†	-206.1	12.8	0.1526 ug/L	0.1526 ppb	14:11:08
3	Co 228.616†	-64.4	19.8	0.4083 ug/L	0.4083 ppb	14:11:08
3	Cr 267.716†	83.6	15.8	0.1827 ug/L	0.1827 ppb	14:11:08
3	Cu 324.752†	4774.7	-10.9	-0.0416 ug/L	-0.0416 ppb	14:10:48
3	Mn 257.610†	477.2	0.9	0.0019 ug/L	0.0019 ppb	14:11:08
3	Mo 202.031†	20.7	8.5	0.6424 ug/L	0.6424 ppb	14:11:08
3	Ni 231.604†	80.1	1.9	0.0497 ug/L	0.0497 ppb	14:11:08
3	P 214.914†	238.2	-12.0	-7.0691 ug/L	-7.0691 ppb	14:11:08
3	Pb 220.353†	-52.3	15.5	1.9035 ug/L	1.9035 ppb	14:11:08
3	S 181.975 Axial†	48.2	-0.3	-0.3894 ug/L	-0.3894 ppb	14:11:08
3	Sb 206.836†	46.0	10.2	3.5900 ug/L	3.5900 ppb	14:11:08
3	Se 196.026†	-15.0	10.6	6.9332 ug/L	6.9332 ppb	14:11:08
3	Si 251.611†	523.9	-14.5	-0.4834 ug/L	-0.4834 ppb	14:11:08
3	Sn 189.927†	16.0	6.3	1.1357 ug/L	1.1357 ppb	14:11:08
3	Ti 334.940†	-1449.9	140.7	0.2241 ug/L	0.2241 ppb	14:10:48
3	Tl 190.801†	-36.9	-2.0	-0.6323 ug/L	-0.6323 ppb	14:11:08
3	U 409.014†	-3200.5	454.8	14.280 ug/L	14.280 ppb	14:10:48
3	V 292.402†	-1575.9	35.6	0.3018 ug/L	0.3018 ppb	14:10:48
3	Zn 213.857†	729.2	-9.3	-0.0880 ug/L	-0.0880 ppb	14:11:08
3	SiO2†	547.5	7.8	0.5239 ug/L	0.5239 ppb	14:11:23

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	839219.8	101.49 %	0.419			0.41%
Sc Radial	4924.7	100 %	0.5			0.46%
Y 371.029	671514.6	100.62 %	0.442			0.44%
Y RADIAL	5214.9	100.6 %	0.36			0.36%
Ag 328.068†	-43.6	-0.2276 ug/L	0.16660	-0.2276 ppb	0.16660	73.18%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-0.7	-0.6389 ug/L	2.90788	-0.6389 ppb	2.90788	455.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	5.5	2.3553 ug/L	1.89779	2.3553 ppb	1.89779	80.57%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	108.7	2.5908 ug/L	0.24025	2.5908 ppb	0.24025	9.27%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.0	0.0312 ug/L	0.04882	0.0312 ppb	0.04882	156.41%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-30.6	-0.0107 ug/L	0.01141	-0.0107 ppb	0.01141	106.75%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	4.2	6.5935 ug/L	3.07431	6.5935 ppb	3.07431	46.63%



QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd	226.502†	17.9	0.2143 ug/L	0.06461	0.2143 ppb	0.06461	30.14%		
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co	228.616†	15.8	0.3265 ug/L	0.10952	0.3265 ppb	0.10952	33.54%		
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr	267.716†	8.6	0.0972 ug/L	0.09000	0.0972 ppb	0.09000	92.57%		
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu	324.752†	2.6	0.0005 ug/L	0.07549	0.0005 ppb	0.07549	>999.9%		
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe	238.204 Radial†	-2.8	-25.803 ug/L	17.6200	-25.803 ppb	17.6200	68.29%		
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K	766.490 Radial†	-53.2	-9.3227 ug/L	23.42980	-9.3227 ppb	23.42980	251.32%		
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg	279.077 IEC†	-1.1	-34.846 ug/L	51.0817	-34.846 ppb	51.0817	146.59%		
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn	257.610†	18.2	0.0193 ug/L	0.01881	0.0193 ppb	0.01881	97.56%		
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo	202.031†	12.8	0.9643 ug/L	0.27931	0.9643 ppb	0.27931	28.97%		
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na	589.592 Radial†	275.4	89.741 ug/L	3.1704	89.741 ppb	3.1704	3.53%		
QC value within limits for Na 589.592 Radial Recovery = Not calculated									
Ni	231.604†	6.2	0.1579 ug/L	0.09607	0.1579 ppb	0.09607	60.82%		
QC value within limits for Ni 231.604 Recovery = Not calculated									
P	214.914†	-8.6	-5.0500 ug/L	1.78311	-5.0500 ppb	1.78311	35.31%		
QC value within limits for P 214.914 Recovery = Not calculated									
Pb	220.353†	9.3	1.1482 ug/L	1.74602	1.1482 ppb	1.74602	152.07%		
QC value within limits for Pb 220.353 Recovery = Not calculated									
S	181.975 Axial†	-5.0	-6.8229 ug/L	5.58768	-6.8229 ppb	5.58768	81.90%		
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb	206.836†	8.8	3.1169 ug/L	0.79507	3.1169 ppb	0.79507	25.51%		
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se	196.026†	5.9	3.7702 ug/L	5.55530	3.7702 ppb	5.55530	147.35%		
QC value within limits for Se 196.026 Recovery = Not calculated									
Si	251.611†	6.5	0.2018 ug/L	0.65080	0.2018 ppb	0.65080	322.52%		
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn	189.927†	8.6	1.5610 ug/L	0.78684	1.5610 ppb	0.78684	50.41%		
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr	421.552†	1.6	0.0104 ug/L	0.06653	0.0104 ppb	0.06653	638.83%		
QC value within limits for Sr 421.552 Recovery = Not calculated									
Ti	334.940†	127.7	0.2051 ug/L	0.05171	0.2051 ppb	0.05171	25.21%		
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl	190.801†	-1.8	-0.5661 ug/L	1.26327	-0.5661 ppb	1.26327	223.16%		
QC value within limits for Tl 190.801 Recovery = Not calculated									
U	409.014†	349.7	10.982 ug/L	4.9725	10.982 ppb	4.9725	45.28%		
QC value within limits for U 409.014 Recovery = Not calculated									
V	292.402†	18.2	0.1730 ug/L	0.12257	0.1730 ppb	0.12257	70.84%		
QC value within limits for V 292.402 Recovery = Not calculated									
Zn	213.857†	-10.5	-0.0976 ug/L	0.01133	-0.0976 ppb	0.01133	11.61%		
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†		7.2	0.4764 ug/L	1.86375	0.4764 ppb	1.86375	391.25%		
QC value within limits for SiO2 Recovery = Not calculated									

All analyte(s) passed QC.

Sequence No.: 13  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 2/12/2010 15:21:28  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4980.5	4980.5	101 %		15:23:20
1	Y RADIAL	5271.1	5271.1	101.6 %		15:23:20
1	Al 396.153Radial†	5629.5	5727.9	4944.5 ug/L	4944.5 ppb	15:23:20
1	Ca 317.933Radial†	3176.7	3125.2	4898.3 ug/L	4898.3 ppb	15:23:40
1	Fe 238.204 Radial†	545.5	527.8	4822.9 ug/L	4822.9 ppb	15:23:40
1	K 766.490 Radial†	30768.1	27450.7	4780.0 ug/L	4780.0 ppb	15:23:20
1	Mg 279.077 IEC†	151.8	148.9	4896.6 ug/L	4896.6 ppb	15:23:40
1	Na 589.592 Radial†	28979.7	29796.2	9710.5 ug/L	9710.5 ppb	15:23:20
1	Sr 421.552†	74772.9	73897.9	484.36 ug/L	484.36 ppb	15:23:20
1	Sc 361.383	873058.5	873058.5	105.59 %		15:24:38
1	Y 371.029	690044.4	690044.4	103.39 %		15:24:38
1	Ag 328.068†	103846.1	98055.4	476.62 ug/L	476.62 ppb	15:24:43
1	As 188.979†	1112.1	1083.9	471.45 ug/L	471.45 ppb	15:25:03
1	B 249.677†	20401.8	19917.5	472.10 ug/L	472.10 ppb	15:24:43
1	Ba 233.527†	62886.5	59570.0	476.05 ug/L	476.05 ppb	15:24:43
1	Be 313.107†	1365853.5	1297298.7	474.87 ug/L	474.87 ppb	15:24:38
1	Cd 226.502†	42532.8	40498.8	472.64 ug/L	472.64 ppb	15:24:43
1	Co 228.616†	24385.3	23178.7	476.58 ug/L	476.58 ppb	15:24:43
1	Cr 267.716†	42104.2	39810.2	473.69 ug/L	473.69 ppb	15:24:43
1	Cu 324.752†	168682.7	155038.2	476.58 ug/L	476.58 ppb	15:24:43
1	Mn 257.610†	451877.5	427502.8	479.29 ug/L	479.29 ppb	15:24:38
1	Mo 202.031†	6560.8	6201.9	467.64 ug/L	467.64 ppb	15:25:03
1	Ni 231.604†	19606.6	18492.3	473.66 ug/L	473.66 ppb	15:24:43
1	P 214.914†	4455.3	3972.6	2245.4 ug/L	2245.4 ppb	15:25:03
1	Pb 220.353†	3944.6	3803.1	467.76 ug/L	467.76 ppb	15:25:03
1	S 181.975 Axial†	760.9	672.9	922.40 ug/L	922.40 ppb	15:25:03
1	Sb 206.836†	1481.2	1367.7	492.50 ug/L	492.50 ppb	15:25:03
1	Se 196.026†	750.9	736.5	498.43 ug/L	498.43 ppb	15:25:03
1	Si 251.611†	77138.3	72526.3	2366.7 ug/L	2366.7 ppb	15:24:43
1	Sn 189.927†	2729.3	2575.4	466.58 ug/L	466.58 ppb	15:25:03
1	Ti 334.940†	308651.3	293894.2	474.34 ug/L	474.34 ppb	15:24:43
1	Tl 190.801†	1591.0	1541.1	481.04 ug/L	481.04 ppb	15:25:03
1	U 409.014†	12881.0	15811.5	494.85 ug/L	494.85 ppb	15:24:43
1	V 292.402†	65433.4	63562.1	480.78 ug/L	480.78 ppb	15:24:43
1	Zn 213.857†	52844.8	49320.6	467.29 ug/L	467.29 ppb	15:24:43
1	SiO2†	76986.1	72381.1	5037.6 ug/L	5037.6 ppb	15:26:10
2	Sc Radial	5037.0	5037.0	102 %		15:23:45
2	Y RADIAL	5276.2	5276.2	101.7 %		15:23:45
2	Al 396.153Radial†	5614.6	5650.9	4877.2 ug/L	4877.2 ppb	15:23:45
2	Ca 317.933Radial†	3187.8	3100.8	4860.1 ug/L	4860.1 ppb	15:24:05
2	Fe 238.204 Radial†	546.1	522.3	4773.3 ug/L	4773.3 ppb	15:24:05
2	K 766.490 Radial†	30804.6	27145.0	4726.7 ug/L	4726.7 ppb	15:23:45
2	Mg 279.077 IEC†	151.9	147.3	4845.1 ug/L	4845.1 ppb	15:24:05
2	Na 589.592 Radial†	28964.6	29459.8	9600.9 ug/L	9600.9 ppb	15:23:45
2	Sr 421.552†	74916.9	73209.1	479.84 ug/L	479.84 ppb	15:23:45
2	Sc 361.383	860802.6	860802.6	104.10 %		15:25:09
2	Y 371.029	681469.1	681469.1	102.11 %		15:25:09
2	Ag 328.068†	105443.8	100990.5	490.83 ug/L	490.83 ppb	15:25:14
2	As 188.979†	1116.5	1103.2	479.85 ug/L	479.85 ppb	15:25:34
2	B 249.677†	20765.5	20542.0	486.94 ug/L	486.94 ppb	15:25:14
2	Ba 233.527†	63610.4	61113.4	488.38 ug/L	488.38 ppb	15:25:14
2	Be 313.107†	1354937.3	1305230.8	477.80 ug/L	477.80 ppb	15:25:09
2	Cd 226.502†	43083.0	41600.9	485.52 ug/L	485.52 ppb	15:25:14
2	Co 228.616†	24717.5	23826.6	489.89 ug/L	489.89 ppb	15:25:14
2	Cr 267.716†	42672.6	40924.0	486.94 ug/L	486.94 ppb	15:25:14
2	Cu 324.752†	171488.9	160008.5	491.85 ug/L	491.85 ppb	15:25:14
2	Mn 257.610†	447188.7	429092.2	481.07 ug/L	481.07 ppb	15:25:09
2	Mo 202.031†	6584.0	6312.6	475.98 ug/L	475.98 ppb	15:25:34
2	Ni 231.604†	19888.6	19027.7	487.37 ug/L	487.37 ppb	15:25:14

2	P 214.914†	4427.2	4005.6	2261.8 ug/L	2261.8 ppb	15:25:34
2	Pb 220.353†	3947.1	3858.7	474.58 ug/L	474.58 ppb	15:25:34
2	S 181.975 Axial†	762.0	684.2	937.95 ug/L	937.95 ppb	15:25:34
2	Sb 206.836†	1479.6	1386.2	499.15 ug/L	499.15 ppb	15:25:34
2	Se 196.026†	738.5	734.8	497.16 ug/L	497.16 ppb	15:25:34
2	Si 251.611†	78335.3	74716.3	2438.2 ug/L	2438.2 ppb	15:25:14
2	Sn 189.927†	2714.7	2598.2	470.70 ug/L	470.70 ppb	15:25:34
2	Ti 334.940†	313346.1	302566.0	488.33 ug/L	488.33 ppb	15:25:14
2	Tl 190.801†	1552.7	1525.8	476.33 ug/L	476.33 ppb	15:25:34
2	U 409.014†	12950.4	16051.9	502.37 ug/L	502.37 ppb	15:25:14
2	V 292.402†	66510.7	65479.3	495.21 ug/L	495.21 ppb	15:25:14
2	Zn 213.857†	53627.0	50784.6	481.19 ug/L	481.19 ppb	15:25:14
2	SiO2†	77346.1	73765.1	5133.9 ug/L	5133.9 ppb	15:26:15
3	Sc Radial	4908.7	4908.7	99.7 %		15:24:10
3	Y RADIAL	5190.7	5190.7	100.1 %		15:24:10
3	Al 396.153Radial†	5560.7	5740.3	4955.0 ug/L	4955.0 ppb	15:24:10
3	Ca 317.933Radial†	3150.0	3144.3	4928.3 ug/L	4928.3 ppb	15:24:30
3	Fe 238.204 Radial†	534.5	524.7	4794.6 ug/L	4794.6 ppb	15:24:30
3	K 766.490 Radial†	30671.1	27798.0	4840.5 ug/L	4840.5 ppb	15:24:10
3	Mg 279.077 IEC†	151.3	150.5	4951.8 ug/L	4951.8 ppb	15:24:30
3	Na 589.592 Radial†	28640.1	29874.2	9736.0 ug/L	9736.0 ppb	15:24:10
3	Sr 421.552†	73851.1	74053.8	485.38 ug/L	485.38 ppb	15:24:10
3	Sc 361.383	871316.0	871316.0	105.37 %		15:25:40
3	Y 371.029	689259.4	689259.4	103.27 %		15:25:40
3	Ag 328.068†	103987.1	98385.9	478.21 ug/L	478.21 ppb	15:25:45
3	As 188.979†	1114.4	1088.2	473.32 ug/L	473.32 ppb	15:26:05
3	B 249.677†	20572.0	20117.7	476.87 ug/L	476.87 ppb	15:25:45
3	Ba 233.527†	63014.9	59811.0	477.97 ug/L	477.97 ppb	15:25:45
3	Be 313.107†	1365804.9	1299839.5	475.80 ug/L	475.80 ppb	15:25:40
3	Cd 226.502†	42659.8	40699.9	474.99 ug/L	474.99 ppb	15:25:45
3	Co 228.616†	24496.2	23330.0	479.70 ug/L	479.70 ppb	15:25:45
3	Cr 267.716†	42119.9	39904.8	474.82 ug/L	474.82 ppb	15:25:45
3	Cu 324.752†	168941.4	155603.3	478.32 ug/L	478.32 ppb	15:25:45
3	Mn 257.610†	450526.8	427076.9	478.81 ug/L	478.81 ppb	15:25:40
3	Mo 202.031†	6602.9	6254.2	471.58 ug/L	471.58 ppb	15:26:05
3	Ni 231.604†	19670.3	18590.0	476.16 ug/L	476.16 ppb	15:25:45
3	P 214.914†	4453.9	3979.7	2249.2 ug/L	2249.2 ppb	15:26:05
3	Pb 220.353†	3969.5	3834.2	471.59 ug/L	471.59 ppb	15:26:05
3	S 181.975 Axial†	764.4	677.6	928.88 ug/L	928.88 ppb	15:26:05
3	Sb 206.836†	1465.8	1355.9	488.49 ug/L	488.49 ppb	15:26:05
3	Se 196.026†	741.9	729.4	493.71 ug/L	493.71 ppb	15:26:05
3	Si 251.611†	77275.8	72802.8	2375.7 ug/L	2375.7 ppb	15:25:45
3	Sn 189.927†	2727.2	2578.6	467.17 ug/L	467.17 ppb	15:26:05
3	Ti 334.940†	309056.5	294863.4	475.91 ug/L	475.91 ppb	15:25:45
3	Tl 190.801†	1566.2	1520.6	474.67 ug/L	474.67 ppb	15:26:05
3	U 409.014†	12804.6	15763.4	493.34 ug/L	493.34 ppb	15:25:45
3	V 292.402†	65547.3	63794.1	482.57 ug/L	482.57 ppb	15:25:45
3	Zn 213.857†	52992.9	49561.3	469.58 ug/L	469.58 ppb	15:25:45
3	SiO2†	77217.2	72746.2	5063.0 ug/L	5063.0 ppb	15:26:21

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	868392.4	105.02 %	0.802			0.76%
Sc Radial	4975.4	101 %	1.3			1.29%
Y 371.029	686924.3	102.92 %	0.710			0.69%
Y RADIAL	5246.0	101.2 %	0.93			0.91%
Ag 328.068†	99143.9	481.89 ug/L	7.785	481.89 ppb	7.785	1.62%
QC value within limits for Ag 328.068 Recovery = 96.38%						
Al 396.153Radial†	5706.4	4925.6 ug/L	42.17	4925.6 ppb	42.17	0.86%
QC value within limits for Al 396.153Radial Recovery = 98.51%						
As 188.979†	1091.8	474.87 ug/L	4.411	474.87 ppb	4.411	0.93%
QC value within limits for As 188.979 Recovery = 94.97%						
B 249.677†	20192.4	478.64 ug/L	7.577	478.64 ppb	7.577	1.58%
QC value within limits for B 249.677 Recovery = 95.73%						
Ba 233.527†	60164.8	480.80 ug/L	6.635	480.80 ppb	6.635	1.38%
QC value within limits for Ba 233.527 Recovery = 96.16%						
Be 313.107†	1300789.7	476.15 ug/L	1.496	476.15 ppb	1.496	0.31%
QC value within limits for Be 313.107 Recovery = 95.23%						
Ca 317.933Radial†	3123.4	4895.6 ug/L	34.19	4895.6 ppb	34.19	0.70%

QC value within limits for Ca 317.933 Radial Recovery = 97.91%									
Cd	226.502†	40933.2	477.72 ug/L	6.859	477.72 ppb	6.859	1.44%		
QC value within limits for Cd 226.502 Recovery = 95.54%									
Co	228.616†	23445.1	482.06 ug/L	6.962	482.06 ppb	6.962	1.44%		
QC value within limits for Co 228.616 Recovery = 96.41%									
Cr	267.716†	40213.0	478.48 ug/L	7.348	478.48 ppb	7.348	1.54%		
QC value within limits for Cr 267.716 Recovery = 95.70%									
Cu	324.752†	156883.3	482.25 ug/L	8.361	482.25 ppb	8.361	1.73%		
QC value within limits for Cu 324.752 Recovery = 96.45%									
Fe	238.204 Radial†	524.9	4796.9 ug/L	24.85	4796.9 ppb	24.85	0.52%		
QC value within limits for Fe 238.204 Radial Recovery = 95.94%									
K	766.490 Radial†	27464.6	4782.4 ug/L	56.93	4782.4 ppb	56.93	1.19%		
QC value within limits for K 766.490 Radial Recovery = 95.65%									
Mg	279.077 IEC†	148.9	4897.8 ug/L	53.34	4897.8 ppb	53.34	1.09%		
QC value within limits for Mg 279.077 IEC Recovery = 97.96%									
Mn	257.610†	427890.6	479.72 ug/L	1.191	479.72 ppb	1.191	0.25%		
QC value within limits for Mn 257.610 Recovery = 95.94%									
Mo	202.031†	6256.2	471.74 ug/L	4.171	471.74 ppb	4.171	0.88%		
QC value within limits for Mo 202.031 Recovery = 94.35%									
Na	589.592 Radial†	29710.1	9682.5 ug/L	71.77	9682.5 ppb	71.77	0.74%		
QC value within limits for Na 589.592 Radial Recovery = 96.82%									
Ni	231.604†	18703.3	479.06 ug/L	7.303	479.06 ppb	7.303	1.52%		
QC value within limits for Ni 231.604 Recovery = 95.81%									
P	214.914†	3986.0	2252.2 ug/L	8.62	2252.2 ppb	8.62	0.38%		
QC value within limits for P 214.914 Recovery = 90.09%									
Pb	220.353†	3832.0	471.31 ug/L	3.416	471.31 ppb	3.416	0.72%		
QC value within limits for Pb 220.353 Recovery = 94.26%									
S	181.975 Axial†	678.2	929.74 ug/L	7.808	929.74 ppb	7.808	0.84%		
QC value within limits for S 181.975 Axial Recovery = 92.97%									
Sb	206.836†	1370.0	493.38 ug/L	5.387	493.38 ppb	5.387	1.09%		
QC value within limits for Sb 206.836 Recovery = 98.68%									
Se	196.026†	733.6	496.43 ug/L	2.442	496.43 ppb	2.442	0.49%		
QC value within limits for Se 196.026 Recovery = 99.29%									
Si	251.611†	73348.5	2393.5 ug/L	38.96	2393.5 ppb	38.96	1.63%		
QC value within limits for Si 251.611 Recovery = 95.74%									
Sn	189.927†	2584.1	468.15 ug/L	2.229	468.15 ppb	2.229	0.48%		
QC value within limits for Sn 189.927 Recovery = 93.63%									
Sr	421.552†	73720.3	483.19 ug/L	2.946	483.19 ppb	2.946	0.61%		
QC value within limits for Sr 421.552 Recovery = 96.64%									
Ti	334.940†	297107.8	479.53 ug/L	7.666	479.53 ppb	7.666	1.60%		
QC value within limits for Ti 334.940 Recovery = 95.91%									
Tl	190.801†	1529.2	477.35 ug/L	3.302	477.35 ppb	3.302	0.69%		
QC value within limits for Tl 190.801 Recovery = 95.47%									
U	409.014†	15875.6	496.85 ug/L	4.839	496.85 ppb	4.839	0.97%		
QC value within limits for U 409.014 Recovery = 99.37%									
V	292.402†	64278.5	486.19 ug/L	7.867	486.19 ppb	7.867	1.62%		
QC value within limits for V 292.402 Recovery = 97.24%									
Zn	213.857†	49888.8	472.69 ug/L	7.453	472.69 ppb	7.453	1.58%		
QC value within limits for Zn 213.857 Recovery = 94.54%									
SiO2†		72964.1	5078.2 ug/L	49.94	5078.2 ppb	49.94	0.98%		
QC value within limits for SiO2 Recovery = 94.96%									
All analyte(s) passed QC.									

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/12/2010 15:28:33

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5125.4	5125.4	104 %		15:30:25
1	Y RADIAL	5450.9	5450.9	105.1 %		15:30:25
1	Al 396.153Radial†	-181.1	-10.7	-9.3312 ug/L	-9.3312 ppb	15:30:25
1	Ca 317.933Radial†	16.3	0.7	1.0577 ug/L	1.0577 ppb	15:30:45
1	Fe 238.204 Radial†	11.2	-0.7	-6.4520 ug/L	-6.4520 ppb	15:30:45
1	K 766.490 Radial†	2916.2	-161.9	-28.264 ug/L	-28.264 ppb	15:30:25
1	Mg 279.077 IEC†	-0.4	-1.5	-50.787 ug/L	-50.787 ppb	15:30:45
1	Na 589.592 Radial†	-964.9	223.5	72.823 ug/L	72.823 ppb	15:30:25
1	Sr 421.552†	-0.3	-13.9	-0.0913 ug/L	-0.0913 ppb	15:30:25
1	Sc 361.383	844328.5	844328.5	102.11 %		15:31:42
1	Y 371.029	674532.4	674532.4	101.07 %		15:31:42
1	Ag 328.068†	317.3	13.6	0.0576 ug/L	0.0576 ppb	15:31:42
1	As 188.979†	-27.4	3.8	1.6321 ug/L	1.6321 ppb	15:32:02
1	B 249.677†	-473.8	131.0	3.1205 ug/L	3.1205 ppb	15:32:02
1	Ba 233.527†	-10.9	-0.4	-0.0024 ug/L	-0.0024 ppb	15:32:02
1	Be 313.107†	-3748.2	29.6	0.0109 ug/L	0.0109 ppb	15:31:42
1	Cd 226.502†	-218.8	1.8	0.0238 ug/L	0.0238 ppb	15:32:02
1	Co 228.616†	-72.0	12.8	0.2648 ug/L	0.2648 ppb	15:32:02
1	Cr 267.716†	56.4	-11.4	-0.1387 ug/L	-0.1387 ppb	15:32:02
1	Cu 324.752†	4772.2	-47.4	-0.1514 ug/L	-0.1514 ppb	15:31:42
1	Mn 257.610†	478.3	-1.4	-0.0002 ug/L	-0.0002 ppb	15:32:02
1	Mo 202.031†	19.3	7.0	0.5283 ug/L	0.5283 ppb	15:32:02
1	Ni 231.604†	85.4	6.6	0.1699 ug/L	0.1699 ppb	15:32:02
1	P 214.914†	231.5	-20.4	-11.944 ug/L	-11.944 ppb	15:32:02
1	Pb 220.353†	-68.7	-0.1	-0.0129 ug/L	-0.0129 ppb	15:32:02
1	S 181.975 Axial†	46.6	-2.2	-3.0089 ug/L	-3.0089 ppb	15:32:02
1	Sb 206.836†	44.4	8.4	2.9527 ug/L	2.9527 ppb	15:32:02
1	Se 196.026†	-22.1	3.7	2.4220 ug/L	2.4220 ppb	15:32:02
1	Si 251.611†	531.5	-10.8	-0.3604 ug/L	-0.3604 ppb	15:32:02
1	Sn 189.927†	15.5	5.7	1.0274 ug/L	1.0274 ppb	15:32:02
1	Ti 334.940†	-1584.6	19.1	0.0308 ug/L	0.0308 ppb	15:31:42
1	Tl 190.801†	-23.4	11.4	3.5203 ug/L	3.5203 ppb	15:32:02
1	U 409.014†	-3365.8	315.7	9.9148 ug/L	9.9148 ppb	15:31:42
1	V 292.402†	-1555.3	67.0	0.5268 ug/L	0.5268 ppb	15:31:42
1	Zn 213.857†	719.4	-24.0	-0.2298 ug/L	-0.2298 ppb	15:32:02
1	SiO2†	587.0	42.5	2.9538 ug/L	2.9538 ppb	15:32:58
2	Sc Radial	4887.1	4887.1	99.3 %		15:30:50
2	Y RADIAL	5218.8	5218.8	100.6 %		15:30:50
2	Al 396.153Radial†	-160.8	1.3	1.1508 ug/L	1.1508 ppb	15:30:50
2	Ca 317.933Radial†	13.2	-1.7	-2.6138 ug/L	-2.6138 ppb	15:31:10
2	Fe 238.204 Radial†	10.7	-0.6	-5.4678 ug/L	-5.4678 ppb	15:31:10
2	K 766.490 Radial†	3068.5	128.1	22.309 ug/L	22.309 ppb	15:30:50
2	Mg 279.077 IEC†	0.9	-0.3	-8.7097 ug/L	-8.7097 ppb	15:31:10
2	Na 589.592 Radial†	-925.6	217.9	71.002 ug/L	71.002 ppb	15:30:50
2	Sr 421.552†	53.9	40.6	0.2662 ug/L	0.2662 ppb	15:30:50
2	Sc 361.383	834505.4	834505.4	100.92 %		15:32:07
2	Y 371.029	668543.8	668543.8	100.17 %		15:32:07
2	Ag 328.068†	368.0	67.5	0.3144 ug/L	0.3144 ppb	15:32:07
2	As 188.979†	-27.3	3.6	1.5677 ug/L	1.5677 ppb	15:32:27
2	B 249.677†	-501.3	98.3	2.3419 ug/L	2.3419 ppb	15:32:27
2	Ba 233.527†	-12.7	-2.3	-0.0182 ug/L	-0.0182 ppb	15:32:27
2	Be 313.107†	-3699.8	34.4	0.0132 ug/L	0.0132 ppb	15:32:07
2	Cd 226.502†	-203.1	14.8	0.1765 ug/L	0.1765 ppb	15:32:27
2	Co 228.616†	-83.2	0.9	0.0161 ug/L	0.0161 ppb	15:32:27
2	Cr 267.716†	83.0	15.6	0.1809 ug/L	0.1809 ppb	15:32:27
2	Cu 324.752†	4812.1	47.1	0.1373 ug/L	0.1373 ppb	15:32:07
2	Mn 257.610†	482.5	8.2	0.0090 ug/L	0.0090 ppb	15:32:27
2	Mo 202.031†	6.1	-5.8	-0.4376 ug/L	-0.4376 ppb	15:32:27
2	Ni 231.604†	114.6	36.5	0.9355 ug/L	0.9355 ppb	15:32:27

2	P 214.914†	235.7	-13.5	-7.9629 ug/L	-7.9629 ppb	15:32:27
2	Pb 220.353†	-65.6	2.2	0.2652 ug/L	0.2652 ppb	15:32:27
2	S 181.975 Axial†	33.8	-14.3	-19.594 ug/L	-19.594 ppb	15:32:27
2	Sb 206.836†	40.5	5.0	1.7346 ug/L	1.7346 ppb	15:32:27
2	Se 196.026†	-32.0	-6.3	-4.1579 ug/L	-4.1579 ppb	15:32:27
2	Si 251.611†	521.1	-15.0	-0.4850 ug/L	-0.4850 ppb	15:32:27
2	Sn 189.927†	10.0	0.4	0.0756 ug/L	0.0756 ppb	15:32:27
2	Ti 334.940†	-1399.7	184.0	0.2916 ug/L	0.2916 ppb	15:32:07
2	Tl 190.801†	-40.6	-5.9	-1.8263 ug/L	-1.8263 ppb	15:32:27
2	U 409.014†	-3223.6	417.8	13.120 ug/L	13.120 ppb	15:32:07
2	V 292.402†	-1580.1	24.5	0.2023 ug/L	0.2023 ppb	15:32:07
2	Zn 213.857†	723.7	-11.5	-0.1155 ug/L	-0.1155 ppb	15:32:27
2	SiO2†	510.4	-26.6	-1.8448 ug/L	-1.8448 ppb	15:33:03
3	Sc Radial	4873.9	4873.9	99.0 %		15:31:15
3	Y RADIAL	5149.9	5149.9	99.30 %		15:31:15
3	Al 396.153Radial†	-164.2	-2.6	-2.3226 ug/L	-2.3226 ppb	15:31:15
3	Ca 317.933Radial†	15.9	1.1	1.7506 ug/L	1.7506 ppb	15:31:35
3	Fe 238.204 Radial†	9.9	-1.4	-12.846 ug/L	-12.846 ppb	15:31:35
3	K 766.490 Radial†	2921.2	-12.2	-2.1673 ug/L	-2.1673 ppb	15:31:15
3	Mg 279.077 IEC†	2.3	1.1	35.332 ug/L	35.332 ppb	15:31:35
3	Na 589.592 Radial†	-900.9	240.2	78.286 ug/L	78.286 ppb	15:31:15
3	Sr 421.552†	32.9	19.6	0.1286 ug/L	0.1286 ppb	15:31:15
3	Sc 361.383	836896.0	836896.0	101.21 %		15:32:32
3	Y 371.029	670427.0	670427.0	100.45 %		15:32:32
3	Ag 328.068†	274.5	-25.9	-0.1412 ug/L	-0.1412 ppb	15:32:32
3	As 188.979†	-25.7	5.3	2.2721 ug/L	2.2721 ppb	15:32:52
3	B 249.677†	-509.3	91.8	2.1879 ug/L	2.1879 ppb	15:32:52
3	Ba 233.527†	-6.6	3.8	0.0309 ug/L	0.0309 ppb	15:32:52
3	Be 313.107†	-3757.3	-12.0	-0.0042 ug/L	-0.0042 ppb	15:32:32
3	Cd 226.502†	-210.5	8.0	0.0985 ug/L	0.0985 ppb	15:32:52
3	Co 228.616†	-68.7	15.5	0.3209 ug/L	0.3209 ppb	15:32:52
3	Cr 267.716†	73.1	5.6	0.0601 ug/L	0.0601 ppb	15:32:52
3	Cu 324.752†	4829.2	50.4	0.1451 ug/L	0.1451 ppb	15:32:32
3	Mn 257.610†	476.2	0.6	-0.0020 ug/L	-0.0020 ppb	15:32:52
3	Mo 202.031†	28.3	16.1	1.2097 ug/L	1.2097 ppb	15:32:52
3	Ni 231.604†	84.1	6.1	0.1555 ug/L	0.1555 ppb	15:32:52
3	P 214.914†	248.8	-1.2	-0.7109 ug/L	-0.7109 ppb	15:32:52
3	Pb 220.353†	-65.4	2.6	0.3175 ug/L	0.3175 ppb	15:32:52
3	S 181.975 Axial†	52.7	4.3	5.8366 ug/L	5.8366 ppb	15:32:52
3	Sb 206.836†	50.5	14.8	5.1822 ug/L	5.1822 ppb	15:32:52
3	Se 196.026†	-21.3	4.3	2.8006 ug/L	2.8006 ppb	15:32:52
3	Si 251.611†	548.1	10.2	0.3198 ug/L	0.3198 ppb	15:32:52
3	Sn 189.927†	14.6	5.0	0.8953 ug/L	0.8953 ppb	15:32:52
3	Ti 334.940†	-1540.9	48.5	0.0684 ug/L	0.0684 ppb	15:32:32
3	Tl 190.801†	-34.3	0.4	0.1315 ug/L	0.1315 ppb	15:32:52
3	U 409.014†	-3125.1	524.3	16.464 ug/L	16.464 ppb	15:32:32
3	V 292.402†	-1545.8	62.9	0.5206 ug/L	0.5206 ppb	15:32:32
3	Zn 213.857†	709.9	-27.2	-0.2591 ug/L	-0.2591 ppb	15:32:52
3	SiO2†	579.4	40.1	2.7667 ug/L	2.7667 ppb	15:33:08

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	838576.6	101.42 %		0.620			0.61%
Sc Radial	4962.1	101 %		2.9			2.85%
Y 371.029	671167.7	100.56 %		0.459			0.46%
Y RADIAL	5273.2	101.7 %		3.04			2.99%
Ag 328.068†	18.4	0.0770 ug/L		0.22842	0.0770 ppb	0.22842	296.82%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-4.0	-3.5010 ug/L		5.33945	-3.5010 ppb	5.33945	152.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	4.2	1.8240 ug/L		0.38942	1.8240 ppb	0.38942	21.35%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	107.1	2.5501 ug/L		0.49994	2.5501 ppb	0.49994	19.60%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	0.4	0.0034 ug/L		0.02509	0.0034 ppb	0.02509	736.19%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	17.3	0.0066 ug/L		0.00946	0.0066 ppb	0.00946	142.62%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	0.0	0.0648 ug/L		2.34549	0.0648 ppb	2.34549	>999.9%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd	226.502†	8.2	0.0996 ug/L	0.07636	0.0996 ppb	0.07636	76.63%		
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co	228.616†	9.7	0.2006 ug/L	0.16224	0.2006 ppb	0.16224	80.86%		
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr	267.716†	3.3	0.0341 ug/L	0.16139	0.0341 ppb	0.16139	473.43%		
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu	324.752†	16.7	0.0437 ug/L	0.16900	0.0437 ppb	0.16900	387.00%		
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe	238.204 Radial†	-0.9	-8.2552 ug/L	4.00592	-8.2552 ppb	4.00592	48.53%		
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K	766.490 Radial†	-15.4	-2.7077 ug/L	25.29092	-2.7077 ppb	25.29092	934.05%		
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg	279.077 IEC†	-0.2	-8.0548 ug/L	43.06319	-8.0548 ppb	43.06319	534.63%		
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn	257.610†	2.5	0.0023 ug/L	0.00589	0.0023 ppb	0.00589	259.28%		
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo	202.031†	5.8	0.4335 ug/L	0.82776	0.4335 ppb	0.82776	190.96%		
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na	589.592 Radial†	227.2	74.037 ug/L	3.7908	74.037 ppb	3.7908	5.12%		
QC value within limits for Na 589.592 Radial Recovery = Not calculated									
Ni	231.604†	16.4	0.4203 ug/L	0.44627	0.4203 ppb	0.44627	106.18%		
QC value within limits for Ni 231.604 Recovery = Not calculated									
P	214.914†	-11.7	-6.8726 ug/L	5.69536	-6.8726 ppb	5.69536	82.87%		
QC value within limits for P 214.914 Recovery = Not calculated									
Pb	220.353†	1.5	0.1900 ug/L	0.17758	0.1900 ppb	0.17758	93.48%		
QC value within limits for Pb 220.353 Recovery = Not calculated									
S	181.975 Axial†	-4.1	-5.5888 ug/L	12.91008	-5.5888 ppb	12.91008	231.00%		
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb	206.836†	9.4	3.2898 ug/L	1.74836	3.2898 ppb	1.74836	53.14%		
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se	196.026†	0.6	0.3549 ug/L	3.91281	0.3549 ppb	3.91281	>999.9%		
QC value within limits for Se 196.026 Recovery = Not calculated									
Si	251.611†	-5.2	-0.1752 ug/L	0.43319	-0.1752 ppb	0.43319	247.27%		
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn	189.927†	3.7	0.6661 ug/L	0.51567	0.6661 ppb	0.51567	77.41%		
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr	421.552†	15.4	0.1011 ug/L	0.18031	0.1011 ppb	0.18031	178.27%		
QC value within limits for Sr 421.552 Recovery = Not calculated									
Ti	334.940†	83.9	0.1303 ug/L	0.14097	0.1303 ppb	0.14097	108.23%		
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl	190.801†	2.0	0.6085 ug/L	2.70502	0.6085 ppb	2.70502	444.56%		
QC value within limits for Tl 190.801 Recovery = Not calculated									
U	409.014†	419.3	13.166 ug/L	3.2748	13.166 ppb	3.2748	24.87%		
QC value within limits for U 409.014 Recovery = Not calculated									
V	292.402†	51.5	0.4166 ug/L	0.18561	0.4166 ppb	0.18561	44.55%		
QC value within limits for V 292.402 Recovery = Not calculated									
Zn	213.857†	-20.9	-0.2015 ug/L	0.07587	-0.2015 ppb	0.07587	37.66%		
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†		18.7	1.2919 ug/L	2.71805	1.2919 ppb	2.71805	210.39%		
QC value within limits for SiO2 Recovery = Not calculated									
All analyte(s) passed QC.									

Sequence No.: 25

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/12/2010 16:43:12

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Conc. Units	Sample	Analysis Time
1	Sc Radial	4977.2	4977.2	101 %				16:45:04
1	Y RADIAL	5276.8	5276.8	101.7 %				16:45:04
1	Al 396.153Radial†	5588.2	5690.7	4911.7 ug/L		4911.7 ppb		16:45:04
1	Ca 317.933Radial†	3204.9	3155.1	4945.2 ug/L		4945.2 ppb		16:45:24
1	Fe 238.204 Radial†	565.5	547.9	5007.1 ug/L		5007.1 ppb		16:45:24
1	K 766.490 Radial†	31174.5	27872.6	4853.2 ug/L		4853.2 ppb		16:45:04
1	Mg 279.077 IEC†	157.2	154.3	5075.0 ug/L		5075.0 ppb		16:45:24
1	Na 589.592 Radial†	31451.5	32259.8	10513 ug/L		10513 ppb		16:45:04
1	Sr 421.552†	77370.5	76515.8	501.52 ug/L		501.52 ppb		16:45:04
1	Sc 361.383	846846.5	846846.5	102.42 %				16:46:21
1	Y 371.029	669583.4	669583.4	100.33 %				16:46:21
1	Ag 328.068†	103747.0	101002.9	490.97 ug/L		490.97 ppb		16:46:26
1	As 188.979†	1104.5	1109.1	482.48 ug/L		482.48 ppb		16:46:46
1	B 249.677†	20356.0	20470.9	485.20 ug/L		485.20 ppb		16:46:26
1	Ba 233.527†	62913.8	61440.2	490.99 ug/L		490.99 ppb		16:46:26
1	Be 313.107†	1337428.6	1309584.3	479.39 ug/L		479.39 ppb		16:46:21
1	Cd 226.502†	42856.6	42061.9	490.88 ug/L		490.88 ppb		16:46:26
1	Co 228.616†	24551.1	24055.4	494.60 ug/L		494.60 ppb		16:46:26
1	Cr 267.716†	42187.7	41126.0	489.35 ug/L		489.35 ppb		16:46:26
1	Cu 324.752†	168312.3	159621.6	490.68 ug/L		490.68 ppb		16:46:26
1	Mn 257.610†	445639.6	434658.9	487.32 ug/L		487.32 ppb		16:46:21
1	Mo 202.031†	6518.3	6352.7	479.02 ug/L		479.02 ppb		16:46:46
1	Ni 231.604†	19660.0	19119.3	489.72 ug/L		489.72 ppb		16:46:26
1	P 214.914†	4433.3	4081.7	2306.7 ug/L		2306.7 ppb		16:46:46
1	Pb 220.353†	3954.9	3928.8	483.17 ug/L		483.17 ppb		16:46:46
1	S 181.975 Axial†	749.2	683.7	937.33 ug/L		937.33 ppb		16:46:46
1	Sb 206.836†	1474.2	1404.3	505.58 ug/L		505.58 ppb		16:46:46
1	Se 196.026†	742.3	750.2	507.96 ug/L		507.96 ppb		16:46:46
1	Si 251.611†	77235.0	74882.0	2443.6 ug/L		2443.6 ppb		16:46:26
1	Sn 189.927†	2699.1	2625.9	475.73 ug/L		475.73 ppb		16:46:46
1	Ti 334.940†	308989.6	303272.7	489.47 ug/L		489.47 ppb		16:46:26
1	Tl 190.801†	1561.5	1559.0	486.64 ug/L		486.64 ppb		16:46:46
1	U 409.014†	12691.5	16004.2	500.84 ug/L		500.84 ppb		16:46:26
1	V 292.402†	65509.2	65554.3	495.78 ug/L		495.78 ppb		16:46:26
1	Zn 213.857†	53088.4	51107.6	484.23 ug/L		484.23 ppb		16:46:26
1	SiO2†	76300.2	73968.3	5148.0 ug/L		5148.0 ppb		16:47:54
2	Sc Radial	4864.7	4864.7	98.8 %				16:45:29
2	Y RADIAL	5147.3	5147.3	99.25 %				16:45:29
2	Al 396.153Radial†	5443.4	5671.9	4895.4 ug/L		4895.4 ppb		16:45:29
2	Ca 317.933Radial†	3186.7	3210.0	5031.3 ug/L		5031.3 ppb		16:45:49
2	Fe 238.204 Radial†	560.7	556.0	5080.7 ug/L		5080.7 ppb		16:45:49
2	K 766.490 Radial†	30507.4	27910.5	4859.8 ug/L		4859.8 ppb		16:45:29
2	Mg 279.077 IEC†	155.0	155.7	5120.1 ug/L		5120.1 ppb		16:45:49
2	Na 589.592 Radial†	30531.0	32047.6	10444 ug/L		10444 ppb		16:45:29
2	Sr 421.552†	75255.7	76145.2	499.09 ug/L		499.09 ppb		16:45:29
2	Sc 361.383	844648.9	844648.9	102.15 %				16:46:52
2	Y 371.029	667910.1	667910.1	100.08 %				16:46:52
2	Ag 328.068†	103518.5	101042.8	491.18 ug/L		491.18 ppb		16:46:57
2	As 188.979†	1083.7	1091.6	474.93 ug/L		474.93 ppb		16:47:17
2	B 249.677†	20421.6	20586.8	487.95 ug/L		487.95 ppb		16:46:57
2	Ba 233.527†	62710.6	61401.1	490.68 ug/L		490.68 ppb		16:46:57
2	Be 313.107†	1330823.7	1306516.2	478.27 ug/L		478.27 ppb		16:46:52
2	Cd 226.502†	42599.0	41918.5	489.20 ug/L		489.20 ppb		16:46:57
2	Co 228.616†	24377.6	23948.0	492.39 ug/L		492.39 ppb		16:46:57
2	Cr 267.716†	41952.6	41003.1	487.89 ug/L		487.89 ppb		16:46:57
2	Cu 324.752†	167879.5	159625.4	490.69 ug/L		490.69 ppb		16:46:57
2	Mn 257.610†	442578.9	432794.7	485.23 ug/L		485.23 ppb		16:46:52
2	Mo 202.031†	6495.9	6347.4	478.63 ug/L		478.63 ppb		16:47:17
2	Ni 231.604†	19648.6	19158.1	490.71 ug/L		490.71 ppb		16:46:57



2	P 214.914†	4406.7	4066.9	2297.9 ug/L	2297.9 ppb	16:47:17
2	Pb 220.353†	3937.0	3921.3	482.25 ug/L	482.25 ppb	16:47:17
2	S 181.975 Axial†	760.3	696.5	954.87 ug/L	954.87 ppb	16:47:17
2	Sb 206.836†	1461.6	1395.7	502.57 ug/L	502.57 ppb	16:47:17
2	Se 196.026†	721.2	731.5	495.97 ug/L	495.97 ppb	16:47:17
2	Si 251.611†	76892.1	74742.6	2439.0 ug/L	2439.0 ppb	16:46:57
2	Sn 189.927†	2681.9	2616.0	473.94 ug/L	473.94 ppb	16:47:17
2	Ti 334.940†	308108.6	303195.2	489.35 ug/L	489.35 ppb	16:46:57
2	Tl 190.801†	1564.7	1566.1	488.85 ug/L	488.85 ppb	16:47:17
2	U 409.014†	12827.1	16169.1	506.01 ug/L	506.01 ppb	16:46:57
2	V 292.402†	65185.1	65403.4	494.65 ug/L	494.65 ppb	16:46:57
2	Zn 213.857†	52779.3	50939.9	482.61 ug/L	482.61 ppb	16:46:57
2	SiO2†	77414.6	75253.0	5237.7 ug/L	5237.7 ppb	16:47:59
3	Sc Radial	4929.4	4929.4	100 %		16:45:54
3	Y RADIAL	5240.5	5240.5	101.0 %		16:45:54
3	Al 396.153Radial†	5510.7	5666.9	4891.3 ug/L	4891.3 ppb	16:45:54
3	Ca 317.933Radial†	3200.5	3181.4	4986.4 ug/L	4986.4 ppb	16:46:14
3	Fe 238.204 Radial†	566.0	553.8	5060.5 ug/L	5060.5 ppb	16:46:14
3	K 766.490 Radial†	30907.1	27904.6	4858.8 ug/L	4858.8 ppb	16:45:54
3	Mg 279.077 IEC†	158.1	156.7	5155.1 ug/L	5155.1 ppb	16:46:14
3	Na 589.592 Radial†	31078.7	32189.2	10490 ug/L	10490 ppb	16:45:54
3	Sr 421.552†	76297.1	76186.0	499.35 ug/L	499.35 ppb	16:45:54
3	Sc 361.383	858549.7	858549.7	103.83 %		16:47:23
3	Y 371.029	679623.6	679623.6	101.83 %		16:47:23
3	Ag 328.068†	103030.3	98931.8	480.95 ug/L	480.95 ppb	16:47:28
3	As 188.979†	1098.2	1088.3	473.44 ug/L	473.44 ppb	16:47:48
3	B 249.677†	20209.8	20059.1	475.42 ug/L	475.42 ppb	16:47:28
3	Ba 233.527†	62407.0	60114.7	480.41 ug/L	480.41 ppb	16:47:28
3	Be 313.107†	1354836.5	1308548.9	478.99 ug/L	478.99 ppb	16:47:23
3	Cd 226.502†	42376.9	41029.5	478.81 ug/L	478.81 ppb	16:47:28
3	Co 228.616†	24253.0	23441.5	481.98 ug/L	481.98 ppb	16:47:28
3	Cr 267.716†	41817.5	40208.0	478.43 ug/L	478.43 ppb	16:47:28
3	Cu 324.752†	167449.1	156550.0	481.24 ug/L	481.24 ppb	16:47:28
3	Mn 257.610†	449358.6	432309.3	484.69 ug/L	484.69 ppb	16:47:23
3	Mo 202.031†	6512.6	6260.4	472.07 ug/L	472.07 ppb	16:47:48
3	Ni 231.604†	19395.1	18602.5	476.48 ug/L	476.48 ppb	16:47:28
3	P 214.914†	4425.9	4015.6	2269.6 ug/L	2269.6 ppb	16:47:48
3	Pb 220.353†	3945.4	3867.0	475.58 ug/L	475.58 ppb	16:47:48
3	S 181.975 Axial†	754.5	678.9	930.63 ug/L	930.63 ppb	16:47:48
3	Sb 206.836†	1470.1	1380.8	497.23 ug/L	497.23 ppb	16:47:48
3	Se 196.026†	731.9	730.3	495.14 ug/L	495.14 ppb	16:47:48
3	Si 251.611†	76630.1	73271.4	2391.0 ug/L	2391.0 ppb	16:47:28
3	Sn 189.927†	2727.8	2617.7	474.25 ug/L	474.25 ppb	16:47:48
3	Ti 334.940†	307140.0	297378.7	479.96 ug/L	479.96 ppb	16:47:28
3	Tl 190.801†	1558.7	1535.5	479.34 ug/L	479.34 ppb	16:47:48
3	U 409.014†	12700.5	15843.8	495.82 ug/L	495.82 ppb	16:47:28
3	V 292.402†	65009.5	64201.2	485.58 ug/L	485.58 ppb	16:47:28
3	Zn 213.857†	52536.4	49869.4	472.48 ug/L	472.48 ppb	16:47:28
3	SiO2†	76392.6	73041.7	5083.6 ug/L	5083.6 ppb	16:48:04

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	850015.0	102.80 %	0.904			0.88%
Sc Radial	4923.8	100 %	1.1			1.15%
Y 371.029	672372.4	100.74 %	0.949			0.94%
Y RADIAL	5221.6	100.7 %	1.29			1.28%
Ag 328.068†	100325.8	487.70 ug/L	5.847	487.70 ppb	5.847	1.20%
QC value within limits for Ag 328.068 Recovery = 97.54%						
Al 396.153Radial†	5676.5	4899.5 ug/L	10.76	4899.5 ppb	10.76	0.22%
QC value within limits for Al 396.153Radial Recovery = 97.99%						
As 188.979†	1096.3	476.95 ug/L	4.843	476.95 ppb	4.843	1.02%
QC value within limits for As 188.979 Recovery = 95.39%						
B 249.677†	20372.3	482.86 ug/L	6.585	482.86 ppb	6.585	1.36%
QC value within limits for B 249.677 Recovery = 96.57%						
Ba 233.527†	60985.4	487.36 ug/L	6.024	487.36 ppb	6.024	1.24%
QC value within limits for Ba 233.527 Recovery = 97.47%						
Be 313.107†	1308216.5	478.88 ug/L	0.568	478.88 ppb	0.568	0.12%
QC value within limits for Be 313.107 Recovery = 95.78%						
Ca 317.933Radial†	3182.2	4987.7 ug/L	43.07	4987.7 ppb	43.07	0.86%

QC value within limits for Ca 317.933 Radial Recovery = 99.75%

Cd 226.502†	41670.0	486.30 ug/L	6.536	486.30 ppb	6.536	1.34%
QC value within limits for Cd 226.502 Recovery = 97.26%						
Co 228.616†	23815.0	489.65 ug/L	6.738	489.65 ppb	6.738	1.38%
QC value within limits for Co 228.616 Recovery = 97.93%						
Cr 267.716†	40779.0	485.22 ug/L	5.929	485.22 ppb	5.929	1.22%
QC value within limits for Cr 267.716 Recovery = 97.04%						
Cu 324.752†	158599.0	487.54 ug/L	5.452	487.54 ppb	5.452	1.12%
QC value within limits for Cu 324.752 Recovery = 97.51%						
Fe 238.204 Radial†	552.6	5049.4 ug/L	38.05	5049.4 ppb	38.05	0.75%
QC value within limits for Fe 238.204 Radial Recovery = 100.99%						
K 766.490 Radial†	27895.9	4857.2 ug/L	3.55	4857.2 ppb	3.55	0.07%
QC value within limits for K 766.490 Radial Recovery = 97.14%						
Mg 279.077 IEC†	155.6	5116.7 ug/L	40.19	5116.7 ppb	40.19	0.79%
QC value within limits for Mg 279.077 IEC Recovery = 102.33%						
Mn 257.610†	433254.3	485.75 ug/L	1.388	485.75 ppb	1.388	0.29%
QC value within limits for Mn 257.610 Recovery = 97.15%						
Mo 202.031†	6320.2	476.57 ug/L	3.902	476.57 ppb	3.902	0.82%
QC value within limits for Mo 202.031 Recovery = 95.31%						
Na 589.592 Radial†	32165.5	10483 ug/L	35.2	10483 ppb	35.2	0.34%
QC value within limits for Na 589.592 Radial Recovery = 104.83%						
Ni 231.604†	18960.0	485.63 ug/L	7.946	485.63 ppb	7.946	1.64%
QC value within limits for Ni 231.604 Recovery = 97.13%						
P 214.914†	4054.7	2291.4 ug/L	19.39	2291.4 ppb	19.39	0.85%
QC value within limits for P 214.914 Recovery = 91.66%						
Pb 220.353†	3905.7	480.33 ug/L	4.142	480.33 ppb	4.142	0.86%
QC value within limits for Pb 220.353 Recovery = 96.07%						
S 181.975 Axial†	686.4	940.94 ug/L	12.513	940.94 ppb	12.513	1.33%
QC value within limits for S 181.975 Axial Recovery = 94.09%						
Sb 206.836†	1393.6	501.79 ug/L	4.229	501.79 ppb	4.229	0.84%
QC value within limits for Sb 206.836 Recovery = 100.36%						
Se 196.026†	737.3	499.69 ug/L	7.176	499.69 ppb	7.176	1.44%
QC value within limits for Se 196.026 Recovery = 99.94%						
Si 251.611†	74298.7	2424.5 ug/L	29.14	2424.5 ppb	29.14	1.20%
QC value within limits for Si 251.611 Recovery = 96.98%						
Sn 189.927†	2619.9	474.64 ug/L	0.957	474.64 ppb	0.957	0.20%
QC value within limits for Sn 189.927 Recovery = 94.93%						
Sr 421.552†	76282.3	499.99 ug/L	1.332	499.99 ppb	1.332	0.27%
QC value within limits for Sr 421.552 Recovery = 100.00%						
Ti 334.940†	301282.2	486.26 ug/L	5.457	486.26 ppb	5.457	1.12%
QC value within limits for Ti 334.940 Recovery = 97.25%						
Tl 190.801†	1553.5	484.94 ug/L	4.979	484.94 ppb	4.979	1.03%
QC value within limits for Tl 190.801 Recovery = 96.99%						
U 409.014†	16005.7	500.89 ug/L	5.095	500.89 ppb	5.095	1.02%
QC value within limits for U 409.014 Recovery = 100.18%						
V 292.402†	65052.9	492.00 ug/L	5.592	492.00 ppb	5.592	1.14%
QC value within limits for V 292.402 Recovery = 98.40%						
Zn 213.857†	50639.0	479.77 ug/L	6.369	479.77 ppb	6.369	1.33%
QC value within limits for Zn 213.857 Recovery = 95.95%						
SiO2†	74087.6	5156.4 ug/L	77.40	5156.4 ppb	77.40	1.50%
QC value within limits for SiO2 Recovery = 96.43%						

All analyte(s) passed QC.

Sequence No.: 26

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/12/2010 16:50:14

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4869.7	4869.7	98.9 %		16:52:06
1	Y RADIAL	5191.3	5191.3	100.1 %		16:52:06
1	Al 396.153Radial†	-159.7	1.8	1.5621 ug/L	1.5621 ppb	16:52:06
1	Ca 317.933Radial†	8.6	-6.3	-9.8519 ug/L	-9.8519 ppb	16:52:26
1	Fe 238.204 Radial†	11.4	0.1	0.8047 ug/L	0.8047 ppb	16:52:26
1	K 766.490 Radial†	2728.6	-204.5	-35.697 ug/L	-35.697 ppb	16:52:06
1	Mg 279.077 IEC†	1.4	0.2	8.0783 ug/L	8.0783 ppb	16:52:26
1	Na 589.592 Radial†	-779.5	362.2	118.04 ug/L	118.04 ppb	16:52:06
1	Sr 421.552†	19.3	5.8	0.0383 ug/L	0.0383 ppb	16:52:06
1	Sc 361.383	832586.2	832586.2	100.69 %		16:53:23
1	Y 371.029	664186.0	664186.0	99.518 %		16:53:23
1	Ag 328.068†	211.6	-87.0	-0.4339 ug/L	-0.4339 ppb	16:53:23
1	As 188.979†	-34.4	-3.6	-1.5312 ug/L	-1.5312 ppb	16:53:43
1	B 249.677†	-496.7	101.8	2.4224 ug/L	2.4224 ppb	16:53:43
1	Ba 233.527†	-14.3	-3.9	-0.0311 ug/L	-0.0311 ppb	16:53:43
1	Be 313.107†	-3922.9	-195.6	-0.0709 ug/L	-0.0709 ppb	16:53:23
1	Cd 226.502†	-209.3	8.2	0.0992 ug/L	0.0992 ppb	16:53:43
1	Co 228.616†	-75.6	8.2	0.1706 ug/L	0.1706 ppb	16:53:43
1	Cr 267.716†	76.7	9.5	0.1064 ug/L	0.1064 ppb	16:53:43
1	Cu 324.752†	4707.2	-46.0	-0.1512 ug/L	-0.1512 ppb	16:53:23
1	Mn 257.610†	455.5	-17.5	-0.0198 ug/L	-0.0198 ppb	16:53:43
1	Mo 202.031†	21.6	9.6	0.7262 ug/L	0.7262 ppb	16:53:43
1	Ni 231.604†	60.1	-17.4	-0.4453 ug/L	-0.4453 ppb	16:53:43
1	P 214.914†	243.1	-5.6	-3.2634 ug/L	-3.2634 ppb	16:53:43
1	Pb 220.353†	-46.0	21.5	2.6382 ug/L	2.6382 ppb	16:53:43
1	S 181.975 Axial†	44.3	-3.8	-5.1606 ug/L	-5.1606 ppb	16:53:43
1	Sb 206.836†	48.8	13.3	4.6597 ug/L	4.6597 ppb	16:53:43
1	Se 196.026†	-26.7	-1.2	-0.7468 ug/L	-0.7468 ppb	16:53:43
1	Si 251.611†	499.1	-35.7	-1.1770 ug/L	-1.1770 ppb	16:53:43
1	Sn 189.927†	11.1	1.6	0.2832 ug/L	0.2832 ppb	16:53:43
1	Ti 334.940†	-1417.1	163.5	0.2543 ug/L	0.2543 ppb	16:53:23
1	Tl 190.801†	-41.5	-6.9	-2.1410 ug/L	-2.1410 ppb	16:53:43
1	U 409.014†	-3073.0	560.1	17.585 ug/L	17.585 ppb	16:53:23
1	V 292.402†	-1600.0	1.2	0.0527 ug/L	0.0527 ppb	16:53:23
1	Zn 213.857†	696.3	-37.1	-0.3515 ug/L	-0.3515 ppb	16:53:43
1	SiO2†	551.3	15.2	1.0385 ug/L	1.0385 ppb	16:54:39
2	Sc Radial	4840.2	4840.2	98.3 %		16:52:31
2	Y RADIAL	5146.4	5146.4	99.23 %		16:52:31
2	Al 396.153Radial†	-168.0	-7.6	-6.6496 ug/L	-6.6496 ppb	16:52:31
2	Ca 317.933Radial†	19.1	4.5	7.0081 ug/L	7.0081 ppb	16:52:51
2	Fe 238.204 Radial†	10.2	-1.0	-9.2082 ug/L	-9.2082 ppb	16:52:51
2	K 766.490 Radial†	2830.3	-84.1	-14.724 ug/L	-14.724 ppb	16:52:31
2	Mg 279.077 IEC†	1.3	0.1	2.7839 ug/L	2.7839 ppb	16:52:51
2	Na 589.592 Radial†	-732.5	405.2	132.06 ug/L	132.06 ppb	16:52:31
2	Sr 421.552†	-1.1	-14.7	-0.0967 ug/L	-0.0967 ppb	16:52:31
2	Sc 361.383	835716.5	835716.5	101.07 %		16:53:48
2	Y 371.029	669032.9	669032.9	100.24 %		16:53:48
2	Ag 328.068†	202.4	-96.9	-0.4783 ug/L	-0.4783 ppb	16:53:48
2	As 188.979†	-23.3	7.6	3.2673 ug/L	3.2673 ppb	16:54:08
2	B 249.677†	-494.2	106.0	2.5255 ug/L	2.5255 ppb	16:54:08
2	Ba 233.527†	-9.6	0.8	0.0082 ug/L	0.0082 ppb	16:54:08
2	Be 313.107†	-3899.9	-158.3	-0.0571 ug/L	-0.0571 ppb	16:53:48
2	Cd 226.502†	-204.7	13.5	0.1611 ug/L	0.1611 ppb	16:54:08
2	Co 228.616†	-77.5	6.7	0.1375 ug/L	0.1375 ppb	16:54:08
2	Cr 267.716†	97.4	29.7	0.3492 ug/L	0.3492 ppb	16:54:08
2	Cu 324.752†	4620.7	-149.1	-0.4664 ug/L	-0.4664 ppb	16:53:48
2	Mn 257.610†	449.2	-25.5	-0.0296 ug/L	-0.0296 ppb	16:54:08
2	Mo 202.031†	18.0	6.0	0.4479 ug/L	0.4479 ppb	16:54:08
2	Ni 231.604†	56.3	-21.3	-0.5469 ug/L	-0.5469 ppb	16:54:08

2	P 214.914†	252.6	2.9	1.8393 ug/L	1.8393 ppb	16:54:08
2	Pb 220.353†	-59.3	8.5	1.0398 ug/L	1.0398 ppb	16:54:08
2	S 181.975 Axial†	38.9	-9.3	-12.717 ug/L	-12.717 ppb	16:54:08
2	Sb 206.836†	43.3	7.7	2.7179 ug/L	2.7179 ppb	16:54:08
2	Se 196.026†	-16.2	9.3	6.0783 ug/L	6.0783 ppb	16:54:08
2	Si 251.611†	502.4	-34.2	-1.1245 ug/L	-1.1245 ppb	16:54:08
2	Sn 189.927†	18.8	9.1	1.6505 ug/L	1.6505 ppb	16:54:08
2	Ti 334.940†	-1393.5	192.2	0.3049 ug/L	0.3049 ppb	16:53:48
2	Tl 190.801†	-38.0	-3.3	-1.0250 ug/L	-1.0250 ppb	16:54:08
2	U 409.014†	-3214.7	431.3	13.543 ug/L	13.543 ppb	16:53:48
2	V 292.402†	-1479.4	126.5	0.9773 ug/L	0.9773 ppb	16:53:48
2	Zn 213.857†	704.4	-31.7	-0.2977 ug/L	-0.2977 ppb	16:54:08
2	SiO2†	530.4	-7.6	-0.5438 ug/L	-0.5438 ppb	16:54:44
3	Sc Radial	4875.7	4875.7	99.0 %		16:52:56
3	Y RADIAL	5172.5	5172.5	99.73 %		16:52:56
3	Al 396.153Radial†	-143.1	18.7	16.199 ug/L	16.199 ppb	16:52:56
3	Ca 317.933Radial†	20.9	6.1	9.5720 ug/L	9.5720 ppb	16:53:16
3	Fe 238.204 Radial†	11.8	0.5	4.8500 ug/L	4.8500 ppb	16:53:16
3	K 766.490 Radial†	2788.3	-147.5	-25.782 ug/L	-25.782 ppb	16:52:56
3	Mg 279.077 IEC†	2.3	1.1	35.964 ug/L	35.964 ppb	16:53:16
3	Na 589.592 Radial†	-712.9	430.4	140.26 ug/L	140.26 ppb	16:52:56
3	Sr 421.552†	13.8	0.2	0.0014 ug/L	0.0014 ppb	16:52:56
3	Sc 361.383	820032.1	820032.1	99.173 %		16:54:14
3	Y 371.029	656570.2	656570.2	98.376 %		16:54:14
3	Ag 328.068†	272.1	-22.8	-0.1205 ug/L	-0.1205 ppb	16:54:14
3	As 188.979†	-26.3	4.2	1.7926 ug/L	1.7926 ppb	16:54:34
3	B 249.677†	-512.4	78.3	1.8638 ug/L	1.8638 ppb	16:54:34
3	Ba 233.527†	-15.4	-5.2	-0.0418 ug/L	-0.0418 ppb	16:54:34
3	Be 313.107†	-3871.6	-203.5	-0.0743 ug/L	-0.0743 ppb	16:54:14
3	Cd 226.502†	-202.3	12.1	0.1436 ug/L	0.1436 ppb	16:54:34
3	Co 228.616†	-76.3	6.4	0.1323 ug/L	0.1323 ppb	16:54:34
3	Cr 267.716†	61.4	-4.7	-0.0614 ug/L	-0.0614 ppb	16:54:34
3	Cu 324.752†	4562.1	-120.8	-0.3789 ug/L	-0.3789 ppb	16:54:14
3	Mn 257.610†	451.6	-14.5	-0.0172 ug/L	-0.0172 ppb	16:54:34
3	Mo 202.031†	20.5	8.8	0.6657 ug/L	0.6657 ppb	16:54:34
3	Ni 231.604†	86.4	10.1	0.2599 ug/L	0.2599 ppb	16:54:34
3	P 214.914†	235.7	-9.4	-5.4205 ug/L	-5.4205 ppb	16:54:34
3	Pb 220.353†	-48.6	18.2	2.2323 ug/L	2.2323 ppb	16:54:34
3	S 181.975 Axial†	43.0	-4.4	-6.0363 ug/L	-6.0363 ppb	16:54:34
3	Sb 206.836†	44.5	9.7	3.4104 ug/L	3.4104 ppb	16:54:34
3	Se 196.026†	-30.1	-5.0	-3.2267 ug/L	-3.2267 ppb	16:54:34
3	Si 251.611†	500.4	-26.8	-0.8846 ug/L	-0.8846 ppb	16:54:34
3	Sn 189.927†	16.0	6.6	1.1985 ug/L	1.1985 ppb	16:54:34
3	Ti 334.940†	-1556.9	1.0	-0.0062 ug/L	-0.0062 ppb	16:54:14
3	Tl 190.801†	-30.9	3.2	0.9965 ug/L	0.9965 ppb	16:54:34
3	U 409.014†	-3133.1	452.8	14.215 ug/L	14.215 ppb	16:54:14
3	V 292.402†	-1589.6	-12.7	-0.0579 ug/L	-0.0579 ppb	16:54:14
3	Zn 213.857†	704.4	-18.3	-0.1770 ug/L	-0.1770 ppb	16:54:34
3	SiO2†	584.6	57.1	3.9633 ug/L	3.9633 ppb	16:54:49

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	829444.9	100.31 %	1.004			1.00%
Sc Radial	4861.8	98.8 %	0.39			0.39%
Y 371.029	663263.0	99.379 %	0.9413			0.95%
Y RADIAL	5170.0	99.69 %	0.435			0.44%
Ag 328.068†	-68.9	-0.3442 ug/L	0.19507	-0.3442 ppb	0.19507	56.67%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	4.3	3.7039 ug/L	11.57398	3.7039 ppb	11.57398	312.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	2.7	1.1762 ug/L	2.45790	1.1762 ppb	2.45790	208.97%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	95.4	2.2706 ug/L	0.35600	2.2706 ppb	0.35600	15.68%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-2.8	-0.0216 ug/L	0.02635	-0.0216 ppb	0.02635	122.17%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-185.8	-0.0674 ug/L	0.00911	-0.0674 ppb	0.00911	13.51%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	1.4	2.2427 ug/L	10.55239	2.2427 ppb	10.55239	470.52%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	11.3	0.1346 ug/L	0.03191	0.1346 ppb	0.03191	23.70%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	7.1	0.1468 ug/L	0.02074	0.1468 ppb	0.02074	14.13%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	11.5	0.1314 ug/L	0.20641	0.1314 ppb	0.20641	157.08%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-105.3	-0.3322 ug/L	0.16273	-0.3322 ppb	0.16273	48.99%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.1	-1.1845 ug/L	7.23710	-1.1845 ppb	7.23710	610.98%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-145.4	-25.401 ug/L	10.4916	-25.401 ppb	10.4916	41.30%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.5	15.609 ug/L	17.8258	15.609 ppb	17.8258	114.20%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-19.1	-0.0222 ug/L	0.00650	-0.0222 ppb	0.00650	29.28%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	8.1	0.6132 ug/L	0.14634	0.6132 ppb	0.14634	23.86%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	399.3	130.12 ug/L	11.233	130.12 ppb	11.233	8.63%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-9.5	-0.2441 ug/L	0.43940	-0.2441 ppb	0.43940	179.99%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-4.0	-2.2815 ug/L	3.72818	-2.2815 ppb	3.72818	163.41%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	16.1	1.9701 ug/L	0.83081	1.9701 ppb	0.83081	42.17%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-5.8	-7.9715 ug/L	4.13340	-7.9715 ppb	4.13340	51.85%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	10.3	3.5960 ug/L	0.98409	3.5960 ppb	0.98409	27.37%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	1.1	0.7016 ug/L	4.81860	0.7016 ppb	4.81860	686.79%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-32.2	-1.0620 ug/L	0.15589	-1.0620 ppb	0.15589	14.68%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	5.8	1.0441 ug/L	0.69665	1.0441 ppb	0.69665	66.72%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-2.9	-0.0190 ug/L	0.06974	-0.0190 ppb	0.06974	367.06%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	118.9	0.1843 ug/L	0.16697	0.1843 ppb	0.16697	90.58%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-2.3	-0.7232 ug/L	1.59034	-0.7232 ppb	1.59034	219.92%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	481.4	15.114 ug/L	2.1658	15.114 ppb	2.1658	14.33%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	38.3	0.3240 ug/L	0.56844	0.3240 ppb	0.56844	175.44%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-29.0	-0.2754 ug/L	0.08939	-0.2754 ppb	0.08939	32.46%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	21.5	1.4860 ug/L	2.28662	1.4860 ppb	2.28662	153.88%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 27

Sample ID: 1202030862|948038|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 49

Date Collected: 2/12/2010 16:56:59

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030862|948038|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4928.0	4928.0	100 %		16:58:53
1	Y RADIAL	5220.1	5220.1	100.7 %		16:58:53
1	Al 396.153Radial†	-158.4	5.0	4.2536 ug/L	4.2536 ppb	16:58:53
1	Ca 317.933Radial†	26.3	11.3	17.676 ug/L	17.676 ppb	16:59:13
1	Fe 238.204 Radial†	11.5	0.0	0.4264 ug/L	0.4264 ppb	16:59:13
1	K 766.490 Radial†	2809.4	-156.4	-27.331 ug/L	-27.331 ppb	16:58:53
1	Mg 279.077 IEC†	1.9	0.7	22.461 ug/L	22.461 ppb	16:59:13
1	Na 589.592 Radial†	-666.5	484.4	157.87 ug/L	157.87 ppb	16:58:53
1	Sr 421.552†	32.8	19.1	0.1251 ug/L	0.1251 ppb	16:58:53
1	Sc 361.383	829796.2	829796.2	100.35 %		17:00:09
1	Y 371.029	662203.2	662203.2	99.220 %		17:00:09
1	Ag 328.068†	175.8	-121.9	-0.6005 ug/L	-0.6005 ppb	17:00:09
1	As 188.979†	-29.4	1.4	0.5847 ug/L	0.5847 ppb	17:00:30
1	B 249.677†	-519.8	77.1	1.8345 ug/L	1.8345 ppb	17:00:30
1	Ba 233.527†	-16.7	-6.4	-0.0510 ug/L	-0.0510 ppb	17:00:30
1	Be 313.107†	-3918.1	-204.0	-0.0740 ug/L	-0.0740 ppb	17:00:09
1	Cd 226.502†	-209.9	6.9	0.0828 ug/L	0.0828 ppb	17:00:30
1	Co 228.616†	-67.2	16.3	0.3373 ug/L	0.3373 ppb	17:00:30
1	Cr 267.716†	89.6	22.7	0.2641 ug/L	0.2641 ppb	17:00:30
1	Cu 324.752†	4632.2	-105.0	-0.3302 ug/L	-0.3302 ppb	17:00:09
1	Mn 257.610†	519.8	48.1	0.0530 ug/L	0.0530 ppb	17:00:30
1	Mo 202.031†	23.2	11.3	0.8504 ug/L	0.8504 ppb	17:00:30
1	Ni 231.604†	69.2	-8.1	-0.2065 ug/L	-0.2065 ppb	17:00:30
1	P 214.914†	250.4	2.5	1.5408 ug/L	1.5408 ppb	17:00:30
1	Pb 220.353†	-77.9	-10.5	-1.2854 ug/L	-1.2854 ppb	17:00:30
1	S 181.975 Axial†	46.8	-1.2	-1.6211 ug/L	-1.6211 ppb	17:00:30
1	Sb 206.836†	50.1	14.8	5.2008 ug/L	5.2008 ppb	17:00:30
1	Se 196.026†	-26.5	-1.0	-0.6804 ug/L	-0.6804 ppb	17:00:30
1	Si 251.611†	843.9	309.6	10.117 ug/L	10.117 ppb	17:00:30
1	Sn 189.927†	20.4	10.8	1.9559 ug/L	1.9559 ppb	17:00:30
1	Ti 334.940†	-1430.7	145.2	0.2290 ug/L	0.2290 ppb	17:00:09
1	Tl 190.801†	-31.4	3.0	0.9448 ug/L	0.9448 ppb	17:00:30
1	U 409.014†	-3199.0	424.3	13.321 ug/L	13.321 ppb	17:00:09
1	V 292.402†	-1621.1	-25.2	-0.1509 ug/L	-0.1509 ppb	17:00:09
1	Zn 213.857†	868.7	137.1	1.3126 ug/L	1.3126 ppb	17:00:30
1	SiO2†	882.0	346.5	24.154 ug/L	24.154 ppb	17:01:26
2	Sc Radial	4935.0	4935.0	100 %		16:59:18
2	Y RADIAL	5233.6	5233.6	100.9 %		16:59:18
2	Al 396.153Radial†	-159.4	4.2	3.6221 ug/L	3.6221 ppb	16:59:18
2	Ca 317.933Radial†	20.6	5.5	8.6875 ug/L	8.6875 ppb	16:59:38
2	Fe 238.204 Radial†	12.5	1.0	9.3315 ug/L	9.3315 ppb	16:59:38
2	K 766.490 Radial†	2787.4	-182.4	-31.853 ug/L	-31.853 ppb	16:59:18
2	Mg 279.077 IEC†	2.3	1.1	35.212 ug/L	35.212 ppb	16:59:38
2	Na 589.592 Radial†	-717.5	434.5	141.60 ug/L	141.60 ppb	16:59:18
2	Sr 421.552†	51.5	37.8	0.2474 ug/L	0.2474 ppb	16:59:18
2	Sc 361.383	829657.3	829657.3	100.34 %		17:00:35
2	Y 371.029	662470.0	662470.0	99.260 %		17:00:35
2	Ag 328.068†	229.9	-68.0	-0.3304 ug/L	-0.3304 ppb	17:00:35
2	As 188.979†	-29.1	1.7	0.7245 ug/L	0.7245 ppb	17:00:55
2	B 249.677†	-536.9	60.0	1.4263 ug/L	1.4263 ppb	17:00:55
2	Ba 233.527†	-11.9	-1.6	-0.0108 ug/L	-0.0108 ppb	17:00:55
2	Be 313.107†	-3976.3	-262.6	-0.0955 ug/L	-0.0955 ppb	17:00:35
2	Cd 226.502†	-204.8	12.0	0.1404 ug/L	0.1404 ppb	17:00:55
2	Co 228.616†	-88.4	-4.7	-0.0966 ug/L	-0.0966 ppb	17:00:55
2	Cr 267.716†	74.8	7.9	0.0918 ug/L	0.0918 ppb	17:00:55
2	Cu 324.752†	4679.0	-57.6	-0.1820 ug/L	-0.1820 ppb	17:00:35
2	Mn 257.610†	515.3	43.7	0.0485 ug/L	0.0485 ppb	17:00:55
2	Mo 202.031†	19.4	7.5	0.5622 ug/L	0.5622 ppb	17:00:55
2	Ni 231.604†	59.5	-17.7	-0.4541 ug/L	-0.4541 ppb	17:00:55

2	P 214.914†	255.4	7.5	4.4409 ug/L	4.4409 ppb	17:00:55
2	Pb 220.353†	-86.6	-19.1	-2.3440 ug/L	-2.3440 ppb	17:00:55
2	S 181.975 Axial†	40.3	-7.6	-10.472 ug/L	-10.472 ppb	17:00:55
2	Sb 206.836†	39.9	4.6	1.6215 ug/L	1.6215 ppb	17:00:55
2	Se 196.026†	-24.0	1.4	0.9742 ug/L	0.9742 ppb	17:00:55
2	Si 251.611†	851.2	317.0	10.362 ug/L	10.362 ppb	17:00:55
2	Sn 189.927†	11.1	1.5	0.2814 ug/L	0.2814 ppb	17:00:55
2	Ti 334.940†	-1465.1	110.8	0.1728 ug/L	0.1728 ppb	17:00:35
2	Tl 190.801†	-27.4	7.0	2.1841 ug/L	2.1841 ppb	17:00:55
2	U 409.014†	-3314.7	308.3	9.6801 ug/L	9.6801 ppb	17:00:35
2	V 292.402†	-1494.5	100.7	0.7774 ug/L	0.7774 ppb	17:00:35
2	Zn 213.857†	880.4	148.8	1.4249 ug/L	1.4249 ppb	17:00:55
2	SiO2†	848.9	313.7	21.874 ug/L	21.874 ppb	17:01:31
3	Sc Radial	4961.0	4961.0	101 %		16:59:43
3	Y RADIAL	5228.4	5228.4	100.8 %		16:59:43
3	Al 396.153Radial†	-169.2	-4.6	-4.0475 ug/L	-4.0475 ppb	16:59:43
3	Ca 317.933Radial†	22.1	6.9	10.855 ug/L	10.855 ppb	17:00:03
3	Fe 238.204 Radial†	11.1	-0.4	-4.0407 ug/L	-4.0407 ppb	17:00:03
3	K 766.490 Radial†	2690.0	-293.5	-51.233 ug/L	-51.233 ppb	16:59:43
3	Mg 279.077 IEC†	5.6	4.4	143.63 ug/L	143.63 ppb	17:00:03
3	Na 589.592 Radial†	-696.6	458.9	149.56 ug/L	149.56 ppb	16:59:43
3	Sr 421.552†	68.6	54.4	0.3566 ug/L	0.3566 ppb	16:59:43
3	Sc 361.383	836144.5	836144.5	101.12 %		17:01:00
3	Y 371.029	668160.0	668160.0	100.11 %		17:01:00
3	Ag 328.068†	67.4	-230.5	-1.1252 ug/L	-1.1252 ppb	17:01:00
3	As 188.979†	-27.2	3.8	1.6367 ug/L	1.6367 ppb	17:01:20
3	B 249.677†	-552.0	49.2	1.1708 ug/L	1.1708 ppb	17:01:20
3	Ba 233.527†	-19.6	-9.1	-0.0716 ug/L	-0.0716 ppb	17:01:20
3	Be 313.107†	-3816.2	-73.5	-0.0260 ug/L	-0.0260 ppb	17:01:00
3	Cd 226.502†	-213.8	4.6	0.0576 ug/L	0.0576 ppb	17:01:20
3	Co 228.616†	-78.8	5.4	0.1114 ug/L	0.1114 ppb	17:01:20
3	Cr 267.716†	77.2	9.7	0.1101 ug/L	0.1101 ppb	17:01:20
3	Cu 324.752†	4665.9	-106.8	-0.3368 ug/L	-0.3368 ppb	17:01:00
3	Mn 257.610†	538.6	62.8	0.0641 ug/L	0.0641 ppb	17:01:20
3	Mo 202.031†	17.9	5.8	0.4388 ug/L	0.4388 ppb	17:01:20
3	Ni 231.604†	73.4	-4.5	-0.1143 ug/L	-0.1143 ppb	17:01:20
3	P 214.914†	258.4	8.5	5.0786 ug/L	5.0786 ppb	17:01:20
3	Pb 220.353†	-68.5	-0.6	-0.0716 ug/L	-0.0716 ppb	17:01:20
3	S 181.975 Axial†	49.1	0.8	1.0948 ug/L	1.0948 ppb	17:01:20
3	Sb 206.836†	44.7	9.1	3.1949 ug/L	3.1949 ppb	17:01:20
3	Se 196.026†	-25.2	0.5	0.3085 ug/L	0.3085 ppb	17:01:20
3	Si 251.611†	854.6	313.8	10.259 ug/L	10.259 ppb	17:01:20
3	Sn 189.927†	13.8	4.2	0.7626 ug/L	0.7626 ppb	17:01:20
3	Ti 334.940†	-1362.5	223.6	0.3440 ug/L	0.3440 ppb	17:01:00
3	Tl 190.801†	-29.2	5.4	1.6789 ug/L	1.6789 ppb	17:01:20
3	U 409.014†	-3165.7	481.4	15.115 ug/L	15.115 ppb	17:01:00
3	V 292.402†	-1551.2	56.2	0.4573 ug/L	0.4573 ppb	17:01:00
3	Zn 213.857†	872.7	134.5	1.2876 ug/L	1.2876 ppb	17:01:20
3	SiO2†	892.1	349.8	24.398 ug/L	24.398 ppb	17:01:36

Mean Data: 1202030862|948038|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	831866.0	100.60 %	0.448			0.45%
Sc Radial	4941.3	100 %	0.4			0.35%
Y 371.029	664277.7	99.531 %	0.5042			0.51%
Y RADIAL	5227.4	100.8 %	0.13			0.13%
Ag 328.068†	-140.1	-0.6854 ug/L	0.40415	-0.6854 ppb	0.40415	58.97%
Al 396.153Radial†	1.5	1.2761 ug/L	4.62114	1.2761 ppb	4.62114	362.14%
As 188.979†	2.3	0.9820 ug/L	0.57131	0.9820 ppb	0.57131	58.18%
B 249.677†	62.1	1.4772 ug/L	0.33476	1.4772 ppb	0.33476	22.66%
Ba 233.527†	-5.7	-0.0445 ug/L	0.03096	-0.0445 ppb	0.03096	69.60%
Be 313.107†	-180.0	-0.0652 ug/L	0.03556	-0.0652 ppb	0.03556	54.57%
Ca 317.933Radial†	7.9	12.406 ug/L	4.6906	12.406 ppb	4.6906	37.81%
Cd 226.502†	7.8	0.0936 ug/L	0.04244	0.0936 ppb	0.04244	45.35%
Co 228.616†	5.7	0.1174 ug/L	0.21703	0.1174 ppb	0.21703	184.88%
Cr 267.716†	13.5	0.1553 ug/L	0.09460	0.1553 ppb	0.09460	60.90%
Cu 324.752†	-89.8	-0.2830 ug/L	0.08752	-0.2830 ppb	0.08752	30.92%
Fe 238.204 Radial†	0.2	1.9057 ug/L	6.80773	1.9057 ppb	6.80773	357.23%
K 766.490 Radial†	-210.7	-36.806 ug/L	12.6972	-36.806 ppb	12.6972	34.50%

Mg 279.077 IEC†	2.0	67.102 ug/L	66.5825	67.102 ppb	66.5825	99.23%
Mn 257.610†	51.5	0.0552 ug/L	0.00801	0.0552 ppb	0.00801	14.51%
Mo 202.031†	8.2	0.6171 ug/L	0.21120	0.6171 ppb	0.21120	34.22%
Na 589.592 Radial†	459.3	149.68 ug/L	8.135	149.68 ppb	8.135	5.44%
Ni 231.604†	-10.1	-0.2583 ug/L	0.17572	-0.2583 ppb	0.17572	68.03%
P 214.914†	6.2	3.6867 ug/L	1.88561	3.6867 ppb	1.88561	51.15%
Pb 220.353†	-10.1	-1.2337 ug/L	1.13710	-1.2337 ppb	1.13710	92.17%
S 181.975 Axial†	-2.7	-3.6661 ug/L	6.04849	-3.6661 ppb	6.04849	164.98%
Sb 206.836†	9.5	3.3391 ug/L	1.79396	3.3391 ppb	1.79396	53.73%
Se 196.026†	0.3	0.2008 ug/L	0.83252	0.2008 ppb	0.83252	414.70%
Si 251.611†	313.5	10.246 ug/L	0.1231	10.246 ppb	0.1231	1.20%
Sn 189.927†	5.5	1.0000 ug/L	0.86211	1.0000 ppb	0.86211	86.21%
Sr 421.552†	37.1	0.2430 ug/L	0.11579	0.2430 ppb	0.11579	47.64%
Ti 334.940†	159.8	0.2486 ug/L	0.08724	0.2486 ppb	0.08724	35.09%
Tl 190.801†	5.2	1.6026 ug/L	0.62316	1.6026 ppb	0.62316	38.88%
U 409.014†	404.7	12.705 ug/L	2.7690	12.705 ppb	2.7690	21.79%
V 292.402†	43.9	0.3612 ug/L	0.47153	0.3612 ppb	0.47153	130.53%
Zn 213.857†	140.1	1.3417 ug/L	0.07313	1.3417 ppb	0.07313	5.45%
SiO2†	336.7	23.475 ug/L	1.3918	23.475 ppb	1.3918	5.93%



Sequence No.: 28

Sample ID: 1202030863|948038|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 50

Date Collected: 2/12/2010 17:03:47

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030863|948038|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4929.1	4929.1	100 %		17:05:40
1	Y RADIAL	5266.8	5266.8	101.6 %		17:05:40
1	Al 396.153Radial†	5535.7	5692.1	4912.5 ug/L	4912.5 ppb	17:05:40
1	Ca 317.933Radial†	3214.8	3195.9	5009.1 ug/L	5009.1 ppb	17:06:00
1	Fe 238.204 Radial†	578.5	566.3	5174.4 ug/L	5174.4 ppb	17:06:00
1	K 766.490 Radial†	31038.9	28038.0	4883.9 ug/L	4883.9 ppb	17:05:40
1	Mg 279.077 IEC†	156.6	155.2	5105.2 ug/L	5105.2 ppb	17:06:00
1	Na 589.592 Radial†	15983.8	17114.5	5577.6 ug/L	5577.6 ppb	17:05:40
1	Sr 421.552†	78383.3	78273.8	513.04 ug/L	513.04 ppb	17:05:40
1	Sc 361.383	846845.6	846845.6	102.42 %		17:06:59
1	Y 371.029	667968.0	667968.0	100.08 %		17:06:59
1	Ag 328.068†	103705.7	100962.6	490.82 ug/L	490.82 ppb	17:06:59
1	As 188.979†	1103.9	1108.5	482.39 ug/L	482.39 ppb	17:07:19
1	B 249.677†	20103.2	20224.1	479.33 ug/L	479.33 ppb	17:06:59
1	Ba 233.527†	63625.0	62134.7	496.53 ug/L	496.53 ppb	17:06:59
1	Be 313.107†	1321496.4	1294029.2	473.75 ug/L	473.75 ppb	17:06:59
1	Cd 226.502†	41594.5	40829.6	476.48 ug/L	476.48 ppb	17:07:19
1	Co 228.616†	23929.5	23448.4	482.10 ug/L	482.10 ppb	17:07:19
1	Cr 267.716†	41748.2	40697.0	484.25 ug/L	484.25 ppb	17:06:59
1	Cu 324.752†	170506.7	161764.4	497.26 ug/L	497.26 ppb	17:06:59
1	Mn 257.610†	450630.8	439532.8	492.79 ug/L	492.79 ppb	17:06:59
1	Mo 202.031†	6634.7	6466.4	487.60 ug/L	487.60 ppb	17:07:19
1	Ni 231.604†	19609.5	19070.0	488.46 ug/L	488.46 ppb	17:07:19
1	P 214.914†	1264.7	987.8	484.49 ug/L	484.49 ppb	17:07:19
1	Pb 220.353†	4030.0	4002.1	492.16 ug/L	492.16 ppb	17:07:19
1	S 181.975 Axial†	3717.0	3581.5	4913.7 ug/L	4913.7 ppb	17:07:19
1	Sb 206.836†	1526.1	1455.0	523.82 ug/L	523.82 ppb	17:07:19
1	Se 196.026†	722.3	730.6	495.76 ug/L	495.76 ppb	17:07:19
1	Si 251.611†	151404.7	147302.5	4812.4 ug/L	4812.4 ppb	17:06:59
1	Sn 189.927†	2876.9	2799.6	507.15 ug/L	507.15 ppb	17:07:19
1	Ti 334.940†	321942.5	315920.4	509.89 ug/L	509.89 ppb	17:06:59
1	Tl 190.801†	1573.1	1570.4	490.41 ug/L	490.41 ppb	17:07:19
1	U 409.014†	13215.7	16515.9	516.90 ug/L	516.90 ppb	17:06:59
1	V 292.402†	65452.8	65499.3	495.48 ug/L	495.48 ppb	17:06:59
1	Zn 213.857†	51931.2	49977.8	473.40 ug/L	473.40 ppb	17:06:59
1	SiO2†	151078.1	146982.6	10242 ug/L	10242 ppb	17:08:19
2	Sc Radial	4951.2	4951.2	101 %		17:06:05
2	Y RADIAL	5233.2	5233.2	100.9 %		17:06:05
2	Al 396.153Radial†	5585.4	5717.0	4934.3 ug/L	4934.3 ppb	17:06:05
2	Ca 317.933Radial†	3212.7	3179.5	4983.5 ug/L	4983.5 ppb	17:06:25
2	Fe 238.204 Radial†	576.7	562.0	5135.1 ug/L	5135.1 ppb	17:06:25
2	K 766.490 Radial†	31258.5	28118.2	4897.9 ug/L	4897.9 ppb	17:06:05
2	Mg 279.077 IEC†	155.3	153.2	5040.9 ug/L	5040.9 ppb	17:06:25
2	Na 589.592 Radial†	15981.1	17040.6	5553.5 ug/L	5553.5 ppb	17:06:05
2	Sr 421.552†	78592.1	78132.6	512.11 ug/L	512.11 ppb	17:06:05
2	Sc 361.383	857074.3	857074.3	103.65 %		17:07:26
2	Y 371.029	677304.9	677304.9	101.48 %		17:07:26
2	Ag 328.068†	104824.7	100833.7	490.19 ug/L	490.19 ppb	17:07:26
2	As 188.979†	1106.9	1098.6	478.12 ug/L	478.12 ppb	17:07:46
2	B 249.677†	20339.0	20217.3	479.19 ug/L	479.19 ppb	17:07:26
2	Ba 233.527†	64257.4	62003.4	495.49 ug/L	495.49 ppb	17:07:26
2	Be 313.107†	1343436.2	1299796.7	475.86 ug/L	475.86 ppb	17:07:26
2	Cd 226.502†	41566.0	40317.4	470.50 ug/L	470.50 ppb	17:07:46
2	Co 228.616†	23940.2	23180.0	476.56 ug/L	476.56 ppb	17:07:46
2	Cr 267.716†	42226.1	40671.5	483.95 ug/L	483.95 ppb	17:07:26
2	Cu 324.752†	172317.5	161524.5	496.53 ug/L	496.53 ppb	17:07:26
2	Mn 257.610†	455263.7	438751.3	491.92 ug/L	491.92 ppb	17:07:26
2	Mo 202.031†	6622.1	6376.9	480.85 ug/L	480.85 ppb	17:07:46
2	Ni 231.604†	19566.0	18799.5	481.53 ug/L	481.53 ppb	17:07:46

2	P 214.914†	1270.5	978.7	479.22 ug/L	479.22 ppb	17:07:46
2	Pb 220.353†	4009.3	3935.2	483.95 ug/L	483.95 ppb	17:07:46
2	S 181.975 Axial†	3693.6	3515.7	4823.4 ug/L	4823.4 ppb	17:07:46
2	Sb 206.836†	1551.5	1461.7	525.87 ug/L	525.87 ppb	17:07:46
2	Se 196.026†	721.2	721.2	489.44 ug/L	489.44 ppb	17:07:46
2	Si 251.611†	153027.5	147103.8	4806.0 ug/L	4806.0 ppb	17:07:26
2	Sn 189.927†	2861.2	2750.9	498.33 ug/L	498.33 ppb	17:07:46
2	Ti 334.940†	325421.1	315524.9	509.25 ug/L	509.25 ppb	17:07:26
2	Tl 190.801†	1588.7	1567.0	489.39 ug/L	489.39 ppb	17:07:46
2	U 409.014†	13187.9	16335.1	511.23 ug/L	511.23 ppb	17:07:26
2	V 292.402†	66461.1	65709.4	496.94 ug/L	496.94 ppb	17:07:26
2	Zn 213.857†	52551.9	49971.5	473.39 ug/L	473.39 ppb	17:07:26
2	SiO2†	153068.7	147142.5	10254 ug/L	10254 ppb	17:08:24
3	Sc Radial	5034.5	5034.5	102 %		17:06:30
3	Y RADIAL	5293.3	5293.3	102.1 %		17:06:30
3	Al 396.153Radial†	5655.2	5693.3	4913.5 ug/L	4913.5 ppb	17:06:30
3	Ca 317.933Radial†	3176.1	3090.8	4844.5 ug/L	4844.5 ppb	17:06:50
3	Fe 238.204 Radial†	568.9	544.9	4978.9 ug/L	4978.9 ppb	17:06:50
3	K 766.490 Radial†	31607.1	27944.7	4867.7 ug/L	4867.7 ppb	17:06:30
3	Mg 279.077 IEC†	156.6	151.9	4997.0 ug/L	4997.0 ppb	17:06:50
3	Na 589.592 Radial†	16258.7	17049.1	5556.3 ug/L	5556.3 ppb	17:06:30
3	Sr 421.552†	79803.7	78024.0	511.40 ug/L	511.40 ppb	17:06:30
3	Sc 361.383	848535.0	848535.0	102.62 %		17:07:53
3	Y 371.029	670530.4	670530.4	100.47 %		17:07:53
3	Ag 328.068†	104050.8	101097.4	491.42 ug/L	491.42 ppb	17:07:53
3	As 188.979†	1115.3	1117.5	486.24 ug/L	486.24 ppb	17:08:13
3	B 249.677†	20198.4	20277.8	480.64 ug/L	480.64 ppb	17:07:53
3	Ba 233.527†	63947.8	62325.5	498.05 ug/L	498.05 ppb	17:07:53
3	Be 313.107†	1332522.7	1302205.1	476.74 ug/L	476.74 ppb	17:07:53
3	Cd 226.502†	41630.8	40784.0	475.97 ug/L	475.97 ppb	17:08:13
3	Co 228.616†	23987.7	23458.6	482.31 ug/L	482.31 ppb	17:08:13
3	Cr 267.716†	41955.0	40817.3	485.68 ug/L	485.68 ppb	17:07:53
3	Cu 324.752†	170770.0	161689.5	497.03 ug/L	497.03 ppb	17:07:53
3	Mn 257.610†	452368.5	440350.2	493.69 ug/L	493.69 ppb	17:07:53
3	Mo 202.031†	6662.0	6480.0	488.61 ug/L	488.61 ppb	17:08:13
3	Ni 231.604†	19645.8	19067.2	488.39 ug/L	488.39 ppb	17:08:13
3	P 214.914†	1279.7	999.9	491.82 ug/L	491.82 ppb	17:08:13
3	Pb 220.353†	4016.3	3980.9	489.58 ug/L	489.58 ppb	17:08:13
3	S 181.975 Axial†	3721.6	3578.8	4910.1 ug/L	4910.1 ppb	17:08:13
3	Sb 206.836†	1565.2	1490.1	536.04 ug/L	536.04 ppb	17:08:13
3	Se 196.026†	731.6	738.3	500.13 ug/L	500.13 ppb	17:08:13
3	Si 251.611†	151920.4	147510.7	4819.2 ug/L	4819.2 ppb	17:07:53
3	Sn 189.927†	2875.3	2792.4	505.81 ug/L	505.81 ppb	17:08:13
3	Ti 334.940†	322869.1	316197.5	510.32 ug/L	510.32 ppb	17:07:53
3	Tl 190.801†	1580.9	1574.9	491.82 ug/L	491.82 ppb	17:08:13
3	U 409.014†	13059.9	16338.5	511.35 ug/L	511.35 ppb	17:07:53
3	V 292.402†	65899.2	65807.1	497.80 ug/L	497.80 ppb	17:07:53
3	Zn 213.857†	52290.6	50227.0	475.81 ug/L	475.81 ppb	17:07:53
3	SiO2†	154081.1	149615.2	10426 ug/L	10426 ppb	17:08:29

Mean Data: 1202030863|948038|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	850818.3	102.90 %	0.663			0.64%
Sc Radial	4971.6	101 %	1.1			1.12%
Y 371.029	671934.4	100.68 %	0.723			0.72%
Y RADIAL	5264.4	101.5 %	0.58			0.57%
Ag 328.068†	100964.6	490.81 ug/L	0.613	490.81 ppb	0.613	0.12%
Al 396.153Radial†	5700.8	4920.1 ug/L	12.35	4920.1 ppb	12.35	0.25%
As 188.979†	1108.2	482.25 ug/L	4.061	482.25 ppb	4.061	0.84%
B 249.677†	20239.7	479.72 ug/L	0.800	479.72 ppb	0.800	0.17%
Ba 233.527†	62154.6	496.69 ug/L	1.290	496.69 ppb	1.290	0.26%
Be 313.107†	1298677.0	475.45 ug/L	1.535	475.45 ppb	1.535	0.32%
Ca 317.933Radial†	3155.4	4945.7 ug/L	88.61	4945.7 ppb	88.61	1.79%
Cd 226.502†	40643.7	474.32 ug/L	3.315	474.32 ppb	3.315	0.70%
Co 228.616†	23362.4	480.32 ug/L	3.258	480.32 ppb	3.258	0.68%
Cr 267.716†	40728.6	484.62 ug/L	0.925	484.62 ppb	0.925	0.19%
Cu 324.752†	161659.4	496.94 ug/L	0.376	496.94 ppb	0.376	0.08%
Fe 238.204 Radial†	557.8	5096.1 ug/L	103.39	5096.1 ppb	103.39	2.03%
K 766.490 Radial†	28033.6	4883.2 ug/L	15.12	4883.2 ppb	15.12	0.31%

Mg 279.077 IEC†	153.5	5047.7 ug/L	54.43	5047.7 ppb	54.43	1.08%
Mn 257.610†	439544.8	492.80 ug/L	0.889	492.80 ppb	0.889	0.18%
Mo 202.031†	6441.1	485.69 ug/L	4.216	485.69 ppb	4.216	0.87%
Na 589.592 Radial†	17068.1	5562.5 ug/L	13.17	5562.5 ppb	13.17	0.24%
Ni 231.604†	18978.9	486.13 ug/L	3.980	486.13 ppb	3.980	0.82%
P 214.914†	988.8	485.18 ug/L	6.328	485.18 ppb	6.328	1.30%
Pb 220.353†	3972.7	488.56 ug/L	4.200	488.56 ppb	4.200	0.86%
S 181.975 Axial†	3558.7	4882.4 ug/L	51.14	4882.4 ppb	51.14	1.05%
Sb 206.836†	1468.9	528.58 ug/L	6.544	528.58 ppb	6.544	1.24%
Se 196.026†	730.0	495.11 ug/L	5.374	495.11 ppb	5.374	1.09%
Si 251.611†	147305.7	4812.6 ug/L	6.61	4812.6 ppb	6.61	0.14%
Sn 189.927†	2780.9	503.76 ug/L	4.754	503.76 ppb	4.754	0.94%
Sr 421.552†	78143.5	512.19 ug/L	0.820	512.19 ppb	0.820	0.16%
Ti 334.940†	315880.9	509.82 ug/L	0.538	509.82 ppb	0.538	0.11%
Tl 190.801†	1570.8	490.54 ug/L	1.224	490.54 ppb	1.224	0.25%
U 409.014†	16396.5	513.16 ug/L	3.240	513.16 ppb	3.240	0.63%
V 292.402†	65671.9	496.74 ug/L	1.177	496.74 ppb	1.177	0.24%
Zn 213.857†	50058.8	474.20 ug/L	1.396	474.20 ppb	1.396	0.29%
SiO2†	147913.4	10307 ug/L	102.9	10307 ppb	102.9	1.00%

Sequence No.: 29

Sample ID: 245690001|948038|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 51

Date Collected: 2/12/2010 17:10:40

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 245690001|948038|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5077.5	5077.5	103 %		17:12:33
1	Y RADIAL	5370.6	5370.6	103.6 %		17:12:33
1	Al 396.153Radial†	-151.6	16.2	14.054 ug/L	14.054 ppb	17:12:33
1	Ca 317.933Radial†	36.9	20.8	32.601 ug/L	32.601 ppb	17:12:53
1	Fe 238.204 Radial†	10.2	-1.5	-13.615 ug/L	-13.615 ppb	17:12:53
1	K 766.490 Radial†	3851.6	771.5	134.40 ug/L	134.40 ppb	17:12:33
1	Mg 279.077 IEC†	6.1	4.7	153.88 ug/L	153.88 ppb	17:12:53
1	Na 589.592 Radial†	-374.0	787.6	256.69 ug/L	256.69 ppb	17:12:33
1	Sr 421.552†	23.1	8.7	0.0569 ug/L	0.0569 ppb	17:12:33
1	Sc 361.383	862807.4	862807.4	104.35 %		17:13:50
1	Y 371.029	685344.1	685344.1	102.69 %		17:13:50
1	Ag 328.068†	181.4	-123.2	-0.6177 ug/L	-0.6177 ppb	17:13:55
1	As 188.979†	-29.3	2.6	1.1249 ug/L	1.1249 ppb	17:14:15
1	B 249.677†	244.5	829.3	19.748 ug/L	19.748 ppb	17:13:55
1	Ba 233.527†	43.1	51.6	0.4125 ug/L	0.4125 ppb	17:14:15
1	Be 313.107†	-3885.2	-23.0	-0.0069 ug/L	-0.0069 ppb	17:13:55
1	Cd 226.502†	-198.2	26.2	0.3118 ug/L	0.3118 ppb	17:14:15
1	Co 228.616†	-75.0	11.4	0.2348 ug/L	0.2348 ppb	17:14:15
1	Cr 267.716†	103.4	32.5	0.3766 ug/L	0.3766 ppb	17:14:15
1	Cu 324.752†	4921.3	-4.6	-0.0290 ug/L	-0.0290 ppb	17:13:55
1	Mn 257.610†	1132.9	615.9	0.6825 ug/L	0.6825 ppb	17:14:15
1	Mo 202.031†	18.3	5.7	0.4261 ug/L	0.4261 ppb	17:14:15
1	Ni 231.604†	73.3	-6.8	-0.1744 ug/L	-0.1744 ppb	17:14:15
1	P 214.914†	276.9	18.3	10.801 ug/L	10.801 ppb	17:14:15
1	Pb 220.353†	-64.5	5.4	0.6642 ug/L	0.6642 ppb	17:14:15
1	S 181.975 Axial†	78.5	27.4	37.602 ug/L	37.602 ppb	17:14:15
1	Sb 206.836†	45.7	8.7	3.0540 ug/L	3.0540 ppb	17:14:15
1	Se 196.026†	-14.6	11.4	7.3855 ug/L	7.3855 ppb	17:14:15
1	Si 251.611†	41575.5	39312.6	1286.0 ug/L	1286.0 ppb	17:13:55
1	Sn 189.927†	15.5	5.4	0.9817 ug/L	0.9817 ppb	17:14:15
1	Ti 334.940†	-1198.3	422.6	0.6626 ug/L	0.6626 ppb	17:13:55
1	Tl 190.801†	-30.6	5.0	1.5593 ug/L	1.5593 ppb	17:14:15
1	U 409.014†	-2915.8	817.6	25.671 ug/L	25.671 ppb	17:13:50
1	V 292.402†	-1538.5	115.8	0.9236 ug/L	0.9236 ppb	17:13:55
1	Zn 213.857†	976.1	206.8	1.9813 ug/L	1.9813 ppb	17:14:15
1	SiO2†	42339.1	40043.4	2794.0 ug/L	2794.0 ppb	17:15:21
2	Sc Radial	5071.1	5071.1	103 %		17:12:58
2	Y RADIAL	5374.4	5374.4	103.6 %		17:12:58
2	Al 396.153Radial†	-129.7	37.3	32.332 ug/L	32.332 ppb	17:12:58
2	Ca 317.933Radial†	36.0	19.9	31.258 ug/L	31.258 ppb	17:13:18
2	Fe 238.204 Radial†	10.9	-0.8	-7.2832 ug/L	-7.2832 ppb	17:13:18
2	K 766.490 Radial†	3760.3	687.5	119.77 ug/L	119.77 ppb	17:12:58
2	Mg 279.077 IEC†	2.5	1.2	39.686 ug/L	39.686 ppb	17:13:18
2	Na 589.592 Radial†	-407.9	754.2	245.80 ug/L	245.80 ppb	17:12:58
2	Sr 421.552†	78.3	62.4	0.4087 ug/L	0.4087 ppb	17:12:58
2	Sc 361.383	852794.5	852794.5	103.13 %		17:14:20
2	Y 371.029	678549.9	678549.9	101.67 %		17:14:20
2	Ag 328.068†	249.6	-55.1	-0.2831 ug/L	-0.2831 ppb	17:14:25
2	As 188.979†	-18.2	13.0	5.6016 ug/L	5.6016 ppb	17:14:45
2	B 249.677†	227.4	815.6	19.420 ug/L	19.420 ppb	17:14:25
2	Ba 233.527†	23.0	32.6	0.2620 ug/L	0.2620 ppb	17:14:45
2	Be 313.107†	-3855.2	-37.7	-0.0127 ug/L	-0.0127 ppb	17:14:25
2	Cd 226.502†	-199.8	22.3	0.2659 ug/L	0.2659 ppb	17:14:45
2	Co 228.616†	-84.9	1.1	0.0237 ug/L	0.0237 ppb	17:14:45
2	Cr 267.716†	98.0	28.3	0.3292 ug/L	0.3292 ppb	17:14:45
2	Cu 324.752†	4999.3	126.4	0.3757 ug/L	0.3757 ppb	17:14:25
2	Mn 257.610†	1155.4	650.4	0.7264 ug/L	0.7264 ppb	17:14:45
2	Mo 202.031†	27.0	14.3	1.0802 ug/L	1.0802 ppb	17:14:45
2	Ni 231.604†	90.1	10.3	0.2639 ug/L	0.2639 ppb	17:14:45

2	P 214.914†	263.9	8.8	5.1562 ug/L	5.1562 ppb	17:14:45
2	Pb 220.353†	-46.0	22.5	2.7703 ug/L	2.7703 ppb	17:14:45
2	S 181.975 Axial†	77.7	27.6	37.822 ug/L	37.822 ppb	17:14:45
2	Sb 206.836†	44.8	8.3	2.9348 ug/L	2.9348 ppb	17:14:45
2	Se 196.026†	-25.1	1.1	0.7020 ug/L	0.7020 ppb	17:14:45
2	Si 251.611†	42258.6	40442.8	1322.9 ug/L	1322.9 ppb	17:14:25
2	Sn 189.927†	21.8	11.6	2.1086 ug/L	2.1086 ppb	17:14:45
2	Ti 334.940†	-1327.6	283.7	0.4490 ug/L	0.4490 ppb	17:14:25
2	Tl 190.801†	-39.2	-3.7	-1.1286 ug/L	-1.1286 ppb	17:14:45
2	U 409.014†	-2983.5	719.2	22.580 ug/L	22.580 ppb	17:14:20
2	V 292.402†	-1493.2	142.4	1.1227 ug/L	1.1227 ppb	17:14:25
2	Zn 213.857†	967.3	209.3	2.0007 ug/L	2.0007 ppb	17:14:45
2	SiO2†	42127.0	40314.1	2812.9 ug/L	2812.9 ppb	17:15:26
3	Sc Radial	5049.9	5049.9	103 %		17:13:23
3	Y RADIAL	5322.9	5322.9	102.6 %		17:13:23
3	Al 396.153Radial†	-148.7	18.2	15.843 ug/L	15.843 ppb	17:13:23
3	Ca 317.933Radial†	33.5	17.7	27.689 ug/L	27.689 ppb	17:13:43
3	Fe 238.204 Radial†	11.5	-0.2	-1.5754 ug/L	-1.5754 ppb	17:13:43
3	K 766.490 Radial†	3809.3	750.6	130.77 ug/L	130.77 ppb	17:13:23
3	Mg 279.077 IEC†	5.1	3.8	123.83 ug/L	123.83 ppb	17:13:43
3	Na 589.592 Radial†	-355.5	803.7	261.91 ug/L	261.91 ppb	17:13:23
3	Sr 421.552†	41.0	26.3	0.1720 ug/L	0.1720 ppb	17:13:23
3	Sc 361.383	856255.2	856255.2	103.55 %		17:14:50
3	Y 371.029	680516.5	680516.5	101.96 %		17:14:50
3	Ag 328.068†	264.6	-41.6	-0.2142 ug/L	-0.2142 ppb	17:14:55
3	As 188.979†	-20.1	11.2	4.8518 ug/L	4.8518 ppb	17:15:15
3	B 249.677†	345.4	928.5	22.109 ug/L	22.109 ppb	17:14:55
3	Ba 233.527†	35.6	44.6	0.3582 ug/L	0.3582 ppb	17:15:15
3	Be 313.107†	-3922.4	-87.4	-0.0309 ug/L	-0.0309 ppb	17:14:55
3	Cd 226.502†	-204.5	18.6	0.2208 ug/L	0.2208 ppb	17:15:15
3	Co 228.616†	-79.6	6.5	0.1308 ug/L	0.1308 ppb	17:15:15
3	Cr 267.716†	114.0	43.4	0.5093 ug/L	0.5093 ppb	17:15:15
3	Cu 324.752†	4952.3	61.4	0.1772 ug/L	0.1772 ppb	17:14:55
3	Mn 257.610†	1158.5	648.9	0.7218 ug/L	0.7218 ppb	17:15:15
3	Mo 202.031†	2.5	-9.4	-0.7115 ug/L	-0.7115 ppb	17:15:15
3	Ni 231.604†	78.4	-1.3	-0.0327 ug/L	-0.0327 ppb	17:15:15
3	P 214.914†	266.7	10.5	6.1415 ug/L	6.1415 ppb	17:15:15
3	Pb 220.353†	-47.4	21.4	2.6206 ug/L	2.6206 ppb	17:15:15
3	S 181.975 Axial†	80.2	29.6	40.676 ug/L	40.676 ppb	17:15:15
3	Sb 206.836†	45.2	8.6	2.9824 ug/L	2.9824 ppb	17:15:15
3	Se 196.026†	-23.0	3.2	2.0664 ug/L	2.0664 ppb	17:15:15
3	Si 251.611†	42351.6	40367.0	1320.5 ug/L	1320.5 ppb	17:14:55
3	Sn 189.927†	17.6	7.5	1.3611 ug/L	1.3611 ppb	17:15:15
3	Ti 334.940†	-1324.9	291.5	0.4550 ug/L	0.4550 ppb	17:14:55
3	Tl 190.801†	-35.0	0.5	0.1722 ug/L	0.1722 ppb	17:15:15
3	U 409.014†	-3060.7	656.3	20.605 ug/L	20.605 ppb	17:14:50
3	V 292.402†	-1492.1	149.3	1.1456 ug/L	1.1456 ppb	17:14:55
3	Zn 213.857†	994.5	231.8	2.2170 ug/L	2.2170 ppb	17:15:15
3	SiO2†	42491.0	40500.6	2825.9 ug/L	2825.9 ppb	17:15:31

Mean Data: 245690001|948038|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	857285.7	103.68 %	0.615			0.59%
Sc Radial	5066.2	103 %	0.3			0.28%
Y 371.029	681470.2	102.11 %	0.524			0.51%
Y RADIAL	5356.0	103.3 %	0.55			0.54%
Ag 328.068†	-73.3	-0.3717 ug/L	0.21583	-0.3717 ppb	0.21583	58.07%
Al 396.153Radial†	23.9	20.743 ug/L	10.0761	20.743 ppb	10.0761	48.58%
As 188.979†	8.9	3.8594 ug/L	2.39769	3.8594 ppb	2.39769	62.13%
B 249.677†	857.8	20.426 ug/L	1.4669	20.426 ppb	1.4669	7.18%
Ba 233.527†	42.9	0.3443 ug/L	0.07621	0.3443 ppb	0.07621	22.14%
Be 313.107†	-49.4	-0.0168 ug/L	0.01251	-0.0168 ppb	0.01251	74.39%
Ca 317.933Radial†	19.5	30.516 ug/L	2.5385	30.516 ppb	2.5385	8.32%
Cd 226.502†	22.3	0.2661 ug/L	0.04550	0.2661 ppb	0.04550	17.10%
Co 228.616†	6.3	0.1298 ug/L	0.10555	0.1298 ppb	0.10555	81.34%
Cr 267.716†	34.7	0.4050 ug/L	0.09334	0.4050 ppb	0.09334	23.04%
Cu 324.752†	61.1	0.1746 ug/L	0.20233	0.1746 ppb	0.20233	115.85%
Fe 238.204 Radial†	-0.8	-7.4913 ug/L	6.02260	-7.4913 ppb	6.02260	80.39%
K 766.490 Radial†	736.6	128.31 ug/L	7.621	128.31 ppb	7.621	5.94%

Mg 279.077 IEC†	3.2	105.80 ug/L	59.193	105.80 ppb	59.193	55.95%
Mn 257.610†	638.4	0.7102 ug/L	0.02416	0.7102 ppb	0.02416	3.40%
Mo 202.031†	3.5	0.2649 ug/L	0.90664	0.2649 ppb	0.90664	342.21%
Na 589.592 Radial†	781.8	254.80 ug/L	8.216	254.80 ppb	8.216	3.22%
Ni 231.604†	0.7	0.0189 ug/L	0.22370	0.0189 ppb	0.22370	>999.9%
P 214.914†	12.5	7.3663 ug/L	3.01518	7.3663 ppb	3.01518	40.93%
Pb 220.353†	16.4	2.0184 ug/L	1.17509	2.0184 ppb	1.17509	58.22%
S 181.975 Axial†	28.2	38.700 ug/L	1.7152	38.700 ppb	1.7152	4.43%
Sb 206.836†	8.5	2.9904 ug/L	0.06001	2.9904 ppb	0.06001	2.01%
Se 196.026†	5.2	3.3846 ug/L	3.53140	3.3846 ppb	3.53140	104.34%
Si 251.611†	40040.8	1309.8 ug/L	20.67	1309.8 ppb	20.67	1.58%
Sn 189.927†	8.2	1.4838 ug/L	0.57338	1.4838 ppb	0.57338	38.64%
Sr 421.552†	32.5	0.2125 ug/L	0.17936	0.2125 ppb	0.17936	84.41%
Ti 334.940†	332.6	0.5222 ug/L	0.12163	0.5222 ppb	0.12163	23.29%
Tl 190.801†	0.6	0.2009 ug/L	1.34415	0.2009 ppb	1.34415	668.91%
U 409.014†	731.0	22.952 ug/L	2.5538	22.952 ppb	2.5538	11.13%
V 292.402†	135.8	1.0640 ug/L	0.12207	1.0640 ppb	0.12207	11.47%
Zn 213.857†	216.0	2.0663 ug/L	0.13085	2.0663 ppb	0.13085	6.33%
SiO2†	40286.0	2810.9 ug/L	16.05	2810.9 ppb	16.05	0.57%

Sequence No.: 30

Sample ID: 1202030864|948038|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 52

Date Collected: 2/12/2010 17:17:42

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030864|948038|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4912.4	4912.4	99.8 %			17:19:35
1	Y RADIAL	5193.6	5193.6	100.1 %			17:19:35
1	Al 396.153Radial†	-140.9	22.1	19.098 ug/L		19.098 ppb	17:19:35
1	Ca 317.933Radial†	34.2	19.3	30.284 ug/L		30.284 ppb	17:19:55
1	Fe 238.204 Radial†	10.8	-0.6	-5.8186 ug/L		-5.8186 ppb	17:19:55
1	K 766.490 Radial†	3807.8	853.1	148.64 ug/L		148.64 ppb	17:19:35
1	Mg 279.077 IEC†	0.8	-0.4	-13.225 ug/L		-13.225 ppb	17:19:55
1	Na 589.592 Radial†	-456.2	693.1	225.87 ug/L		225.87 ppb	17:19:35
1	Sr 421.552†	2.8	-10.9	-0.0716 ug/L		-0.0716 ppb	17:19:35
1	Sc 361.383	845556.3	845556.3	102.26 %			17:20:51
1	Y 371.029	672332.1	672332.1	100.74 %			17:20:51
1	Ag 328.068†	248.1	-54.5	-0.2836 ug/L		-0.2836 ppb	17:20:57
1	As 188.979†	-27.5	3.8	1.6430 ug/L		1.6430 ppb	17:21:17
1	B 249.677†	205.7	796.2	18.959 ug/L		18.959 ppb	17:20:57
1	Ba 233.527†	35.5	45.0	0.3602 ug/L		0.3602 ppb	17:21:17
1	Be 313.107†	-4033.2	-243.8	-0.0879 ug/L		-0.0879 ppb	17:20:57
1	Cd 226.502†	-192.7	27.6	0.3280 ug/L		0.3280 ppb	17:21:17
1	Co 228.616†	-84.2	1.0	0.0228 ug/L		0.0228 ppb	17:21:17
1	Cr 267.716†	112.1	43.0	0.5015 ug/L		0.5015 ppb	17:21:17
1	Cu 324.752†	4748.2	-77.6	-0.2536 ug/L		-0.2536 ppb	17:20:57
1	Mn 257.610†	1544.2	1040.2	1.1655 ug/L		1.1655 ppb	17:21:17
1	Mo 202.031†	26.2	13.8	1.0384 ug/L		1.0384 ppb	17:21:17
1	Ni 231.604†	68.8	-9.7	-0.2491 ug/L		-0.2491 ppb	17:21:17
1	P 214.914†	257.6	4.8	2.9368 ug/L		2.9368 ppb	17:21:17
1	Pb 220.353†	-79.6	-10.7	-1.3048 ug/L		-1.3048 ppb	17:21:17
1	S 181.975 Axial†	73.6	24.2	33.165 ug/L		33.165 ppb	17:21:17
1	Sb 206.836†	33.1	-2.7	-0.8806 ug/L		-0.8806 ppb	17:21:17
1	Se 196.026†	-23.9	2.1	1.3287 ug/L		1.3287 ppb	17:21:17
1	Si 251.611†	41752.9	40299.0	1318.2 ug/L		1318.2 ppb	17:20:57
1	Sn 189.927†	25.4	15.4	2.7826 ug/L		2.7826 ppb	17:21:17
1	Ti 334.940†	-1296.0	303.5	0.4834 ug/L		0.4834 ppb	17:20:57
1	Tl 190.801†	-40.2	-5.0	-1.5507 ug/L		-1.5507 ppb	17:21:17
1	U 409.014†	-2830.4	844.1	26.503 ug/L		26.503 ppb	17:20:51
1	V 292.402†	-1507.4	116.1	0.9320 ug/L		0.9320 ppb	17:20:57
1	Zn 213.857†	819.7	73.0	0.7008 ug/L		0.7008 ppb	17:21:17
1	SiO2†	41850.5	40393.4	2818.4 ug/L		2818.4 ppb	17:22:23
2	Sc Radial	4953.3	4953.3	101 %			17:20:00
2	Y RADIAL	5243.0	5243.0	101.1 %			17:20:00
2	Al 396.153Radial†	-175.3	-11.0	-9.6086 ug/L		-9.6086 ppb	17:20:00
2	Ca 317.933Radial†	37.5	22.3	35.004 ug/L		35.004 ppb	17:20:20
2	Fe 238.204 Radial†	13.0	1.4	13.173 ug/L		13.173 ppb	17:20:20
2	K 766.490 Radial†	3805.5	819.3	142.74 ug/L		142.74 ppb	17:20:00
2	Mg 279.077 IEC†	0.3	-0.9	-29.027 ug/L		-29.027 ppb	17:20:20
2	Na 589.592 Radial†	-425.1	727.7	237.16 ug/L		237.16 ppb	17:20:00
2	Sr 421.552†	-6.8	-20.4	-0.1342 ug/L		-0.1342 ppb	17:20:00
2	Sc 361.383	855588.7	855588.7	103.47 %			17:21:22
2	Y 371.029	681149.8	681149.8	102.06 %			17:21:22
2	Ag 328.068†	178.1	-125.0	-0.6151 ug/L		-0.6151 ppb	17:21:27
2	As 188.979†	-29.1	2.5	1.1032 ug/L		1.1032 ppb	17:21:47
2	B 249.677†	274.7	860.5	20.488 ug/L		20.488 ppb	17:21:27
2	Ba 233.527†	38.0	47.0	0.3775 ug/L		0.3775 ppb	17:21:47
2	Be 313.107†	-3977.2	-143.4	-0.0513 ug/L		-0.0513 ppb	17:21:27
2	Cd 226.502†	-198.3	24.4	0.2876 ug/L		0.2876 ppb	17:21:47
2	Co 228.616†	-88.2	-1.8	-0.0365 ug/L		-0.0365 ppb	17:21:47
2	Cr 267.716†	83.9	14.4	0.1638 ug/L		0.1638 ppb	17:21:47
2	Cu 324.752†	4858.3	-25.7	-0.0917 ug/L		-0.0917 ppb	17:21:27
2	Mn 257.610†	1524.6	1003.6	1.1270 ug/L		1.1270 ppb	17:21:47
2	Mo 202.031†	27.5	14.7	1.1077 ug/L		1.1077 ppb	17:21:47
2	Ni 231.604†	43.2	-35.2	-0.9029 ug/L		-0.9029 ppb	17:21:47

2	P 214.914†	256.9	1.3	0.7597 ug/L	0.7597 ppb	17:21:47
2	Pb 220.353†	-64.1	5.2	0.6422 ug/L	0.6422 ppb	17:21:47
2	S 181.975 Axial†	71.9	21.7	29.845 ug/L	29.845 ppb	17:21:47
2	Sb 206.836†	46.7	10.0	3.5281 ug/L	3.5281 ppb	17:21:47
2	Se 196.026†	-26.1	0.2	0.1447 ug/L	0.1447 ppb	17:21:47
2	Si 251.611†	42088.4	40144.5	1313.2 ug/L	1313.2 ppb	17:21:27
2	Sn 189.927†	13.3	3.4	0.6151 ug/L	0.6151 ppb	17:21:47
2	Ti 334.940†	-1312.5	302.5	0.4847 ug/L	0.4847 ppb	17:21:27
2	Tl 190.801†	-43.6	-7.8	-2.4040 ug/L	-2.4040 ppb	17:21:47
2	U 409.014†	-2941.0	769.6	24.163 ug/L	24.163 ppb	17:21:22
2	V 292.402†	-1492.1	148.1	1.1647 ug/L	1.1647 ppb	17:21:27
2	Zn 213.857†	823.0	66.8	0.6426 ug/L	0.6426 ppb	17:21:47
2	SiO2†	42026.1	40083.3	2796.7 ug/L	2796.7 ppb	17:22:28
3	Sc Radial	4964.2	4964.2	101 %		17:20:25
3	Y RADIAL	5216.7	5216.7	100.6 %		17:20:25
3	Al 396.153Radial†	-141.9	22.5	19.470 ug/L	19.470 ppb	17:20:25
3	Ca 317.933Radial†	35.8	20.5	32.156 ug/L	32.156 ppb	17:20:45
3	Fe 238.204 Radial†	11.9	0.4	3.7242 ug/L	3.7242 ppb	17:20:45
3	K 766.490 Radial†	3806.4	811.8	141.44 ug/L	141.44 ppb	17:20:25
3	Mg 279.077 IEC†	5.0	3.8	124.43 ug/L	124.43 ppb	17:20:45
3	Na 589.592 Radial†	-381.4	772.0	251.60 ug/L	251.60 ppb	17:20:25
3	Sr 421.552†	34.0	20.0	0.1310 ug/L	0.1310 ppb	17:20:25
3	Sc 361.383	855784.1	855784.1	103.50 %		17:21:52
3	Y 371.029	680505.4	680505.4	101.96 %		17:21:52
3	Ag 328.068†	82.0	-217.9	-1.0651 ug/L	-1.0651 ppb	17:21:57
3	As 188.979†	-31.0	0.7	0.2927 ug/L	0.2927 ppb	17:22:17
3	B 249.677†	238.9	825.8	19.662 ug/L	19.662 ppb	17:21:57
3	Ba 233.527†	54.8	63.2	0.5070 ug/L	0.5070 ppb	17:22:17
3	Be 313.107†	-4044.3	-207.4	-0.0746 ug/L	-0.0746 ppb	17:21:57
3	Cd 226.502†	-192.1	30.4	0.3592 ug/L	0.3592 ppb	17:22:17
3	Co 228.616†	-85.1	1.1	0.0229 ug/L	0.0229 ppb	17:22:17
3	Cr 267.716†	115.5	44.9	0.5264 ug/L	0.5264 ppb	17:22:17
3	Cu 324.752†	4845.1	-39.6	-0.1346 ug/L	-0.1346 ppb	17:21:57
3	Mn 257.610†	1513.8	992.8	1.1077 ug/L	1.1077 ppb	17:22:17
3	Mo 202.031†	18.9	6.4	0.4843 ug/L	0.4843 ppb	17:22:17
3	Ni 231.604†	73.2	-6.3	-0.1606 ug/L	-0.1606 ppb	17:22:17
3	P 214.914†	255.3	-0.4	-0.1721 ug/L	-0.1721 ppb	17:22:17
3	Pb 220.353†	-63.8	5.5	0.6854 ug/L	0.6854 ppb	17:22:17
3	S 181.975 Axial†	72.6	22.3	30.641 ug/L	30.641 ppb	17:22:17
3	Sb 206.836†	44.2	7.6	2.6680 ug/L	2.6680 ppb	17:22:17
3	Se 196.026†	-24.7	1.5	0.9987 ug/L	0.9987 ppb	17:22:17
3	Si 251.611†	42617.2	40646.1	1329.6 ug/L	1329.6 ppb	17:21:57
3	Sn 189.927†	20.3	10.1	1.8292 ug/L	1.8292 ppb	17:22:17
3	Ti 334.940†	-1303.4	311.5	0.4864 ug/L	0.4864 ppb	17:21:57
3	Tl 190.801†	-37.8	-2.2	-0.6612 ug/L	-0.6612 ppb	17:22:17
3	U 409.014†	-2952.8	758.9	23.827 ug/L	23.827 ppb	17:21:52
3	V 292.402†	-1449.5	189.7	1.4698 ug/L	1.4698 ppb	17:21:57
3	Zn 213.857†	822.1	65.7	0.6292 ug/L	0.6292 ppb	17:22:17
3	SiO2†	41624.0	39685.5	2769.0 ug/L	2769.0 ppb	17:22:33

Mean Data: 1202030864|948038|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	852309.7	103.08 %	0.707			0.69%
Sc Radial	4943.3	100 %	0.6			0.55%
Y 371.029	677995.8	101.59 %	0.737			0.72%
Y RADIAL	5217.8	100.6 %	0.48			0.47%
Ag 328.068†	-132.5	-0.6546 ug/L	0.39228	-0.6546 ppb	0.39228	59.93%
Al 396.153Radial†	11.2	9.6530 ug/L	16.68207	9.6530 ppb	16.68207	172.82%
As 188.979†	2.3	1.0130 ug/L	0.67967	1.0130 ppb	0.67967	67.10%
B 249.677†	827.5	19.703 ug/L	0.7652	19.703 ppb	0.7652	3.88%
Ba 233.527†	51.7	0.4149 ug/L	0.08024	0.4149 ppb	0.08024	19.34%
Be 313.107†	-198.2	-0.0713 ug/L	0.01855	-0.0713 ppb	0.01855	26.03%
Ca 317.933Radial†	20.7	32.481 ug/L	2.3771	32.481 ppb	2.3771	7.32%
Cd 226.502†	27.5	0.3249 ug/L	0.03589	0.3249 ppb	0.03589	11.05%
Co 228.616†	0.1	0.0031 ug/L	0.03426	0.0031 ppb	0.03426	>999.9%
Cr 267.716†	34.1	0.3972 ug/L	0.20258	0.3972 ppb	0.20258	51.00%
Cu 324.752†	-47.6	-0.1600 ug/L	0.08388	-0.1600 ppb	0.08388	52.44%
Fe 238.204 Radial†	0.4	3.6930 ug/L	9.49604	3.6930 ppb	9.49604	257.14%
K 766.490 Radial†	828.1	144.27 ug/L	3.839	144.27 ppb	3.839	2.66%



Mg 279.077 IEC†	0.8	27.393 ug/L	84.4078	27.393 ppb	84.4078	308.13%
Mn 257.610†	1012.2	1.1334 ug/L	0.02943	1.1334 ppb	0.02943	2.60%
Mo 202.031†	11.6	0.8768 ug/L	0.34170	0.8768 ppb	0.34170	38.97%
Na 589.592 Radial†	730.9	238.21 ug/L	12.897	238.21 ppb	12.897	5.41%
Ni 231.604†	-17.1	-0.4375 ug/L	0.40543	-0.4375 ppb	0.40543	92.66%
P 214.914†	1.9	1.1748 ug/L	1.59548	1.1748 ppb	1.59548	135.81%
Pb 220.353†	0.0	0.0076 ug/L	1.13676	0.0076 ppb	1.13676	>999.9%
S 181.975 Axial†	22.8	31.217 ug/L	1.7333	31.217 ppb	1.7333	5.55%
Sb 206.836†	5.0	1.7718 ug/L	2.33697	1.7718 ppb	2.33697	131.90%
Se 196.026†	1.2	0.8240 ug/L	0.61101	0.8240 ppb	0.61101	74.15%
Si 251.611†	40363.2	1320.3 ug/L	8.41	1320.3 ppb	8.41	0.64%
Sn 189.927†	9.6	1.7423 ug/L	1.08639	1.7423 ppb	1.08639	62.35%
Sr 421.552†	-3.8	-0.0249 ug/L	0.13863	-0.0249 ppb	0.13863	555.81%
Ti 334.940†	305.8	0.4848 ug/L	0.00151	0.4848 ppb	0.00151	0.31%
Tl 190.801†	-5.0	-1.5387 ug/L	0.87148	-1.5387 ppb	0.87148	56.64%
U 409.014†	790.9	24.831 ug/L	1.4576	24.831 ppb	1.4576	5.87%
V 292.402†	151.3	1.1888 ug/L	0.26971	1.1888 ppb	0.26971	22.69%
Zn 213.857†	68.5	0.6576 ug/L	0.03807	0.6576 ppb	0.03807	5.79%
SiO2†	40054.0	2794.7 ug/L	24.75	2794.7 ppb	24.75	0.89%

Sequence No.: 31

Sample ID: 1202030865|948038|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 53

Date Collected: 2/12/2010 17:24:43

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030865|948038|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5012.7	5012.7	102 %		17:26:36
1	Y RADIAL	5278.5	5278.5	101.8 %		17:26:36
1	Al 396.153Radial†	5806.5	5866.0	5063.3 ug/L	5063.3 ppb	17:26:36
1	Ca 317.933Radial†	3243.4	3170.5	4969.4 ug/L	4969.4 ppb	17:26:56
1	Fe 238.204 Radial†	579.1	557.3	5091.9 ug/L	5091.9 ppb	17:26:56
1	K 766.490 Radial†	33415.7	29855.6	5200.7 ug/L	5200.7 ppb	17:26:36
1	Mg 279.077 IEC†	155.8	151.8	4992.6 ug/L	4992.6 ppb	17:26:56
1	Na 589.592 Radial†	16943.3	17790.8	5798.0 ug/L	5798.0 ppb	17:26:36
1	Sr 421.552†	82080.8	80600.4	528.29 ug/L	528.29 ppb	17:26:36
1	Sc 361.383	862605.0	862605.0	104.32 %		17:27:55
1	Y 371.029	682086.9	682086.9	102.20 %		17:27:55
1	Ag 328.068†	106495.5	101787.0	494.79 ug/L	494.79 ppb	17:27:55
1	As 188.979†	1127.4	1111.4	483.64 ug/L	483.64 ppb	17:28:15
1	B 249.677†	21494.7	21199.4	502.57 ug/L	502.57 ppb	17:27:55
1	Ba 233.527†	65430.5	62730.4	501.29 ug/L	501.29 ppb	17:27:55
1	Be 313.107†	1372251.0	1319107.7	482.92 ug/L	482.92 ppb	17:27:55
1	Cd 226.502†	43309.7	41731.7	487.02 ug/L	487.02 ppb	17:27:55
1	Co 228.616†	24318.3	23394.3	480.97 ug/L	480.97 ppb	17:28:15
1	Cr 267.716†	42918.3	41073.8	488.73 ug/L	488.73 ppb	17:27:55
1	Cu 324.752†	175379.0	163393.2	502.27 ug/L	502.27 ppb	17:27:55
1	Mn 257.610†	462314.7	442694.1	496.33 ug/L	496.33 ppb	17:27:55
1	Mo 202.031†	6742.8	6451.7	486.48 ug/L	486.48 ppb	17:28:15
1	Ni 231.604†	19846.7	18947.5	485.32 ug/L	485.32 ppb	17:28:15
1	P 214.914†	1266.9	967.4	471.53 ug/L	471.53 ppb	17:28:15
1	Pb 220.353†	4091.8	3989.5	490.65 ug/L	490.65 ppb	17:28:15
1	S 181.975 Axial†	3788.7	3584.0	4917.1 ug/L	4917.1 ppb	17:28:15
1	Sb 206.836†	1569.0	1468.9	528.59 ug/L	528.59 ppb	17:28:15
1	Se 196.026†	724.3	719.7	488.33 ug/L	488.33 ppb	17:28:15
1	Si 251.611†	197473.5	188762.0	6168.6 ug/L	6168.6 ppb	17:27:55
1	Sn 189.927†	2912.0	2781.9	503.93 ug/L	503.93 ppb	17:28:15
1	Ti 334.940†	330171.2	318065.2	513.35 ug/L	513.35 ppb	17:27:55
1	Tl 190.801†	1587.5	1556.0	486.01 ug/L	486.01 ppb	17:28:15
1	U 409.014†	13485.7	16539.0	517.63 ug/L	517.63 ppb	17:27:55
1	V 292.402†	67491.6	66286.1	501.34 ug/L	501.34 ppb	17:27:55
1	Zn 213.857†	53227.0	50293.5	476.44 ug/L	476.44 ppb	17:27:55
1	SiO2†	194751.2	186151.5	12975 ug/L	12975 ppb	17:29:15
2	Sc Radial	4953.5	4953.5	101 %		17:27:01
2	Y RADIAL	5265.4	5265.4	101.5 %		17:27:01
2	Al 396.153Radial†	5667.7	5796.1	5002.2 ug/L	5002.2 ppb	17:27:01
2	Ca 317.933Radial†	3317.7	3282.3	5144.6 ug/L	5144.6 ppb	17:27:21
2	Fe 238.204 Radial†	599.9	584.8	5342.5 ug/L	5342.5 ppb	17:27:21
2	K 766.490 Radial†	32932.2	29766.8	5185.2 ug/L	5185.2 ppb	17:27:01
2	Mg 279.077 IEC†	164.0	161.8	5320.6 ug/L	5320.6 ppb	17:27:21
2	Na 589.592 Radial†	16636.6	17684.5	5763.3 ug/L	5763.3 ppb	17:27:01
2	Sr 421.552†	80245.8	79738.8	522.64 ug/L	522.64 ppb	17:27:01
2	Sc 361.383	851776.2	851776.2	103.01 %		17:28:22
2	Y 371.029	673304.4	673304.4	100.88 %		17:28:22
2	Ag 328.068†	105213.8	101840.5	495.14 ug/L	495.14 ppb	17:28:22
2	As 188.979†	1133.9	1131.4	492.31 ug/L	492.31 ppb	17:28:42
2	B 249.677†	21230.9	21205.2	502.64 ug/L	502.64 ppb	17:28:22
2	Ba 233.527†	64617.2	62738.3	501.36 ug/L	501.36 ppb	17:28:22
2	Be 313.107†	1353928.0	1318043.4	482.53 ug/L	482.53 ppb	17:28:22
2	Cd 226.502†	42710.8	41678.2	486.37 ug/L	486.37 ppb	17:28:22
2	Co 228.616†	24425.6	23794.8	489.23 ug/L	489.23 ppb	17:28:42
2	Cr 267.716†	42417.1	41110.3	489.17 ug/L	489.17 ppb	17:28:22
2	Cu 324.752†	172916.8	163140.3	501.50 ug/L	501.50 ppb	17:28:22
2	Mn 257.610†	457039.3	443206.9	496.92 ug/L	496.92 ppb	17:28:22
2	Mo 202.031†	6787.3	6577.0	495.95 ug/L	495.95 ppb	17:28:42
2	Ni 231.604†	19909.1	19250.0	493.07 ug/L	493.07 ppb	17:28:42

2	P 214.914†	1289.7	1005.0	493.69 ug/L	493.69 ppb	17:28:42
2	Pb 220.353†	4112.4	4059.3	499.20 ug/L	499.20 ppb	17:28:42
2	S 181.975 Axial†	3789.7	3631.1	4981.8 ug/L	4981.8 ppb	17:28:42
2	Sb 206.836†	1577.3	1496.1	538.40 ug/L	538.40 ppb	17:28:42
2	Se 196.026†	733.9	737.9	501.05 ug/L	501.05 ppb	17:28:42
2	Si 251.611†	194977.8	188745.9	6168.0 ug/L	6168.0 ppb	17:28:22
2	Sn 189.927†	2935.8	2840.5	514.57 ug/L	514.57 ppb	17:28:42
2	Ti 334.940†	326037.6	318076.1	513.37 ug/L	513.37 ppb	17:28:22
2	Tl 190.801†	1582.4	1570.5	490.46 ug/L	490.46 ppb	17:28:42
2	U 409.014†	13217.6	16443.1	514.58 ug/L	514.58 ppb	17:28:22
2	V 292.402†	66697.4	66337.6	501.82 ug/L	501.82 ppb	17:28:22
2	Zn 213.857†	52482.1	50219.1	475.65 ug/L	475.65 ppb	17:28:22
2	SiO2†	195945.3	189684.1	13222 ug/L	13222 ppb	17:29:21
3	Sc Radial	5017.0	5017.0	102 %		17:27:26
3	Y RADIAL	5309.5	5309.5	102.4 %		17:27:26
3	Al 396.153Radial†	5715.9	5772.1	4981.7 ug/L	4981.7 ppb	17:27:26
3	Ca 317.933Radial†	3296.0	3219.3	5045.9 ug/L	5045.9 ppb	17:27:46
3	Fe 238.204 Radial†	590.4	567.9	5188.4 ug/L	5188.4 ppb	17:27:46
3	K 766.490 Radial†	32961.9	29381.7	5118.1 ug/L	5118.1 ppb	17:27:26
3	Mg 279.077 IEC†	160.0	155.8	5125.0 ug/L	5125.0 ppb	17:27:46
3	Na 589.592 Radial†	16673.9	17511.9	5707.1 ug/L	5707.1 ppb	17:27:26
3	Sr 421.552†	80814.3	79287.3	519.68 ug/L	519.68 ppb	17:27:26
3	Sc 361.383	861453.6	861453.6	104.18 %		17:28:50
3	Y 371.029	679855.1	679855.1	101.87 %		17:28:50
3	Ag 328.068†	106331.8	101766.3	494.73 ug/L	494.73 ppb	17:28:50
3	As 188.979†	1132.3	1117.5	486.30 ug/L	486.30 ppb	17:29:10
3	B 249.677†	21525.1	21256.0	503.90 ug/L	503.90 ppb	17:28:50
3	Ba 233.527†	65534.6	62914.1	502.76 ug/L	502.76 ppb	17:28:50
3	Be 313.107†	1369891.4	1318601.1	482.74 ug/L	482.74 ppb	17:28:50
3	Cd 226.502†	43437.5	41909.9	489.09 ug/L	489.09 ppb	17:28:50
3	Co 228.616†	24383.6	23488.1	482.91 ug/L	482.91 ppb	17:29:10
3	Cr 267.716†	42927.4	41137.5	489.49 ug/L	489.49 ppb	17:28:50
3	Cu 324.752†	174890.2	163148.7	501.52 ug/L	501.52 ppb	17:28:50
3	Mn 257.610†	462677.0	443634.2	497.39 ug/L	497.39 ppb	17:28:50
3	Mo 202.031†	6784.5	6500.3	490.16 ug/L	490.16 ppb	17:29:10
3	Ni 231.604†	19919.8	19043.2	487.77 ug/L	487.77 ppb	17:29:10
3	P 214.914†	1282.7	984.1	481.51 ug/L	481.51 ppb	17:29:10
3	Pb 220.353†	4089.8	3992.8	491.04 ug/L	491.04 ppb	17:29:10
3	S 181.975 Axial†	3790.9	3591.0	4926.7 ug/L	4926.7 ppb	17:29:10
3	Sb 206.836†	1561.0	1463.2	526.77 ug/L	526.77 ppb	17:29:10
3	Se 196.026†	735.5	731.4	496.31 ug/L	496.31 ppb	17:29:10
3	Si 251.611†	197557.7	189095.9	6179.5 ug/L	6179.5 ppb	17:28:50
3	Sn 189.927†	2943.1	2815.5	510.02 ug/L	510.02 ppb	17:29:10
3	Ti 334.940†	329701.4	318037.3	513.31 ug/L	513.31 ppb	17:28:50
3	Tl 190.801†	1591.4	1561.8	487.80 ug/L	487.80 ppb	17:29:10
3	U 409.014†	13394.4	16468.6	515.40 ug/L	515.40 ppb	17:28:50
3	V 292.402†	67417.7	66301.6	501.49 ug/L	501.49 ppb	17:28:50
3	Zn 213.857†	53191.4	50327.6	476.74 ug/L	476.74 ppb	17:28:50
3	SiO2†	196039.6	187637.8	13079 ug/L	13079 ppb	17:29:26

Mean Data: 1202030865|948038|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	858611.6	103.84 %	0.719			0.69%
Sc Radial	4994.4	101 %	0.7			0.71%
Y 371.029	678415.5	101.65 %	0.684			0.67%
Y RADIAL	5284.5	101.9 %	0.44			0.43%
Ag 328.068†	101797.9	494.89 ug/L	0.221	494.89 ppb	0.221	0.04%
Al 396.153Radial†	5811.4	5015.7 ug/L	42.45	5015.7 ppb	42.45	0.85%
As 188.979†	1120.1	487.42 ug/L	4.437	487.42 ppb	4.437	0.91%
B 249.677†	21220.2	503.04 ug/L	0.746	503.04 ppb	0.746	0.15%
Ba 233.527†	62794.3	501.80 ug/L	0.827	501.80 ppb	0.827	0.16%
Be 313.107†	1318584.1	482.73 ug/L	0.194	482.73 ppb	0.194	0.04%
Ca 317.933Radial†	3224.1	5053.3 ug/L	87.85	5053.3 ppb	87.85	1.74%
Cd 226.502†	41773.3	487.49 ug/L	1.420	487.49 ppb	1.420	0.29%
Co 228.616†	23559.1	484.37 ug/L	4.316	484.37 ppb	4.316	0.89%
Cr 267.716†	41107.2	489.13 ug/L	0.382	489.13 ppb	0.382	0.08%
Cu 324.752†	163227.4	501.76 ug/L	0.435	501.76 ppb	0.435	0.09%
Fe 238.204 Radial†	570.0	5207.6 ug/L	126.39	5207.6 ppb	126.39	2.43%
K 766.490 Radial†	29668.0	5168.0 ug/L	43.91	5168.0 ppb	43.91	0.85%

Mg 279.077 IEC†	156.4	5146.1 ug/L	165.03	5146.1 ppb	165.03	3.21%
Mn 257.610†	443178.4	496.88 ug/L	0.530	496.88 ppb	0.530	0.11%
Mo 202.031†	6509.7	490.86 ug/L	4.770	490.86 ppb	4.770	0.97%
Na 589.592 Radial†	17662.4	5756.1 ug/L	45.86	5756.1 ppb	45.86	0.80%
Ni 231.604†	19080.2	488.72 ug/L	3.961	488.72 ppb	3.961	0.81%
P 214.914†	985.5	482.24 ug/L	11.101	482.24 ppb	11.101	2.30%
Pb 220.353†	4013.9	493.63 ug/L	4.828	493.63 ppb	4.828	0.98%
S 181.975 Axial†	3602.0	4941.8 ug/L	34.91	4941.8 ppb	34.91	0.71%
Sb 206.836†	1476.1	531.25 ug/L	6.255	531.25 ppb	6.255	1.18%
Se 196.026†	729.6	495.23 ug/L	6.426	495.23 ppb	6.426	1.30%
Si 251.611†	188867.9	6172.0 ug/L	6.47	6172.0 ppb	6.47	0.10%
Sn 189.927†	2812.6	509.51 ug/L	5.338	509.51 ppb	5.338	1.05%
Sr 421.552†	79875.5	523.54 ug/L	4.373	523.54 ppb	4.373	0.84%
Ti 334.940†	318059.5	513.34 ug/L	0.031	513.34 ppb	0.031	0.01%
Tl 190.801†	1562.8	488.09 ug/L	2.239	488.09 ppb	2.239	0.46%
U 409.014†	16483.6	515.87 ug/L	1.574	515.87 ppb	1.574	0.31%
V 292.402†	66308.4	501.55 ug/L	0.246	501.55 ppb	0.246	0.05%
Zn 213.857†	50280.1	476.28 ug/L	0.566	476.28 ppb	0.566	0.12%
SiO2†	187824.4	13092 ug/L	123.6	13092 ppb	123.6	0.94%

Sequence No.: 32

Sample ID: 1202030866|948038|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 54

Date Collected: 2/12/2010 17:31:36

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202030866|948038|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5040.5	5040.5	102 %		17:33:29
1	Y RADIAL	5339.6	5339.6	103.0 %		17:33:29
1	Al 396.153Radial†	-157.3	9.6	8.2548 ug/L	8.2548 ppb	17:33:29
1	Ca 317.933Radial†	23.7	8.2	12.839 ug/L	12.839 ppb	17:33:49
1	Fe 238.204 Radial†	11.8	0.1	0.7976 ug/L	0.7976 ppb	17:33:49
1	K 766.490 Radial†	3124.1	88.4	15.340 ug/L	15.340 ppb	17:33:29
1	Mg 279.077 IEC†	2.3	1.1	35.574 ug/L	35.574 ppb	17:33:49
1	Na 589.592 Radial†	-697.3	469.2	152.91 ug/L	152.91 ppb	17:33:29
1	Sr 421.552†	17.4	3.3	0.0218 ug/L	0.0218 ppb	17:33:29
1	Sc 361.383	839319.2	839319.2	101.51 %		17:34:46
1	Y 371.029	670108.6	670108.6	100.40 %		17:34:46
1	Ag 328.068†	284.7	-16.6	-0.0942 ug/L	-0.0942 ppb	17:34:46
1	As 188.979†	-22.7	8.3	3.5838 ug/L	3.5838 ppb	17:35:06
1	B 249.677†	-341.8	258.3	6.1491 ug/L	6.1491 ppb	17:35:06
1	Ba 233.527†	-2.5	7.8	0.0633 ug/L	0.0633 ppb	17:35:06
1	Be 313.107†	-3879.4	-121.6	-0.0439 ug/L	-0.0439 ppb	17:34:46
1	Cd 226.502†	-187.0	31.8	0.3755 ug/L	0.3755 ppb	17:35:06
1	Co 228.616†	-79.2	5.3	0.1113 ug/L	0.1113 ppb	17:35:06
1	Cr 267.716†	96.9	28.8	0.3355 ug/L	0.3355 ppb	17:35:06
1	Cu 324.752†	4807.0	14.8	0.0346 ug/L	0.0346 ppb	17:34:46
1	Mn 257.610†	631.0	151.7	0.1686 ug/L	0.1686 ppb	17:35:06
1	Mo 202.031†	23.3	11.1	0.8397 ug/L	0.8397 ppb	17:35:06
1	Ni 231.604†	79.6	1.4	0.0350 ug/L	0.0350 ppb	17:35:06
1	P 214.914†	248.2	-2.5	-1.4977 ug/L	-1.4977 ppb	17:35:06
1	Pb 220.353†	-61.4	6.7	0.8267 ug/L	0.8267 ppb	17:35:06
1	S 181.975 Axial†	46.0	-2.4	-3.3243 ug/L	-3.3243 ppb	17:35:06
1	Sb 206.836†	46.0	10.2	3.5883 ug/L	3.5883 ppb	17:35:06
1	Se 196.026†	-23.6	2.1	1.3848 ug/L	1.3848 ppb	17:35:06
1	Si 251.611†	8815.7	8153.6	266.70 ug/L	266.70 ppb	17:34:46
1	Sn 189.927†	14.9	5.2	0.9360 ug/L	0.9360 ppb	17:35:06
1	Ti 334.940†	-1445.1	147.3	0.2277 ug/L	0.2277 ppb	17:34:46
1	Tl 190.801†	-31.2	3.5	1.0987 ug/L	1.0987 ppb	17:35:06
1	U 409.014†	-3022.0	634.7	19.928 ug/L	19.928 ppb	17:34:46
1	V 292.402†	-1536.1	76.8	0.6237 ug/L	0.6237 ppb	17:34:46
1	Zn 213.857†	769.6	29.6	0.2825 ug/L	0.2825 ppb	17:35:06
1	SiO2†	8858.2	8194.4	571.74 ug/L	571.74 ppb	17:36:02
2	Sc Radial	5005.4	5005.4	102 %		17:33:54
2	Y RADIAL	5281.8	5281.8	101.8 %		17:33:54
2	Al 396.153Radial†	-170.9	-4.9	-4.2845 ug/L	-4.2845 ppb	17:33:54
2	Ca 317.933Radial†	28.2	12.7	19.970 ug/L	19.970 ppb	17:34:14
2	Fe 238.204 Radial†	10.5	-1.1	-9.9294 ug/L	-9.9294 ppb	17:34:14
2	K 766.490 Radial†	3009.0	-3.4	-0.6609 ug/L	-0.6609 ppb	17:33:54
2	Mg 279.077 IEC†	3.4	2.1	69.963 ug/L	69.963 ppb	17:34:14
2	Na 589.592 Radial†	-709.9	452.0	147.31 ug/L	147.31 ppb	17:33:54
2	Sr 421.552†	13.8	-0.1	-0.0008 ug/L	-0.0008 ppb	17:33:54
2	Sc 361.383	833172.1	833172.1	100.76 %		17:35:11
2	Y 371.029	665169.1	665169.1	99.665 %		17:35:11
2	Ag 328.068†	204.2	-94.4	-0.4675 ug/L	-0.4675 ppb	17:35:11
2	As 188.979†	-34.0	-3.0	-1.3173 ug/L	-1.3173 ppb	17:35:31
2	B 249.677†	-328.2	269.3	6.4149 ug/L	6.4149 ppb	17:35:31
2	Ba 233.527†	-12.4	-2.0	-0.0146 ug/L	-0.0146 ppb	17:35:31
2	Be 313.107†	-3757.2	-28.5	-0.0097 ug/L	-0.0097 ppb	17:35:11
2	Cd 226.502†	-195.6	21.9	0.2594 ug/L	0.2594 ppb	17:35:31
2	Co 228.616†	-84.0	0.0	0.0021 ug/L	0.0021 ppb	17:35:31
2	Cr 267.716†	76.6	9.4	0.1075 ug/L	0.1075 ppb	17:35:31
2	Cu 324.752†	4767.4	10.4	0.0242 ug/L	0.0242 ppb	17:35:11
2	Mn 257.610†	624.2	149.6	0.1638 ug/L	0.1638 ppb	17:35:31
2	Mo 202.031†	26.7	14.6	1.1019 ug/L	1.1019 ppb	17:35:31
2	Ni 231.604†	71.7	-5.8	-0.1499 ug/L	-0.1499 ppb	17:35:31

2	P 214.914†	238.2	-10.6	-6.2651 ug/L	-6.2651 ppb	17:35:31
2	Pb 220.353†	-78.5	-10.7	-1.3097 ug/L	-1.3097 ppb	17:35:31
2	S 181.975 Axial†	52.6	4.4	6.1071 ug/L	6.1071 ppb	17:35:31
2	Sb 206.836†	36.4	1.0	0.3902 ug/L	0.3902 ppb	17:35:31
2	Se 196.026†	-23.7	1.8	1.1788 ug/L	1.1788 ppb	17:35:31
2	Si 251.611†	8792.2	8194.4	268.03 ug/L	268.03 ppb	17:35:11
2	Sn 189.927†	10.1	0.5	0.1006 ug/L	0.1006 ppb	17:35:31
2	Ti 334.940†	-1402.4	179.1	0.2803 ug/L	0.2803 ppb	17:35:11
2	Tl 190.801†	-37.9	-3.3	-1.0297 ug/L	-1.0297 ppb	17:35:31
2	U 409.014†	-3212.6	423.6	13.301 ug/L	13.301 ppb	17:35:11
2	V 292.402†	-1500.7	100.8	0.7962 ug/L	0.7962 ppb	17:35:11
2	Zn 213.857†	773.8	39.3	0.3784 ug/L	0.3784 ppb	17:35:31
2	SiO2†	8688.3	8090.3	564.46 ug/L	564.46 ppb	17:36:07
3	Sc Radial	4939.4	4939.4	100 %		17:34:19
3	Y RADIAL	5238.5	5238.5	101.0 %		17:34:19
3	Al 396.153Radial†	-140.2	23.5	20.400 ug/L	20.400 ppb	17:34:19
3	Ca 317.933Radial†	26.7	11.7	18.267 ug/L	18.267 ppb	17:34:39
3	Fe 238.204 Radial†	7.6	-3.9	-35.191 ug/L	-35.191 ppb	17:34:39
3	K 766.490 Radial†	3054.1	81.0	14.049 ug/L	14.049 ppb	17:34:19
3	Mg 279.077 IEC†	1.9	0.7	22.696 ug/L	22.696 ppb	17:34:39
3	Na 589.592 Radial†	-664.8	487.6	158.92 ug/L	158.92 ppb	17:34:19
3	Sr 421.552†	17.4	3.6	0.0237 ug/L	0.0237 ppb	17:34:19
3	Sc 361.383	847207.6	847207.6	102.46 %		17:35:36
3	Y 371.029	675424.3	675424.3	101.20 %		17:35:36
3	Ag 328.068†	175.0	-126.3	-0.6284 ug/L	-0.6284 ppb	17:35:36
3	As 188.979†	-18.9	12.2	5.2572 ug/L	5.2572 ppb	17:35:56
3	B 249.677†	-317.9	284.7	6.7856 ug/L	6.7856 ppb	17:35:56
3	Ba 233.527†	0.3	10.6	0.0859 ug/L	0.0859 ppb	17:35:56
3	Be 313.107†	-3936.5	-141.7	-0.0513 ug/L	-0.0513 ppb	17:35:36
3	Cd 226.502†	-182.0	38.4	0.4548 ug/L	0.4548 ppb	17:35:56
3	Co 228.616†	-94.3	-8.7	-0.1784 ug/L	-0.1784 ppb	17:35:56
3	Cr 267.716†	77.2	8.7	0.0993 ug/L	0.0993 ppb	17:35:56
3	Cu 324.752†	4783.9	-51.8	-0.1685 ug/L	-0.1685 ppb	17:35:36
3	Mn 257.610†	626.3	141.4	0.1540 ug/L	0.1540 ppb	17:35:56
3	Mo 202.031†	11.7	-0.5	-0.0387 ug/L	-0.0387 ppb	17:35:56
3	Ni 231.604†	65.9	-12.7	-0.3258 ug/L	-0.3258 ppb	17:35:56
3	P 214.914†	249.0	-4.0	-2.2770 ug/L	-2.2770 ppb	17:35:56
3	Pb 220.353†	-60.6	8.0	0.9890 ug/L	0.9890 ppb	17:35:56
3	S 181.975 Axial†	44.6	-4.2	-5.7758 ug/L	-5.7758 ppb	17:35:56
3	Sb 206.836†	40.8	4.7	1.6186 ug/L	1.6186 ppb	17:35:56
3	Se 196.026†	-23.6	2.4	1.4406 ug/L	1.4406 ppb	17:35:56
3	Si 251.611†	8864.9	8120.8	265.64 ug/L	265.64 ppb	17:35:36
3	Sn 189.927†	8.9	-0.8	-0.1336 ug/L	-0.1336 ppb	17:35:56
3	Ti 334.940†	-1484.7	121.9	0.1914 ug/L	0.1914 ppb	17:35:36
3	Tl 190.801†	-30.1	5.0	1.5412 ug/L	1.5412 ppb	17:35:56
3	U 409.014†	-3265.2	425.1	13.351 ug/L	13.351 ppb	17:35:36
3	V 292.402†	-1467.4	158.0	1.2098 ug/L	1.2098 ppb	17:35:36
3	Zn 213.857†	762.8	15.9	0.1597 ug/L	0.1597 ppb	17:35:56
3	SiO2†	8864.2	8119.0	566.50 ug/L	566.50 ppb	17:36:12

Mean Data: 1202030866|948038|5

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Sc 361.383	839899.6	101.58 %	0.851			0.84%
Sc Radial	4995.1	101 %	1.0			1.03%
Y 371.029	670234.0	100.42 %	0.768			0.77%
Y RADIAL	5286.6	101.9 %	0.98			0.96%
Ag 328.068†	-79.1	-0.3967 ug/L	0.27405	-0.3967 ppb	0.27405	69.08%
Al 396.153Radial†	9.4	8.1234 ug/L	12.34280	8.1234 ppb	12.34280	151.94%
As 188.979†	5.8	2.5079 ug/L	3.41675	2.5079 ppb	3.41675	136.24%
B 249.677†	270.8	6.4498 ug/L	0.31969	6.4498 ppb	0.31969	4.96%
Ba 233.527†	5.5	0.0449 ug/L	0.05270	0.0449 ppb	0.05270	117.44%
Be 313.107†	-97.3	-0.0350 ug/L	0.02217	-0.0350 ppb	0.02217	63.38%
Ca 317.933Radial†	10.9	17.026 ug/L	3.7240	17.026 ppb	3.7240	21.87%
Cd 226.502†	30.7	0.3632 ug/L	0.09827	0.3632 ppb	0.09827	27.05%
Co 228.616†	-1.1	-0.0217 ug/L	0.14631	-0.0217 ppb	0.14631	674.91%
Cr 267.716†	15.7	0.1808 ug/L	0.13406	0.1808 ppb	0.13406	74.16%
Cu 324.752†	-8.8	-0.0366 ug/L	0.11440	-0.0366 ppb	0.11440	312.85%
Fe 238.204 Radial†	-1.6	-14.774 ug/L	18.4769	-14.774 ppb	18.4769	125.06%
K 766.490 Radial†	55.3	9.5762 ug/L	8.88906	9.5762 ppb	8.88906	92.82%

Mg 279.077 IEC†	1.3	42.744 ug/L	24.4356	42.744 ppb	24.4356	57.17%
Mn 257.610†	147.6	0.1621 ug/L	0.00745	0.1621 ppb	0.00745	4.59%
Mo 202.031†	8.4	0.6343 ug/L	0.59739	0.6343 ppb	0.59739	94.18%
Na 589.592 Radial†	469.6	153.05 ug/L	5.805	153.05 ppb	5.805	3.79%
Ni 231.604†	-5.7	-0.1469 ug/L	0.18042	-0.1469 ppb	0.18042	122.82%
P 214.914†	-5.7	-3.3466 ug/L	2.55738	-3.3466 ppb	2.55738	76.42%
Pb 220.353†	1.3	0.1686 ug/L	1.28288	0.1686 ppb	1.28288	760.76%
S 181.975 Axial†	-0.7	-0.9977 ug/L	6.27380	-0.9977 ppb	6.27380	628.84%
Sb 206.836†	5.3	1.8657 ug/L	1.61328	1.8657 ppb	1.61328	86.47%
Se 196.026†	2.1	1.3348 ug/L	0.13792	1.3348 ppb	0.13792	10.33%
Si 251.611†	8156.3	266.79 ug/L	1.200	266.79 ppb	1.200	0.45%
Sn 189.927†	1.7	0.3010 ug/L	0.56228	0.3010 ppb	0.56228	186.80%
Sr 421.552†	2.3	0.0149 ug/L	0.01365	0.0149 ppb	0.01365	91.73%
Ti 334.940†	149.4	0.2331 ug/L	0.04467	0.2331 ppb	0.04467	19.16%
Tl 190.801†	1.7	0.5367 ug/L	1.37452	0.5367 ppb	1.37452	256.09%
U 409.014†	494.5	15.527 ug/L	3.8120	15.527 ppb	3.8120	24.55%
V 292.402†	111.9	0.8766 ug/L	0.30121	0.8766 ppb	0.30121	34.36%
Zn 213.857†	28.3	0.2735 ug/L	0.10960	0.2735 ppb	0.10960	40.07%
SiO2†	8134.6	567.57 ug/L	3.754	567.57 ppb	3.754	0.66%

Sequence No.: 33  
 Sample ID: 245690002|948038|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 55  
 Date Collected: 2/12/2010 17:38:22  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: 245690002|948038|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4967.7	4967.7	101 %		17:40:15
1	Y RADIAL	5268.4	5268.4	101.6 %		17:40:15
1	Al 396.153Radial†	-23.6	139.9	121.23 ug/L	121.23 ppb	17:40:15
1	Ca 317.933Radial†	74.6	59.0	92.508 ug/L	92.508 ppb	17:40:35
1	Fe 238.204 Radial†	18.6	7.0	63.727 ug/L	63.727 ppb	17:40:35
1	K 766.490 Radial†	4125.1	1125.1	196.04 ug/L	196.04 ppb	17:40:15
1	Mg 279.077 IEC†	4.8	3.5	116.35 ug/L	116.35 ppb	17:40:35
1	Na 589.592 Radial†	-372.3	781.3	254.62 ug/L	254.62 ppb	17:40:15
1	Sr 421.552†	83.5	69.1	0.4519 ug/L	0.4519 ppb	17:40:15
1	Sc 361.383	846522.9	846522.9	102.38 %		17:41:32
1	Y 371.029	675329.1	675329.1	101.19 %		17:41:32
1	Ag 328.068†	190.5	-111.1	-0.5281 ug/L	-0.5281 ppb	17:41:32
1	As 188.979†	-25.5	5.7	2.5087 ug/L	2.5087 ppb	17:41:52
1	B 249.677†	226.0	815.7	19.413 ug/L	19.413 ppb	17:41:32
1	Ba 233.527†	230.9	235.8	1.8840 ug/L	1.8840 ppb	17:41:52
1	Be 313.107†	-3761.7	26.0	0.0172 ug/L	0.0172 ppb	17:41:32
1	Cd 226.502†	-192.5	28.0	0.3251 ug/L	0.3251 ppb	17:41:52
1	Co 228.616†	-83.8	1.5	0.0261 ug/L	0.0261 ppb	17:41:52
1	Cr 267.716†	175.5	104.8	1.2408 ug/L	1.2408 ppb	17:41:52
1	Cu 324.752†	5068.2	229.6	0.6981 ug/L	0.6981 ppb	17:41:32
1	Mn 257.610†	5521.8	4923.7	5.5185 ug/L	5.5185 ppb	17:41:32
1	Mo 202.031†	25.3	12.9	0.9773 ug/L	0.9773 ppb	17:41:52
1	Ni 231.604†	111.5	31.9	0.8183 ug/L	0.8183 ppb	17:41:52
1	P 214.914†	265.1	11.9	6.8713 ug/L	6.8713 ppb	17:41:52
1	Pb 220.353†	-64.4	4.3	0.5476 ug/L	0.5476 ppb	17:41:52
1	S 181.975 Axial†	79.4	29.7	40.790 ug/L	40.790 ppb	17:41:52
1	Sb 206.836†	44.0	7.8	2.7415 ug/L	2.7415 ppb	17:41:52
1	Se 196.026†	-18.2	7.6	5.1744 ug/L	5.1744 ppb	17:41:52
1	Si 251.611†	50307.2	48608.1	1590.0 ug/L	1590.0 ppb	17:41:32
1	Sn 189.927†	13.0	3.2	0.5911 ug/L	0.5911 ppb	17:41:52
1	Ti 334.940†	542.7	2101.0	3.3856 ug/L	3.3856 ppb	17:41:32
1	Tl 190.801†	-45.9	-10.5	-3.2108 ug/L	-3.2108 ppb	17:41:52
1	U 409.014†	-3043.8	638.8	20.046 ug/L	20.046 ppb	17:41:32
1	V 292.402†	-1472.3	152.0	1.1759 ug/L	1.1759 ppb	17:41:32
1	Zn 213.857†	1033.1	280.5	2.6670 ug/L	2.6670 ppb	17:41:52
1	SiO2†	49807.5	48118.9	3357.4 ug/L	3357.4 ppb	17:42:48
2	Sc Radial	5013.0	5013.0	102 %		17:40:40
2	Y RADIAL	5281.1	5281.1	101.8 %		17:40:40
2	Al 396.153Radial†	-28.5	135.3	117.26 ug/L	117.26 ppb	17:40:40
2	Ca 317.933Radial†	73.1	56.8	89.048 ug/L	89.048 ppb	17:41:00
2	Fe 238.204 Radial†	20.5	8.7	79.305 ug/L	79.305 ppb	17:41:00
2	K 766.490 Radial†	4214.8	1176.3	204.95 ug/L	204.95 ppb	17:40:40
2	Mg 279.077 IEC†	0.6	-0.6	-18.646 ug/L	-18.646 ppb	17:41:00
2	Na 589.592 Radial†	-321.2	834.8	272.06 ug/L	272.06 ppb	17:40:40
2	Sr 421.552†	108.2	92.6	0.6061 ug/L	0.6061 ppb	17:40:40
2	Sc 361.383	849606.0	849606.0	102.75 %		17:41:57
2	Y 371.029	677940.5	677940.5	101.58 %		17:41:57
2	Ag 328.068†	224.0	-79.1	-0.3639 ug/L	-0.3639 ppb	17:41:57
2	As 188.979†	-26.1	5.2	2.2989 ug/L	2.2989 ppb	17:42:17
2	B 249.677†	123.2	715.0	17.010 ug/L	17.010 ppb	17:41:57
2	Ba 233.527†	244.1	247.8	1.9793 ug/L	1.9793 ppb	17:42:17
2	Be 313.107†	-3879.9	-75.7	-0.0200 ug/L	-0.0200 ppb	17:41:57
2	Cd 226.502†	-201.2	20.2	0.2310 ug/L	0.2310 ppb	17:42:17
2	Co 228.616†	-75.1	10.3	0.2057 ug/L	0.2057 ppb	17:42:17
2	Cr 267.716†	203.1	131.1	1.5551 ug/L	1.5551 ppb	17:42:17
2	Cu 324.752†	5029.3	173.8	0.5315 ug/L	0.5315 ppb	17:41:57
2	Mn 257.610†	5572.2	4953.2	5.5587 ug/L	5.5587 ppb	17:41:57
2	Mo 202.031†	23.4	11.0	0.8325 ug/L	0.8325 ppb	17:42:17
2	Ni 231.604†	128.5	48.0	1.2313 ug/L	1.2313 ppb	17:42:17



2	P 214.914†	267.8	13.6	7.8771 ug/L	7.8771 ppb	17:42:17
2	Pb 220.353†	-53.5	15.1	1.8717 ug/L	1.8717 ppb	17:42:17
2	S 181.975 Axial†	76.5	26.7	36.627 ug/L	36.627 ppb	17:42:17
2	Sb 206.836†	39.3	3.1	1.1280 ug/L	1.1280 ppb	17:42:17
2	Se 196.026†	-16.0	9.9	6.7054 ug/L	6.7054 ppb	17:42:17
2	Si 251.611†	50541.6	48657.9	1591.6 ug/L	1591.6 ppb	17:41:57
2	Sn 189.927†	21.7	11.6	2.1111 ug/L	2.1111 ppb	17:42:17
2	Ti 334.940†	542.4	2098.8	3.3959 ug/L	3.3959 ppb	17:41:57
2	Tl 190.801†	-42.1	-6.7	-2.0216 ug/L	-2.0216 ppb	17:42:17
2	U 409.014†	-3301.6	398.7	12.507 ug/L	12.507 ppb	17:41:57
2	V 292.402†	-1539.4	91.9	0.7059 ug/L	0.7059 ppb	17:41:57
2	Zn 213.857†	1039.2	282.8	2.6841 ug/L	2.6841 ppb	17:42:17
2	SiO2†	50506.8	48623.0	3392.6 ug/L	3392.6 ppb	17:42:53
3	Sc Radial	5014.0	5014.0	102 %		17:41:05
3	Y RADIAL	5320.7	5320.7	102.6 %		17:41:05
3	Al 396.153Radial†	-29.8	134.0	116.19 ug/L	116.19 ppb	17:41:05
3	Ca 317.933Radial†	73.2	56.9	89.198 ug/L	89.198 ppb	17:41:25
3	Fe 238.204 Radial†	21.0	9.2	83.585 ug/L	83.585 ppb	17:41:25
3	K 766.490 Radial†	4162.6	1124.2	195.86 ug/L	195.86 ppb	17:41:05
3	Mg 279.077 IEC†	3.6	2.3	75.285 ug/L	75.285 ppb	17:41:25
3	Na 589.592 Radial†	-300.4	855.3	278.73 ug/L	278.73 ppb	17:41:05
3	Sr 421.552†	83.6	68.4	0.4479 ug/L	0.4479 ppb	17:41:05
3	Sc 361.383	847884.1	847884.1	102.54 %		17:42:23
3	Y 371.029	676002.2	676002.2	101.29 %		17:42:23
3	Ag 328.068†	276.4	-27.6	-0.1185 ug/L	-0.1185 ppb	17:42:23
3	As 188.979†	-27.8	3.6	1.5916 ug/L	1.5916 ppb	17:42:43
3	B 249.677†	230.5	819.8	19.505 ug/L	19.505 ppb	17:42:23
3	Ba 233.527†	219.0	223.8	1.7876 ug/L	1.7876 ppb	17:42:43
3	Be 313.107†	-3832.4	-37.1	-0.0058 ug/L	-0.0058 ppb	17:42:23
3	Cd 226.502†	-214.6	6.8	0.0749 ug/L	0.0749 ppb	17:42:43
3	Co 228.616†	-70.8	14.3	0.2878 ug/L	0.2878 ppb	17:42:43
3	Cr 267.716†	213.7	141.8	1.6801 ug/L	1.6801 ppb	17:42:43
3	Cu 324.752†	4952.4	108.8	0.3294 ug/L	0.3294 ppb	17:42:23
3	Mn 257.610†	5488.6	4882.8	5.4763 ug/L	5.4763 ppb	17:42:23
3	Mo 202.031†	19.5	7.2	0.5485 ug/L	0.5485 ppb	17:42:43
3	Ni 231.604†	118.0	38.1	0.9752 ug/L	0.9752 ppb	17:42:43
3	P 214.914†	256.0	2.7	1.4662 ug/L	1.4662 ppb	17:42:43
3	Pb 220.353†	-55.9	12.6	1.5699 ug/L	1.5699 ppb	17:42:43
3	S 181.975 Axial†	75.9	26.3	36.018 ug/L	36.018 ppb	17:42:43
3	Sb 206.836†	39.0	2.9	1.0127 ug/L	1.0127 ppb	17:42:43
3	Se 196.026†	-33.5	-7.3	-4.4781 ug/L	-4.4781 ppb	17:42:43
3	Si 251.611†	50462.4	48680.6	1592.4 ug/L	1592.4 ppb	17:42:23
3	Sn 189.927†	12.1	2.3	0.4355 ug/L	0.4355 ppb	17:42:43
3	Ti 334.940†	562.6	2119.6	3.4196 ug/L	3.4196 ppb	17:42:23
3	Tl 190.801†	-36.7	-1.5	-0.4112 ug/L	-0.4112 ppb	17:42:43
3	U 409.014†	-3144.9	545.0	17.099 ug/L	17.099 ppb	17:42:23
3	V 292.402†	-1570.0	59.1	0.4668 ug/L	0.4668 ppb	17:42:23
3	Zn 213.857†	1032.0	277.8	2.6378 ug/L	2.6378 ppb	17:42:43
3	SiO2†	51029.7	49232.8	3435.2 ug/L	3435.2 ppb	17:42:58

Mean Data: 245690002|948038|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	848004.4	102.56 %		0.187			0.18%
Sc Radial	4998.2	102 %		0.5			0.53%
Y 371.029	676423.9	101.35 %		0.203			0.20%
Y RADIAL	5290.1	102.0 %		0.53			0.52%
Ag 328.068†	-72.6	-0.3368 ug/L		0.20612	-0.3368 ppb	0.20612	61.20%
Al 396.153Radial†	136.4	118.23 ug/L		2.655	118.23 ppb	2.655	2.25%
As 188.979†	4.8	2.1331 ug/L		0.48052	2.1331 ppb	0.48052	22.53%
B 249.677†	783.5	18.643 ug/L		1.4146	18.643 ppb	1.4146	7.59%
Ba 233.527†	235.8	1.8837 ug/L		0.09585	1.8837 ppb	0.09585	5.09%
Be 313.107†	-28.9	-0.0028 ug/L		0.01874	-0.0028 ppb	0.01874	658.24%
Ca 317.933Radial†	57.6	90.252 ug/L		1.9558	90.252 ppb	1.9558	2.17%
Cd 226.502†	18.4	0.2103 ug/L		0.12633	0.2103 ppb	0.12633	60.06%
Co 228.616†	8.7	0.1732 ug/L		0.13386	0.1732 ppb	0.13386	77.30%
Cr 267.716†	125.9	1.4920 ug/L		0.22635	1.4920 ppb	0.22635	15.17%
Cu 324.752†	170.7	0.5196 ug/L		0.18464	0.5196 ppb	0.18464	35.53%
Fe 238.204 Radial†	8.3	75.539 ug/L		10.4512	75.539 ppb	10.4512	13.84%
K 766.490 Radial†	1141.9	198.95 ug/L		5.198	198.95 ppb	5.198	2.61%

Mg 279.077 IEC†	1.8	57.663 ug/L	69.2020	57.663 ppb	69.2020	120.01%
Mn 257.610†	4919.9	5.5178 ug/L	0.04120	5.5178 ppb	0.04120	0.75%
Mo 202.031†	10.3	0.7861 ug/L	0.21812	0.7861 ppb	0.21812	27.75%
Na 589.592 Radial†	823.8	268.47 ug/L	12.449	268.47 ppb	12.449	4.64%
Ni 231.604†	39.3	1.0083 ug/L	0.20852	1.0083 ppb	0.20852	20.68%
P 214.914†	9.4	5.4048 ug/L	3.44788	5.4048 ppb	3.44788	63.79%
Pb 220.353†	10.7	1.3297 ug/L	0.69393	1.3297 ppb	0.69393	52.19%
S 181.975 Axial†	27.6	37.812 ug/L	2.5976	37.812 ppb	2.5976	6.87%
Sb 206.836†	4.6	1.6274 ug/L	0.96654	1.6274 ppb	0.96654	59.39%
Se 196.026†	3.4	2.4672 ug/L	6.06336	2.4672 ppb	6.06336	245.76%
Si 251.611†	48648.9	1591.3 ug/L	1.22	1591.3 ppb	1.22	0.08%
Sn 189.927†	5.7	1.0459 ug/L	0.92578	1.0459 ppb	0.92578	88.51%
Sr 421.552†	76.7	0.5020 ug/L	0.09019	0.5020 ppb	0.09019	17.97%
Ti 334.940†	2106.5	3.4003 ug/L	0.01742	3.4003 ppb	0.01742	0.51%
Tl 190.801†	-6.2	-1.8812 ug/L	1.40510	-1.8812 ppb	1.40510	74.69%
U 409.014†	527.5	16.550 ug/L	3.7993	16.550 ppb	3.7993	22.96%
V 292.402†	101.0	0.7829 ug/L	0.36080	0.7829 ppb	0.36080	46.09%
Zn 213.857†	280.4	2.6630 ug/L	0.02340	2.6630 ppb	0.02340	0.88%
SiO2†	48658.2	3395.1 ug/L	38.92	3395.1 ppb	38.92	1.15%

Sequence No.: 36

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/12/2010 17:59:11

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5014.0	5014.0	102 %		18:01:02
1	Y RADIAL	5343.3	5343.3	103.0 %		18:01:02
1	Al 396.153Radial†	5623.5	5684.8	4906.8 ug/L	4906.8 ppb	18:01:02
1	Ca 317.933Radial†	3182.9	3110.3	4875.0 ug/L	4875.0 ppb	18:01:22
1	Fe 238.204 Radial†	574.9	553.0	5053.2 ug/L	5053.2 ppb	18:01:22
1	K 766.490 Radial†	31424.9	27892.4	4856.5 ug/L	4856.5 ppb	18:01:02
1	Mg 279.077 IEC†	152.7	148.7	4891.2 ug/L	4891.2 ppb	18:01:22
1	Na 589.592 Radial†	33372.7	33918.1	11054 ug/L	11054 ppb	18:01:02
1	Sr 421.552†	80007.8	78544.1	514.81 ug/L	514.81 ppb	18:01:02
1	Sc 361.383	853394.9	853394.9	103.21 %		18:02:20
1	Y 371.029	672941.0	672941.0	100.83 %		18:02:20
1	Ag 328.068†	103325.4	99817.1	485.22 ug/L	485.22 ppb	18:02:25
1	As 188.979†	1095.0	1091.6	474.91 ug/L	474.91 ppb	18:02:45
1	B 249.677†	20313.7	20277.4	480.62 ug/L	480.62 ppb	18:02:25
1	Ba 233.527†	62401.0	60472.0	483.25 ug/L	483.25 ppb	18:02:25
1	Be 313.107†	1333841.6	1296088.3	474.45 ug/L	474.45 ppb	18:02:20
1	Cd 226.502†	41768.8	40686.8	474.82 ug/L	474.82 ppb	18:02:25
1	Co 228.616†	24226.3	23556.7	484.34 ug/L	484.34 ppb	18:02:25
1	Cr 267.716†	41505.8	40149.2	477.73 ug/L	477.73 ppb	18:02:25
1	Cu 324.752†	168041.8	158098.4	485.99 ug/L	485.99 ppb	18:02:25
1	Mn 257.610†	446643.5	432292.7	484.68 ug/L	484.68 ppb	18:02:20
1	Mo 202.031†	6513.5	6299.2	474.99 ug/L	474.99 ppb	18:02:45
1	Ni 231.604†	19222.3	18547.9	475.08 ug/L	475.08 ppb	18:02:25
1	P 214.914†	4407.2	4023.2	2273.1 ug/L	2273.1 ppb	18:02:45
1	Pb 220.353†	3895.8	3841.9	472.50 ug/L	472.50 ppb	18:02:45
1	S 181.975 Axial†	763.0	691.5	948.04 ug/L	948.04 ppb	18:02:45
1	Sb 206.836†	1470.0	1389.2	500.12 ug/L	500.12 ppb	18:02:45
1	Se 196.026†	729.5	732.2	496.34 ug/L	496.34 ppb	18:02:45
1	Si 251.611†	76608.3	73696.1	2404.8 ug/L	2404.8 ppb	18:02:25
1	Sn 189.927†	2675.3	2582.7	467.90 ug/L	467.90 ppb	18:02:45
1	Ti 334.940†	308409.5	300395.6	484.83 ug/L	484.83 ppb	18:02:25
1	Tl 190.801†	1568.6	1554.2	485.15 ug/L	485.15 ppb	18:02:45
1	U 409.014†	12948.2	16157.7	505.68 ug/L	505.68 ppb	18:02:25
1	V 292.402†	64609.6	64191.8	485.56 ug/L	485.56 ppb	18:02:25
1	Zn 213.857†	52244.3	49892.1	472.70 ug/L	472.70 ppb	18:02:25
1	SiO2†	77075.2	74147.5	5160.7 ug/L	5160.7 ppb	18:03:52
2	Sc Radial	4925.1	4925.1	100 %		18:01:27
2	Y RADIAL	5183.4	5183.4	99.94 %		18:01:27
2	Al 396.153Radial†	5506.5	5667.6	4891.6 ug/L	4891.6 ppb	18:01:27
2	Ca 317.933Radial†	3175.6	3159.4	4951.9 ug/L	4951.9 ppb	18:01:48
2	Fe 238.204 Radial†	568.4	556.8	5087.2 ug/L	5087.2 ppb	18:01:48
2	K 766.490 Radial†	30757.7	27782.3	4837.3 ug/L	4837.3 ppb	18:01:27
2	Mg 279.077 IEC†	155.0	153.7	5056.7 ug/L	5056.7 ppb	18:01:48
2	Na 589.592 Radial†	32590.9	33728.0	10992 ug/L	10992 ppb	18:01:27
2	Sr 421.552†	78099.6	78054.6	511.60 ug/L	511.60 ppb	18:01:27
2	Sc 361.383	846894.7	846894.7	102.42 %		18:02:51
2	Y 371.029	667309.7	667309.7	99.986 %		18:02:51
2	Ag 328.068†	102405.5	99687.3	484.60 ug/L	484.60 ppb	18:02:56
2	As 188.979†	1087.9	1092.9	475.45 ug/L	475.45 ppb	18:03:16
2	B 249.677†	20161.2	20279.6	480.66 ug/L	480.66 ppb	18:02:56
2	Ba 233.527†	61953.2	60498.8	483.47 ug/L	483.47 ppb	18:02:56
2	Be 313.107†	1326493.8	1298833.7	475.45 ug/L	475.45 ppb	18:02:51
2	Cd 226.502†	41568.5	40801.8	476.16 ug/L	476.16 ppb	18:02:56
2	Co 228.616†	24046.0	23560.9	484.44 ug/L	484.44 ppb	18:02:56
2	Cr 267.716†	41154.7	40115.1	477.32 ug/L	477.32 ppb	18:02:56
2	Cu 324.752†	166753.8	158090.5	485.97 ug/L	485.97 ppb	18:02:56
2	Mn 257.610†	445329.5	434331.3	486.96 ug/L	486.96 ppb	18:02:51
2	Mo 202.031†	6502.1	6336.5	477.81 ug/L	477.81 ppb	18:03:16
2	Ni 231.604†	19174.1	18643.8	477.54 ug/L	477.54 ppb	18:02:56

2	P 214.914†	4410.3	4059.0	2294.1 ug/L	2294.1 ppb	18:03:16
2	Pb 220.353†	3899.2	3874.2	476.47 ug/L	476.47 ppb	18:03:16
2	S 181.975 Axial†	757.8	692.1	948.84 ug/L	948.84 ppb	18:03:16
2	Sb 206.836†	1471.9	1402.0	504.67 ug/L	504.67 ppb	18:03:16
2	Se 196.026†	718.6	727.0	493.10 ug/L	493.10 ppb	18:03:16
2	Si 251.611†	76045.1	73715.9	2405.4 ug/L	2405.4 ppb	18:02:56
2	Sn 189.927†	2671.1	2598.4	470.76 ug/L	470.76 ppb	18:03:16
2	Ti 334.940†	306336.2	300664.8	485.26 ug/L	485.26 ppb	18:02:56
2	Tl 190.801†	1542.2	1540.1	480.80 ug/L	480.80 ppb	18:03:16
2	U 409.014†	12951.5	16257.2	508.80 ug/L	508.80 ppb	18:02:56
2	V 292.402†	64306.6	64376.5	486.98 ug/L	486.98 ppb	18:02:56
2	Zn 213.857†	51907.6	49951.9	473.25 ug/L	473.25 ppb	18:02:56
2	SiO2†	76643.1	74298.8	5171.1 ug/L	5171.1 ppb	18:03:58
3	Sc Radial	5017.5	5017.5	102 %		18:01:53
3	Y RADIAL	5329.3	5329.3	102.8 %		18:01:53
3	Al 396.153Radial†	5627.3	5684.6	4906.5 ug/L	4906.5 ppb	18:01:53
3	Ca 317.933Radial†	3220.8	3145.2	4929.7 ug/L	4929.7 ppb	18:02:13
3	Fe 238.204 Radial†	573.5	551.3	5037.5 ug/L	5037.5 ppb	18:02:13
3	K 766.490 Radial†	31364.1	27810.8	4842.2 ug/L	4842.2 ppb	18:01:53
3	Mg 279.077 IEC†	158.0	153.8	5059.4 ug/L	5059.4 ppb	18:02:13
3	Na 589.592 Radial†	33021.2	33549.9	10934 ug/L	10934 ppb	18:01:53
3	Sr 421.552†	79798.6	78283.0	513.10 ug/L	513.10 ppb	18:01:53
3	Sc 361.383	850381.9	850381.9	102.84 %		18:03:22
3	Y 371.029	669486.9	669486.9	100.31 %		18:03:22
3	Ag 328.068†	104888.5	101691.7	494.30 ug/L	494.30 ppb	18:03:27
3	As 188.979†	1093.6	1094.0	476.00 ug/L	476.00 ppb	18:03:47
3	B 249.677†	20836.1	20855.1	494.35 ug/L	494.35 ppb	18:03:27
3	Ba 233.527†	63265.3	61526.6	491.68 ug/L	491.68 ppb	18:03:27
3	Be 313.107†	1328913.2	1295875.3	474.39 ug/L	474.39 ppb	18:03:22
3	Cd 226.502†	42457.2	41499.5	484.31 ug/L	484.31 ppb	18:03:27
3	Co 228.616†	24570.8	23974.9	492.93 ug/L	492.93 ppb	18:03:27
3	Cr 267.716†	41974.4	40747.4	484.84 ug/L	484.84 ppb	18:03:27
3	Cu 324.752†	171052.1	161602.3	496.76 ug/L	496.76 ppb	18:03:27
3	Mn 257.610†	445968.6	433169.8	485.65 ug/L	485.65 ppb	18:03:22
3	Mo 202.031†	6502.5	6310.9	475.87 ug/L	475.87 ppb	18:03:47
3	Ni 231.604†	19578.4	18960.1	485.64 ug/L	485.64 ppb	18:03:27
3	P 214.914†	4368.6	4000.7	2257.8 ug/L	2257.8 ppb	18:03:47
3	Pb 220.353†	3887.1	3846.8	473.10 ug/L	473.10 ppb	18:03:47
3	S 181.975 Axial†	751.3	682.8	935.99 ug/L	935.99 ppb	18:03:47
3	Sb 206.836†	1472.5	1396.7	502.74 ug/L	502.74 ppb	18:03:47
3	Se 196.026†	724.3	729.6	494.62 ug/L	494.62 ppb	18:03:47
3	Si 251.611†	77991.0	75303.6	2457.4 ug/L	2457.4 ppb	18:03:27
3	Sn 189.927†	2667.4	2584.2	468.17 ug/L	468.17 ppb	18:03:47
3	Ti 334.940†	313502.1	306406.2	494.52 ug/L	494.52 ppb	18:03:27
3	Tl 190.801†	1540.4	1532.1	478.35 ug/L	478.35 ppb	18:03:47
3	U 409.014†	13186.9	16434.3	514.35 ug/L	514.35 ppb	18:03:27
3	V 292.402†	65772.7	65544.6	495.68 ug/L	495.68 ppb	18:03:27
3	Zn 213.857†	53021.3	50826.9	481.56 ug/L	481.56 ppb	18:03:27
3	SiO2†	77118.3	74454.0	5182.0 ug/L	5182.0 ppb	18:04:03

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	850223.8	102.82 %	0.393			0.38%
Sc Radial	4985.5	101 %	1.1			1.05%
Y 371.029	669912.5	100.38 %	0.425			0.42%
Y RADIAL	5285.3	101.9 %	1.71			1.67%
Ag 328.068†	100398.7	488.04 ug/L	5.429	488.04 ppb	5.429	1.11%
QC value within limits for Ag 328.068 Recovery = 97.61%						
Al 396.153Radial†	5679.0	4901.6 ug/L	8.66	4901.6 ppb	8.66	0.18%
QC value within limits for Al 396.153Radial Recovery = 98.03%						
As 188.979†	1092.8	475.45 ug/L	0.548	475.45 ppb	0.548	0.12%
QC value within limits for As 188.979 Recovery = 95.09%						
B 249.677†	20470.7	485.21 ug/L	7.916	485.21 ppb	7.916	1.63%
QC value within limits for B 249.677 Recovery = 97.04%						
Ba 233.527†	60832.5	486.13 ug/L	4.804	486.13 ppb	4.804	0.99%
QC value within limits for Ba 233.527 Recovery = 97.23%						
Be 313.107†	1296932.4	474.77 ug/L	0.596	474.77 ppb	0.596	0.13%
QC value within limits for Be 313.107 Recovery = 94.95%						
Ca 317.933Radial†	3138.3	4918.8 ug/L	39.59	4918.8 ppb	39.59	0.80%

All analyte(s) passed QC.

Sequence No.: 37  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 2/12/2010 18:06:12  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5057.6	5057.6	103 %		18:08:04
1	Y RADIAL	5381.7	5381.7	103.8 %		18:08:04
1	Al 396.153Radial†	-150.0	17.3	14.945 ug/L	14.945 ppb	18:08:04
1	Ca 317.933Radial†	24.0	8.4	13.154 ug/L	13.154 ppb	18:08:24
1	Fe 238.204 Radial†	9.2	-2.5	-22.571 ug/L	-22.571 ppb	18:08:24
1	K 766.490 Radial†	2868.9	-170.3	-29.775 ug/L	-29.775 ppb	18:08:04
1	Mg 279.077 IEC†	2.1	0.8	26.846 ug/L	26.846 ppb	18:08:24
1	Na 589.592 Radial†	-607.5	558.9	182.15 ug/L	182.15 ppb	18:08:04
1	Sr 421.552†	-15.1	-28.4	-0.1862 ug/L	-0.1862 ppb	18:08:04
1	Sc 361.383	833741.1	833741.1	100.83 %		18:09:21
1	Y 371.029	666226.2	666226.2	99.823 %		18:09:21
1	Ag 328.068†	164.4	-134.1	-0.6682 ug/L	-0.6682 ppb	18:09:21
1	As 188.979†	-29.9	1.0	0.4044 ug/L	0.4044 ppb	18:09:41
1	B 249.677†	-437.6	161.0	3.8366 ug/L	3.8366 ppb	18:09:41
1	Ba 233.527†	-26.8	-16.3	-0.1298 ug/L	-0.1298 ppb	18:09:41
1	Be 313.107†	-3965.0	-232.0	-0.0844 ug/L	-0.0844 ppb	18:09:21
1	Cd 226.502†	-201.2	16.5	0.1981 ug/L	0.1981 ppb	18:09:41
1	Co 228.616†	-81.9	2.1	0.0456 ug/L	0.0456 ppb	18:09:41
1	Cr 267.716†	63.4	-3.8	-0.0516 ug/L	-0.0516 ppb	18:09:41
1	Cu 324.752†	4688.0	-71.6	-0.2308 ug/L	-0.2308 ppb	18:09:21
1	Mn 257.610†	539.3	65.0	0.0695 ug/L	0.0695 ppb	18:09:41
1	Mo 202.031†	21.5	9.4	0.7101 ug/L	0.7101 ppb	18:09:41
1	Ni 231.604†	74.3	-3.3	-0.0849 ug/L	-0.0849 ppb	18:09:41
1	P 214.914†	233.5	-15.4	-9.0040 ug/L	-9.0040 ppb	18:09:41
1	Pb 220.353†	-52.5	15.1	1.8558 ug/L	1.8558 ppb	18:09:41
1	S 181.975 Axial†	56.2	8.0	10.951 ug/L	10.951 ppb	18:09:41
1	Sb 206.836†	50.4	14.9	5.2253 ug/L	5.2253 ppb	18:09:41
1	Se 196.026†	-18.6	7.0	4.4972 ug/L	4.4972 ppb	18:09:41
1	Si 251.611†	513.1	-22.5	-0.7445 ug/L	-0.7445 ppb	18:09:41
1	Sn 189.927†	19.8	10.2	1.8440 ug/L	1.8440 ppb	18:09:41
1	Ti 334.940†	-1500.4	82.8	0.1257 ug/L	0.1257 ppb	18:09:21
1	Tl 190.801†	-35.4	-0.8	-0.2494 ug/L	-0.2494 ppb	18:09:41
1	U 409.014†	-3085.7	551.6	17.323 ug/L	17.323 ppb	18:09:21
1	V 292.402†	-1555.5	47.5	0.4016 ug/L	0.4016 ppb	18:09:21
1	Zn 213.857†	711.6	-22.9	-0.2143 ug/L	-0.2143 ppb	18:09:41
1	SiO2†	580.7	43.6	3.0220 ug/L	3.0220 ppb	18:10:37
2	Sc Radial	5011.1	5011.1	102 %		18:08:29
2	Y RADIAL	5335.8	5335.8	102.9 %		18:08:29
2	Al 396.153Radial†	-159.4	6.7	5.7516 ug/L	5.7516 ppb	18:08:29
2	Ca 317.933Radial†	16.9	1.7	2.5968 ug/L	2.5968 ppb	18:08:49
2	Fe 238.204 Radial†	11.3	-0.3	-2.5859 ug/L	-2.5859 ppb	18:08:49
2	K 766.490 Radial†	2938.6	-76.0	-13.316 ug/L	-13.316 ppb	18:08:29
2	Mg 279.077 IEC†	2.0	0.8	25.804 ug/L	25.804 ppb	18:08:49
2	Na 589.592 Radial†	-620.6	540.5	176.16 ug/L	176.16 ppb	18:08:29
2	Sr 421.552†	25.5	11.4	0.0748 ug/L	0.0748 ppb	18:08:29
2	Sc 361.383	832068.3	832068.3	100.63 %		18:09:46
2	Y 371.029	663907.0	663907.0	99.476 %		18:09:46
2	Ag 328.068†	196.2	-102.1	-0.5021 ug/L	-0.5021 ppb	18:09:46
2	As 188.979†	-27.9	2.9	1.2439 ug/L	1.2439 ppb	18:10:06
2	B 249.677†	-480.2	117.8	2.8044 ug/L	2.8044 ppb	18:10:06
2	Ba 233.527†	-24.7	-14.2	-0.1110 ug/L	-0.1110 ppb	18:10:06
2	Be 313.107†	-3960.7	-235.7	-0.0855 ug/L	-0.0855 ppb	18:09:46
2	Cd 226.502†	-202.1	15.3	0.1818 ug/L	0.1818 ppb	18:10:06
2	Co 228.616†	-72.9	10.9	0.2254 ug/L	0.2254 ppb	18:10:06
2	Cr 267.716†	70.3	3.2	0.0334 ug/L	0.0334 ppb	18:10:06
2	Cu 324.752†	4756.4	5.8	0.0090 ug/L	0.0090 ppb	18:09:46
2	Mn 257.610†	504.6	31.5	0.0340 ug/L	0.0340 ppb	18:10:06
2	Mo 202.031†	23.1	11.1	0.8390 ug/L	0.8390 ppb	18:10:06
2	Ni 231.604†	87.0	9.4	0.2420 ug/L	0.2420 ppb	18:10:06

2	P 214.914†	247.9	-0.7	-0.3827 ug/L	-0.3827 ppb	18:10:06
2	Pb 220.353†	-71.0	-3.4	-0.4089 ug/L	-0.4089 ppb	18:10:06
2	S 181.975 Axial†	44.3	-3.7	-5.1022 ug/L	-5.1022 ppb	18:10:06
2	Sb 206.836†	48.3	12.9	4.5385 ug/L	4.5385 ppb	18:10:06
2	Se 196.026†	-10.3	15.1	9.8873 ug/L	9.8873 ppb	18:10:06
2	Si 251.611†	559.5	24.6	0.7953 ug/L	0.7953 ppb	18:10:06
2	Sn 189.927†	25.6	16.0	2.8904 ug/L	2.8904 ppb	18:10:06
2	Ti 334.940†	-1431.9	147.9	0.2302 ug/L	0.2302 ppb	18:09:46
2	Tl 190.801†	-30.7	3.8	1.1752 ug/L	1.1752 ppb	18:10:06
2	U 409.014†	-3136.9	494.6	15.530 ug/L	15.530 ppb	18:09:46
2	V 292.402†	-1441.9	157.3	1.2164 ug/L	1.2164 ppb	18:09:46
2	Zn 213.857†	704.0	-29.0	-0.2785 ug/L	-0.2785 ppb	18:10:06
2	SiO2†	565.2	29.3	2.0195 ug/L	2.0195 ppb	18:10:42
3	Sc Radial	5034.4	5034.4	102 %		18:08:54
3	Y RADIAL	5368.1	5368.1	103.5 %		18:08:54
3	Al 396.153Radial†	-162.6	4.2	3.6677 ug/L	3.6677 ppb	18:08:54
3	Ca 317.933Radial†	16.8	1.4	2.2514 ug/L	2.2514 ppb	18:09:14
3	Fe 238.204 Radial†	8.7	-3.0	-27.002 ug/L	-27.002 ppb	18:09:14
3	K 766.490 Radial†	2804.1	-220.9	-38.578 ug/L	-38.578 ppb	18:08:54
3	Mg 279.077 IEC†	0.0	-1.2	-38.293 ug/L	-38.293 ppb	18:09:14
3	Na 589.592 Radial†	-647.5	517.0	168.49 ug/L	168.49 ppb	18:08:54
3	Sr 421.552†	27.8	13.6	0.0888 ug/L	0.0888 ppb	18:08:54
3	Sc 361.383	832422.2	832422.2	100.67 %		18:10:12
3	Y 371.029	664403.7	664403.7	99.550 %		18:10:12
3	Ag 328.068†	163.0	-135.2	-0.6731 ug/L	-0.6731 ppb	18:10:12
3	As 188.979†	-23.0	7.8	3.3592 ug/L	3.3592 ppb	18:10:32
3	B 249.677†	-478.7	119.5	2.8484 ug/L	2.8484 ppb	18:10:32
3	Ba 233.527†	-42.7	-32.2	-0.2549 ug/L	-0.2549 ppb	18:10:32
3	Be 313.107†	-3919.5	-193.0	-0.0697 ug/L	-0.0697 ppb	18:10:12
3	Cd 226.502†	-183.6	33.7	0.3997 ug/L	0.3997 ppb	18:10:32
3	Co 228.616†	-74.7	9.2	0.1884 ug/L	0.1884 ppb	18:10:32
3	Cr 267.716†	58.7	-8.3	-0.1054 ug/L	-0.1054 ppb	18:10:32
3	Cu 324.752†	4729.1	-23.3	-0.0836 ug/L	-0.0836 ppb	18:10:12
3	Mn 257.610†	504.6	31.4	0.0341 ug/L	0.0341 ppb	18:10:32
3	Mo 202.031†	15.4	3.4	0.2559 ug/L	0.2559 ppb	18:10:32
3	Ni 231.604†	88.2	10.6	0.2705 ug/L	0.2705 ppb	18:10:32
3	P 214.914†	231.8	-16.8	-9.8244 ug/L	-9.8244 ppb	18:10:32
3	Pb 220.353†	-67.4	0.2	0.0314 ug/L	0.0314 ppb	18:10:32
3	S 181.975 Axial†	53.0	4.8	6.6259 ug/L	6.6259 ppb	18:10:32
3	Sb 206.836†	36.6	1.3	0.4626 ug/L	0.4626 ppb	18:10:32
3	Se 196.026†	-28.9	-3.3	-2.2421 ug/L	-2.2421 ppb	18:10:32
3	Si 251.611†	523.9	-11.0	-0.3614 ug/L	-0.3614 ppb	18:10:32
3	Sn 189.927†	14.7	5.2	0.9332 ug/L	0.9332 ppb	18:10:32
3	Ti 334.940†	-1351.5	228.4	0.3639 ug/L	0.3639 ppb	18:10:12
3	Tl 190.801†	-29.4	5.2	1.6022 ug/L	1.6022 ppb	18:10:32
3	U 409.014†	-3029.7	602.4	18.918 ug/L	18.918 ppb	18:10:12
3	V 292.402†	-1456.4	143.5	1.1140 ug/L	1.1140 ppb	18:10:12
3	Zn 213.857†	717.9	-15.5	-0.1455 ug/L	-0.1455 ppb	18:10:32
3	SiO2†	525.4	-10.5	-0.7364 ug/L	-0.7364 ppb	18:10:47

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	832743.9	100.71 %		0.107			0.11%
Sc Radial	5034.3	102 %		0.5			0.46%
Y 371.029	664845.6	99.616 %		0.1830			0.18%
Y RADIAL	5361.9	103.4 %		0.45			0.44%
Ag 328.068†	-123.8	-0.6145 ug/L		0.09734	-0.6145 ppb	0.09734	15.84%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	9.4	8.1214 ug/L		6.00051	8.1214 ppb	6.00051	73.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	3.9	1.6692 ug/L		1.52261	1.6692 ppb	1.52261	91.22%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	132.7	3.1631 ug/L		0.58367	3.1631 ppb	0.58367	18.45%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-20.9	-0.1652 ug/L		0.07818	-0.1652 ppb	0.07818	47.32%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-220.2	-0.0799 ug/L		0.00886	-0.0799 ppb	0.00886	11.09%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	3.8	6.0008 ug/L		6.19741	6.0008 ppb	6.19741	103.28%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd	226.502†	21.8	0.2599 ug/L	0.12141	0.2599 ppb	0.12141	46.72%		
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co	228.616†	7.4	0.1531 ug/L	0.09498	0.1531 ppb	0.09498	62.02%		
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr	267.716†	-3.0	-0.0412 ug/L	0.06996	-0.0412 ppb	0.06996	169.82%		
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu	324.752†	-29.7	-0.1018 ug/L	0.12091	-0.1018 ppb	0.12091	118.79%		
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe	238.204 Radial†	-1.9	-17.386 ug/L	13.0077	-17.386 ppb	13.0077	74.82%		
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K	766.490 Radial†	-155.7	-27.223 ug/L	12.8231	-27.223 ppb	12.8231	47.10%		
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg	279.077 IEC†	0.1	4.7858 ug/L	37.31078	4.7858 ppb	37.31078	779.62%		
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn	257.610†	42.6	0.0459 ug/L	0.02048	0.0459 ppb	0.02048	44.66%		
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo	202.031†	8.0	0.6017 ug/L	0.30631	0.6017 ppb	0.30631	50.91%		
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na	589.592 Radial†	538.8	175.60 ug/L	6.844	175.60 ppb	6.844	3.90%		
QC value within limits for Na 589.592 Radial Recovery = Not calculated									
Ni	231.604†	5.6	0.1425 ug/L	0.19746	0.1425 ppb	0.19746	138.53%		
QC value within limits for Ni 231.604 Recovery = Not calculated									
P	214.914†	-11.0	-6.4037 ug/L	5.23049	-6.4037 ppb	5.23049	81.68%		
QC value within limits for P 214.914 Recovery = Not calculated									
Pb	220.353†	4.0	0.4927 ug/L	1.20075	0.4927 ppb	1.20075	243.68%		
QC value within limits for Pb 220.353 Recovery = Not calculated									
S	181.975 Axial†	3.0	4.1583 ug/L	8.30620	4.1583 ppb	8.30620	199.75%		
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb	206.836†	9.7	3.4088 ug/L	2.57450	3.4088 ppb	2.57450	75.52%		
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se	196.026†	6.3	4.0475 ug/L	6.07720	4.0475 ppb	6.07720	150.15%		
QC value within limits for Se 196.026 Recovery = Not calculated									
Si	251.611†	-2.9	-0.1035 ug/L	0.80166	-0.1035 ppb	0.80166	774.45%		
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn	189.927†	10.4	1.8892 ug/L	0.97940	1.8892 ppb	0.97940	51.84%		
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr	421.552†	-1.1	-0.0076 ug/L	0.15491	-0.0076 ppb	0.15491	>999.9%		
QC value within limits for Sr 421.552 Recovery = Not calculated									
Ti	334.940†	153.1	0.2400 ug/L	0.11941	0.2400 ppb	0.11941	49.76%		
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl	190.801†	2.7	0.8427 ug/L	0.96955	0.8427 ppb	0.96955	115.06%		
QC value within limits for Tl 190.801 Recovery = Not calculated									
U	409.014†	549.5	17.257 ug/L	1.6952	17.257 ppb	1.6952	9.82%		
QC value within limits for U 409.014 Recovery = Not calculated									
V	292.402†	116.1	0.9107 ug/L	0.44382	0.9107 ppb	0.44382	48.73%		
QC value within limits for V 292.402 Recovery = Not calculated									
Zn	213.857†	-22.4	-0.2128 ug/L	0.06652	-0.2128 ppb	0.06652	31.26%		
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†		20.8	1.4350 ug/L	1.94619	1.4350 ppb	1.94619	135.62%		
QC value within limits for SiO2 Recovery = Not calculated									
All analyte(s) passed QC.									



## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Wednesday, February 17, 2010 11:57:47

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.523

Tuning File: c:\elandata\Tuning\default2.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

Number of Replicates: 5

### Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Be	9.0	4467.9	4467.899	43.254	1.0
Mg	24.0	38366.7	38366.654	346.056	0.9
Co	58.9	105938.4	105938.381	1022.634	1.0
Rh	102.9	236422.2	236422.185	3310.770	1.4
In	114.9	326706.3	326706.271	2026.655	0.6
Pb	208.0	264004.7	264004.749	2944.788	1.1
[> Ba	137.9	294978.2	294978.201	2981.545	1.0
[ Ba++	69.0	5767.7	0.020	0.000	2.3
[> Ce	139.9	353763.5	353763.523	1849.417	0.5
[ CeO	155.9	7716.9	0.022	0.001	2.7
Bkgd	220.0	26.3	26.300	0.908	3.5

### Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

### Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.3	4596.1
Co	59	11	5.5	105509.9
In	115	11	6.0	310864.5

## ICPMS #5 Instrument Tuning Report

File Name: default2.tun  
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	591	2072	0.624
Be	9.0	9.0	2048	2088	0.616
Mg	24.0	24.0	5681	2100	0.589
Mg	25.0	25.0	5945	2100	0.636
Mg	26.0	26.0	6166	2100	0.617
Co	58.9	58.9	14186	2125	0.606
Rh	102.9	102.9	24877	2180	0.593
In	114.9	114.9	27791	2200	0.599
Ce	139.9	139.9	33863	2220	0.596
Pb	206.0	206.0	49948	2305	0.606
Pb	207.0	206.9	50147	2240	0.648
Pb	208.0	207.9	50439	2265	0.715
U	238.1	238.0	57719	2275	0.751

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, February 18, 2010 05:07:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\Blank.265

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		84	
Be	9		ug/L		20	
B	11		ug/L		255	
Na	23		ug/L		5335	
Mg	24		ug/L		1000	
Al	27		ug/L		7002	
P	31		ug/L		2726	
K	39		ug/L		418046	
Ca	43		ug/L		277	
> Sc	45		ug/L		1023757	
Ti	47		ug/L		296	
V	51		ug/L		1185	
Cr	52		ug/L		-1897	
Cr	53		ug/L		75937	
Mn	55		ug/L		1167	
Fe	57		ug/L		4774	
Co	59		ug/L		111	
Ni	60		ug/L		119	
Cu	63		ug/L		218	
Cu	65		ug/L		144	
Zn	66		ug/L		330	
Zn	67		ug/L		8102	
Zn	68		ug/L		949	
> Ge	74		ug/L		428342	
As	75		ug/L		-204	
Se	77		ug/L		4227	
Se	82		ug/L		3	
Kr	83		ug/L		140	
Sr	88		ug/L		229	
Y	89		ug/L		78	
Mo	98		ug/L		123	
Ag	107		ug/L		76	
Cd	111		ug/L		24	
Cd	114		ug/L		85	
> In	115		ug/L		298850	
Sn	120		ug/L		226	
Sb	121		ug/L		408	
Sb	123		ug/L		329	
Ba	135		ug/L		56	
Ba	137		ug/L		74	
Ho	165		ug/L		30	
> Lu	175		ug/L		538520	
Tl	205		ug/L		1696	
Pb	208		ug/L		815	
Bi	209		ug/L		175	
Th	232		ug/L		795	
U	238		ug/L		874	

Sample ID: Blank

Report Date/Time: Thursday, February 18, 2010 05:10:00

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

## QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Li	7						
	Be	9						
	B	11						
	Na	23						
	Mg	24						
	Al	27						
	P	31						
	K	39						
	Ca	43						
>	Sc	45						
	Ti	47						
	V	51						
	Cr	52						
	Cr	53						
	Mn	55						
	Fe	57						
	Co	59						
	Ni	60						
	Cu	63						
L	Cu	65						
	Zn	66						
	Zn	67						
	Zn	68						
>	Ge	74						
	As	75						
	Se	77						
	Se	82						
L	Kr	83						
	Sr	88						
	Y	89						
	Mo	98						
	Ag	107						
	Cd	111						
	Cd	114						
>	In	115						
	Sn	120						
	Sb	121						
L	Sb	123						
	Ba	135						
	Ba	137						
	Ho	165						
>	Lu	175						
	Tl	205						
	Pb	208						
	Bi	209						
	Th	232						
L	U	238						

## QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, February 18, 2010 05:13:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\Standard 1.266

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	2.545	13000	0.012
Be	9	10.000	ug/L	3.822	3225	0.003
B	11	20.000	ug/L	1.415	4964	0.005
Na	23	1000.000	ug/L	5.475	1735201	1.670
Mg	24	1000.000	ug/L	1.093	1327273	1.281
Al	27	1000.000	ug/L	3.191	1937062	1.864
P	31	1000.000	ug/L	2.453	132933	0.126
K	39	1000.000	ug/L	4.853	3714444	3.178
Ca	43	1000.000	ug/L	1.623	8623	0.008
> Sc	45		ug/L		1035597	1035596.679
Ti	47	10.000	ug/L	2.807	4644	0.004
V	51	10.000	ug/L	10.163	55178	0.052
Cr	52	10.000	ug/L	4.650	41939	0.042
Cr	53		ug/L		90719	0.013
Mn	55	10.000	ug/L	1.997	77541	0.074
Fe	57	1000.000	ug/L	2.505	162212	0.152
Co	59	10.000	ug/L	2.847	60067	0.058
Ni	60	10.000	ug/L	0.897	13172	0.013
Cu	63		ug/L		32422	0.031
Cu	65	10.000	ug/L	1.485	16447	0.016
Zn	66	10.000	ug/L	2.360	11710	0.026
Zn	67		ug/L		10571	0.005
Zn	68		ug/L		9361	0.019
> Ge	74		ug/L		437359	437358.939
As	75	10.000	ug/L	9.246	11676	0.027
Se	77		ug/L		6103	0.004
Se	82	10.000	ug/L	2.099	1278	0.003
Kr	83		ug/L		137	-0.000
Sr	88	10.000	ug/L	2.064	155438	0.507
Y	89		ug/L		102	0.000
Mo	98	10.000	ug/L	0.493	37424	0.122
Ag	107	10.000	ug/L	1.680	67055	0.219
Cd	111	10.000	ug/L	0.422	17069	0.056
Cd	114		ug/L		40395	0.132
> In	115		ug/L		306111	306110.536
Sn	120	10.000	ug/L	0.841	69448	0.226
Sb	121	10.000	ug/L	1.195	59950	0.194
Sb	123		ug/L		46215	0.150
Ba	135		ug/L		17264	0.032
Ba	137	10.000	ug/L	0.976	30722	0.057
Ho	165		ug/L		28	-0.000
> Lu	175		ug/L		541467	541466.879
Tl	205	10.000	ug/L	1.542	228160	0.418
Pb	208	10.000	ug/L	1.079	396146	0.730
Bi	209		ug/L		200	0.000
Th	232	10.000	ug/L	2.273	505293	0.932
U	238	10.000	ug/L	0.803	518072	0.955

Sample ID: Standard 1

Report Date/Time: Thursday, February 18, 2010 05:16:04

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: Standard 1

Report Date/Time: Thursday, February 18, 2010 05:16:04

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### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Thursday, February 18, 2010 05:16:04

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## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, February 18, 2010 05:19:27

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\Standard 2.267

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	99.941	ug/L	1.796	132919	0.118
Be	9	99.887	ug/L	2.631	31375	0.028
B	11	199.938	ug/L	4.051	50009	0.044
Na	23	9989.202	ug/L	4.797	16996054	15.060
Mg	24	9997.038	ug/L	10.281	14024555	12.434
Al	27	9990.008	ug/L	7.367	19128640	16.928
P	31	9989.911	ug/L	4.223	1290105	1.141
K	39	10000.760	ug/L	11.019	36544304	32.026
Ca	43	9999.043	ug/L	3.025	90358	0.080
> Sc	45		ug/L		1129104	1129103.946
Ti	47	99.954	ug/L	2.514	45560	0.040
V	51	99.961	ug/L	1.910	567725	0.502
Cr	52	99.938	ug/L	2.033	447964	0.399
Cr	53		ug/L		143954	0.053
Mn	55	99.936	ug/L	1.808	783534	0.693
Fe	57	9987.042	ug/L	3.356	1521962	1.344
Co	59	99.935	ug/L	1.647	613552	0.543
Ni	60	99.959	ug/L	3.265	136646	0.121
Cu	63		ug/L		340512	0.301
Cu	65	99.957	ug/L	1.882	170475	0.151
Zn	66	99.951	ug/L	2.438	118833	0.248
Zn	67		ug/L		28688	0.041
Zn	68		ug/L		88449	0.183
> Ge	74		ug/L		478193	478192.858
As	75	99.991	ug/L	2.718	128427	0.269
Se	77		ug/L		15733	0.023
Se	82	99.967	ug/L	4.885	13477	0.028
Kr	83		ug/L		186	0.000
Sr	88	99.924	ug/L	1.479	1509049	4.707
Y	89		ug/L		216	0.000
Mo	98	100.006	ug/L	1.967	393128	1.226
Ag	107	99.952	ug/L	0.440	669056	2.087
Cd	111	99.975	ug/L	2.493	174137	0.543
Cd	114		ug/L		406748	1.269
> In	115		ug/L		320567	320567.498
Sn	120	99.960	ug/L	2.799	697115	2.174
Sb	121	99.988	ug/L	1.973	616323	1.922
Sb	123		ug/L		485156	1.513
Ba	135		ug/L		178468	0.327
Ba	137	100.003	ug/L	1.966	309732	0.568
Ho	165		ug/L		33	0.000
> Lu	175		ug/L		545237	545236.581
Tl	205	99.816	ug/L	1.273	1924467	3.527
Pb	208	99.862	ug/L	2.674	3492290	6.405
Bi	209		ug/L		466	0.001
Th	232	99.798	ug/L	1.827	4217197	7.735
U	238	99.795	ug/L	2.933	4313730	7.913

Sample ID: Standard 2

Report Date/Time: Thursday, February 18, 2010 05:22:09

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, February 18, 2010 05:25:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 1.268

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	52.875	ug/L	3.641	70568	0.062
Be	9	53.985	ug/L	2.365	17024	0.015
B	11	111.976	ug/L	2.913	28215	0.025
Na	23	6227.390	ug/L	6.928	10650218	9.388
Mg	24	4913.347	ug/L	6.776	6920796	6.111
Al	27	5349.826	ug/L	3.489	10273404	9.065
P	31	5423.112	ug/L	1.918	704302	0.619
K	39	4609.824	ug/L	2.812	17182582	14.762
Ca	43	5053.335	ug/L	1.667	45967	0.040
> Sc	45		ug/L		1132603	1132603.159
Ti	47	52.104	ug/L	2.461	23986	0.021
V	51	52.950	ug/L	0.693	302415	0.266
Cr	52	54.569	ug/L	0.855	244495	0.218
Cr	53		ug/L		119896	0.032
Mn	55	54.388	ug/L	3.328	428183	0.377
Fe	57	5510.076	ug/L	1.921	844823	0.741
Co	59	53.157	ug/L	1.021	327443	0.289
Ni	60	54.522	ug/L	4.324	74834	0.066
Cu	63		ug/L		181770	0.160
Cu	65	53.939	ug/L	2.975	92347	0.081
Zn	66	54.285	ug/L	1.434	65434	0.135
Zn	67		ug/L		20192	0.023
Zn	68		ug/L		49715	0.101
> Ge	74		ug/L		483380	483380.469
As	75	52.391	ug/L	1.344	67942	0.141
Se	77		ug/L		11199	0.013
Se	82	54.110	ug/L	0.969	7382	0.015
Kr	83		ug/L		142	-0.000
Sr	88	55.527	ug/L	1.658	862886	2.616
Y	89		ug/L		115	0.000
Mo	98	51.719	ug/L	2.563	209266	0.634
Ag	107	53.788	ug/L	2.193	370445	1.123
Cd	111	52.443	ug/L	1.500	94024	0.285
Cd	114		ug/L		218376	0.662
> In	115		ug/L		329831	329830.905
Sn	120	52.272	ug/L	0.347	375259	1.137
Sb	121	52.378	ug/L	2.285	332420	1.007
Sb	123		ug/L		261132	0.791
Ba	135		ug/L		94055	0.175
Ba	137	54.148	ug/L	2.196	165566	0.308
Ho	165		ug/L		66	0.000
> Lu	175		ug/L		538024	538024.384
Tl	205	54.722	ug/L	3.152	1041788	1.934
Pb	208	55.895	ug/L	0.678	1929696	3.585
Bi	209		ug/L		513	0.001
Th	232	53.166	ug/L	0.186	2217751	4.121
U	238	53.917	ug/L	1.128	2300788	4.275

Sample ID: QC Std 1

Report Date/Time: Thursday, February 18, 2010 05:28:14

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	105.749				
Be	9	107.970				
B	11	111.976				
Na	23	124.548				
Mg	24	98.267				
Al	27	105.937				
P	31	108.462				
K	39	92.196				
Ca	43	101.067				
> Sc	45		110.6			
Ti	47	104.207				
V	51	105.900				
Cr	52	109.138				
Cr	53					
Mn	55	108.776				
Fe	57	110.202				
Co	59	106.314				
Ni	60	109.045				
Cu	63					
Cu	65	107.879				
Zn	66	108.570				
Zn	67					
Zn	68					
> Ge	74		112.8			
As	75	104.782				
Se	77					
Se	82	108.220				
Kr	83					
Sr	88	111.055				
Y	89					
Mo	98	103.438				
Ag	107	107.577				
Cd	111	104.885				
Cd	114					
> In	115		110.4			
Sn	120	104.544				
Sb	121	104.757				
Sb	123					
Ba	135					
Ba	137	108.296				
Ho	165					
> Lu	175		99.9			
Tl	205	109.444				
Pb	208	111.789				
Bi	209					
Th	232	106.332				
U	238	107.833				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	B	11	11ICV is out of limits (+/- 10%)
QC Std 1	Na	23	23ICV is out of limits (+/- 10%)
QC Std 1	Fe	57	57ICV is out of limits (+/- 10%)
QC Std 1	Sr	88	88ICV is out of limits (+/- 10%)
QC Std 1	Pb	208	208ICV is out of limits (+/- 10%)

Sample ID: QC Std 1

Report Date/Time: Thursday, February 18, 2010 05:28:14

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## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, February 18, 2010 05:31:39

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 2.269

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.038	ug/L	10.279	143	0.000
Be	9	0.028	ug/L	39.489	31	0.000
B	11	5.251	ug/L	15.133	1587	0.001
Na	23	0.273	ug/L	322.970	6335	0.000
Mg	24	2.558	ug/L	58.796	4668	0.003
Al	27	-0.507	ug/L	338.092	6668	-0.001
P	31	1.250	ug/L	50.961	3159	0.000
K	39	4.446	ug/L	333.606	475867	0.014
Ca	43	2.740	ug/L	195.507	329	0.000
> Sc	45		ug/L		1125738	1125737.885
Ti	47	0.033	ug/L	225.389	340	0.000
V	51	0.168	ug/L	319.200	2212	0.001
Cr	52	0.244	ug/L	9.267	-991	0.001
Cr	53		ug/L		86300	0.002
Mn	55	-0.004	ug/L	36.962	1253	-0.000
Fe	57	3.306	ug/L	28.450	5748	0.000
Co	59	0.008	ug/L	48.117	170	0.000
Ni	60	0.012	ug/L	50.439	147	0.000
Cu	63		ug/L		286	0.000
Cu	65	0.002	ug/L	985.325	161	0.000
Zn	66	-0.016	ug/L	210.954	355	-0.000
Zn	67		ug/L		8933	-0.001
Zn	68		ug/L		1060	-0.000
> Ge	74		ug/L		485807	485807.290
As	75	-0.085	ug/L	326.213	-341	-0.000
Se	77		ug/L		5607	0.002
Se	82	-0.069	ug/L	212.356	-6	-0.000
Kr	83		ug/L		147	-0.000
Sr	88	0.009	ug/L	22.520	385	0.000
Y	89		ug/L		90	0.000
Mo	98	0.049	ug/L	8.482	329	0.001
Ag	107	0.007	ug/L	40.832	132	0.000
Cd	111	0.011	ug/L	23.190	46	0.000
Cd	114		ug/L		95	0.000
> In	115		ug/L		326319	326319.076
Sn	120	0.030	ug/L	16.195	456	0.001
Sb	121	0.328	ug/L	9.339	2506	0.006
Sb	123		ug/L		1951	0.005
Ba	135		ug/L		67	0.000
Ba	137	0.009	ug/L	40.249	101	0.000
Ho	165		ug/L		33	0.000
> Lu	175		ug/L		541755	541754.994
Tl	205	0.245	ug/L	20.028	6401	0.009
Pb	208	0.008	ug/L	46.251	1091	0.001
Bi	209		ug/L		163	-0.000
Th	232	0.030	ug/L	3.317	2059	0.002
U	238	0.010	ug/L	22.561	1317	0.001

Sample ID: QC Std 2

Report Date/Time: Thursday, February 18, 2010 05:34:23

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		110.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		113.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		109.2			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		100.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Thursday, February 18, 2010 05:37:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 3.270

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	11.237	ug/L	0.696	15124	0.013
Be	9	0.537	ug/L	11.238	192	0.000
B	11	18.142	ug/L	1.318	4824	0.004
Na	23	315.173	ug/L	9.731	545258	0.475
Mg	24	21.792	ug/L	46.547	31706	0.027
Al	27	41.158	ug/L	17.637	86935	0.070
P	31	61.075	ug/L	8.785	10940	0.007
K	39	312.386	ug/L	1.209	1600214	1.000
Ca	43	200.591	ug/L	0.307	2125	0.002
> Sc	45		ug/L		1136060	1136060.416
Ti	47	9.486	ug/L	0.570	4650	0.004
V	51	11.611	ug/L	8.705	67461	0.058
Cr	52	11.493	ug/L	3.399	49975	0.046
Cr	53		ug/L		97365	0.012
Mn	55	5.922	ug/L	2.557	47925	0.041
Fe	57	125.424	ug/L	3.981	24462	0.017
Co	59	1.148	ug/L	3.707	7214	0.006
Ni	60	2.247	ug/L	0.651	3222	0.003
Cu	63		ug/L		4273	0.004
Cu	65	1.186	ug/L	1.024	2194	0.002
Zn	66	11.248	ug/L	0.928	13894	0.028
Zn	67		ug/L		11597	0.005
Zn	68		ug/L		11032	0.021
> Ge	74		ug/L		484774	484774.124
As	75	5.805	ug/L	9.942	7344	0.016
Se	77		ug/L		6522	0.004
Se	82	5.679	ug/L	7.107	780	0.002
Kr	83		ug/L		139	-0.000
Sr	88	12.156	ug/L	1.608	190292	0.573
Y	89		ug/L		85	-0.000
Mo	98	0.549	ug/L	1.755	2372	0.007
Ag	107	1.074	ug/L	3.356	7524	0.022
Cd	111	1.109	ug/L	1.934	2027	0.006
Cd	114		ug/L		4674	0.014
> In	115		ug/L		331879	331879.484
Sn	120	5.522	ug/L	1.833	40114	0.120
Sb	121	3.266	ug/L	2.404	21286	0.063
Sb	123		ug/L		16464	0.049
Ba	135		ug/L		3967	0.007
Ba	137	2.219	ug/L	1.273	6940	0.013
Ho	165		ug/L		33	0.000
> Lu	175		ug/L		544820	544819.714
Tl	205	1.324	ug/L	1.025	27201	0.047
Pb	208	2.452	ug/L	0.451	86512	0.157
Bi	209		ug/L		175	-0.000
Th	232	1.316	ug/L	1.699	56353	0.102
U	238	0.274	ug/L	1.526	12724	0.022

Sample ID: QC Std 3

Report Date/Time: Thursday, February 18, 2010 05:40:29

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	112.370				
Be	9	107.388				
B	11	120.946				
Na	23	126.069				
Mg	24	145.278				
Al	27	137.194				
P	31	122.150				
K	39	104.129				
Ca	43	100.296				
> Sc	45		111.0			
Ti	47	94.861				
V	51	116.114				
Cr	52	114.935				
Cr	53					
Mn	55	118.445				
Fe	57	125.424				
Co	59	114.838				
Ni	60	112.328				
Cu	63					
Cu	65	118.620				
Zn	66	112.482				
Zn	67					
Zn	68					
> Ge	74		113.2			
As	75	116.102				
Se	77					
Se	82	113.587				
Kr	83					
Sr	88	121.558				
Y	89					
Mo	98	109.839				
Ag	107	107.375				
Cd	111	110.919				
Cd	114					
> In	115		111.1			
Sn	120	110.445				
Sb	121	108.868				
Sb	123					
Ba	135					
Ba	137	110.925				
Ho	165					
> Lu	175		101.2			
Tl	205	132.395				
Pb	208	122.601				
Bi	209					
Th	232	131.563				
U	238	137.054				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Mg	24	CRDL is out of limits
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	Tl	205	CRDL is out of limits
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

Sample ID: QC Std 3

Report Date/Time: Thursday, February 18, 2010 05:40:29

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## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, February 18, 2010 05:43:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 4.271

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.083	ug/L	28.716	197	0.000
Be	9	0.093	ug/L	36.778	50	0.000
B	11	1.834	ug/L	3.389	718	0.000
Na	23	97770.767	ug/L	4.305	161929540	147.399
Mg	24	94050.480	ug/L	7.098	128466940	116.975
Al	27	95332.203	ug/L	8.072	177448187	161.538
P	31	96105.201	ug/L	1.450	12068387	10.976
K	39	99066.423	ug/L	11.721	348662495	317.242
Ca	43	90175.681	ug/L	1.283	791149	0.720
> Sc	45		ug/L		1099083	1099082.529
Ti	47	1818.187	ug/L	0.908	801659	0.729
V	51	0.211	ug/L	284.367	2421	0.001
Cr	52	2.516	ug/L	2.725	8995	0.010
Cr	53		ug/L		80550	-0.001
Mn	55	6.113	ug/L	0.363	47830	0.042
Fe	57	104542.288	ug/L	2.535	15461651	14.067
Co	59	0.251	ug/L	5.147	1620	0.001
Ni	60	2.918	ug/L	2.406	4009	0.004
Cu	63		ug/L		7718	0.007
Cu	65	3.073	ug/L	1.333	5252	0.005
Zn	66	3.711	ug/L	3.626	4632	0.009
Zn	67		ug/L		9743	0.002
Zn	68		ug/L		1981	0.002
> Ge	74		ug/L		464834	464834.194
As	75	-0.525	ug/L	73.763	-872	-0.001
Se	77		ug/L		7755	0.007
Se	82	-1.212	ug/L	10.041	-156	-0.000
Kr	83		ug/L		351	0.000
Sr	88	3.308	ug/L	1.528	49016	0.156
Y	89		ug/L		506	0.001
Mo	98	1904.214	ug/L	0.313	7308378	23.350
Ag	107	0.103	ug/L	2.068	754	0.002
Cd	111	0.519	ug/L	31.880	908	0.003
Cd	114		ug/L		10293	0.033
> In	115		ug/L		312982	312981.570
Sn	120	0.296	ug/L	1.974	2255	0.006
Sb	121	0.160	ug/L	24.497	1391	0.003
Sb	123		ug/L		1061	0.002
Ba	135		ug/L		1314	0.002
Ba	137	0.758	ug/L	0.473	2262	0.004
Ho	165		ug/L		10229	0.020
> Lu	175		ug/L		508938	508938.083
Tl	205	0.027	ug/L	27.481	2097	0.001
Pb	208	0.225	ug/L	2.270	8101	0.014
Bi	209		ug/L		6088	0.012
Th	232	0.040	ug/L	38.341	2342	0.003
U	238	-0.011	ug/L	3.709	364	-0.001

Sample ID: QC Std 4

Report Date/Time: Thursday, February 18, 2010 05:46:35

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998



### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23	97.771				
Mg	24	94.050				
Al	27	95.332				
P	31	96.105				
K	39	99.066				
Ca	43	90.176				
> Sc	45		107.4			
Ti	47	90.909				
V	51					
Cr	52	76.248				
Cr	53					
Mn	55	105.389				
Fe	57	104.542				
Co	59	106.822				
Ni	60	88.144				
Cu	63					
Cu	65	92.001				
Zn	66	98.690				
Zn	67					
Zn	68					
> Ge	74		108.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88	111.770				
Y	89					
Mo	98	95.211				
Ag	107					
Cd	111	116.941				
Cd	114					
> In	115		104.7			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137	95.029				
Ho	165					
> Lu	175		94.5			
Tl	205					
Pb	208	118.823				
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, February 18, 2010 05:49:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 5.272

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	19.216	ug/L	1.205	25047	0.023
Be	9	18.772	ug/L	3.082	5781	0.005
B	11	19.300	ug/L	3.297	4965	0.004
Na	23	98686.986	ug/L	10.687	164086546	148.781
Mg	24	91425.242	ug/L	5.937	125412244	113.710
Al	27	99550.838	ug/L	3.542	186134462	168.686
P	31	96492.620	ug/L	1.497	12159904	11.020
K	39	100034.645	ug/L	4.338	353696660	320.342
Ca	43	92104.042	ug/L	2.596	810942	0.735
Sc	45		ug/L		1103171	1103170.818
Ti	47	1870.508	ug/L	2.299	827685	0.750
V	51	21.199	ug/L	4.279	118642	0.106
Cr	52	23.170	ug/L	1.458	99935	0.092
Cr	53		ug/L		90458	0.008
Mn	55	27.455	ug/L	1.604	211226	0.190
Fe	57	105880.541	ug/L	0.474	15722972	14.247
Co	59	21.233	ug/L	2.009	127455	0.115
Ni	60	22.319	ug/L	2.552	29924	0.027
Cu	63		ug/L		71771	0.065
Cu	65	22.499	ug/L	0.904	37620	0.034
Zn	66	22.767	ug/L	1.777	27120	0.056
Zn	67		ug/L		13661	0.010
Zn	68		ug/L		18326	0.036
Ge	74		ug/L		473916	473915.712
As	75	20.461	ug/L	4.125	25877	0.055
Se	77		ug/L		9581	0.010
Se	82	19.069	ug/L	2.168	2553	0.005
Kr	83		ug/L		350	0.000
Sr	88	26.841	ug/L	2.365	401623	1.264
Y	89		ug/L		526	0.001
Mo	98	1902.519	ug/L	0.142	7405615	23.329
Ag	107	20.032	ug/L	1.107	132851	0.418
Cd	111	20.073	ug/L	1.417	34653	0.109
Cd	114		ug/L		90312	0.284
In	115		ug/L		317432	317432.199
Sn	120	21.341	ug/L	1.086	147586	0.464
Sb	121	21.334	ug/L	1.540	130588	0.410
Sb	123		ug/L		101198	0.318
Ba	135		ug/L		35377	0.069
Ba	137	21.909	ug/L	0.570	63716	0.124
Ho	165		ug/L		10328	0.020
Lu	175		ug/L		511415	511415.250
Tl	205	21.003	ug/L	1.819	381146	0.742
Pb	208	21.067	ug/L	0.214	691836	1.351
Bi	209		ug/L		6567	0.013
Th	232	22.472	ug/L	1.281	891495	1.742
U	238	23.022	ug/L	0.430	934362	1.825

Sample ID: QC Std 5

Report Date/Time: Thursday, February 18, 2010 05:52:41

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	96.078				
Be	9	93.859				
B	11	96.500				
Na	23	98.687				
Mg	24	91.425				
Al	27	99.551				
P	31	96.493				
K	39	100.035				
Ca	43	92.104				
> Sc	45		107.8			
Ti	47	93.525				
V	51	105.997				
Cr	52	99.441				
Cr	53					
Mn	55	106.413				
Fe	57	105.881				
Co	59	104.931				
Ni	60	95.748				
Cu	63					
Cu	65	96.398				
Zn	66	95.822				
Zn	67					
Zn	68					
> Ge	74		110.6			
As	75	102.304				
Se	77					
Se	82	95.346				
Kr	83					
Sr	88	116.902				
Y	89					
Mo	98	95.126				
Ag	107	100.160				
Cd	111	98.184				
Cd	114					
> In	115		106.2			
Sn	120	106.704				
Sb	121	106.672				
Sb	123					
Ba	135					
Ba	137	105.342				
Ho	165					
> Lu	175		95.0			
Tl	205	105.014				
Pb	208	104.347				
Bi	209					
Th	232	112.362				
U	238	115.111				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, February 18, 2010 05:56:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 6.273

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	49.814	ug/L	1.900	67138	0.059
Be	9	51.216	ug/L	3.163	16304	0.014
B	11	101.688	ug/L	3.189	25892	0.022
Na	23	5754.677	ug/L	3.355	9928006	8.676
Mg	24	5479.360	ug/L	2.345	7790536	6.815
Al	27	5522.551	ug/L	8.603	10697192	9.358
P	31	5254.325	ug/L	3.256	688911	0.600
K	39	4601.524	ug/L	3.471	17307853	14.736
Ca	43	4865.187	ug/L	0.687	44693	0.039
> Sc	45		ug/L		1143316	1143316.276
Ti	47	51.564	ug/L	4.069	23961	0.021
V	51	51.573	ug/L	3.356	297237	0.259
Cr	52	52.972	ug/L	0.938	239531	0.211
Cr	53		ug/L		118174	0.029
Mn	55	52.413	ug/L	3.456	416599	0.363
Fe	57	5353.738	ug/L	4.665	828526	0.720
Co	59	51.714	ug/L	2.334	321523	0.281
Ni	60	52.230	ug/L	1.686	72400	0.063
Cu	63		ug/L		178442	0.156
Cu	65	51.957	ug/L	1.854	89815	0.078
Zn	66	50.984	ug/L	2.412	63655	0.126
Zn	67		ug/L		19939	0.021
Zn	68		ug/L		48850	0.095
> Ge	74		ug/L		500481	500480.880
As	75	49.992	ug/L	2.668	67117	0.135
Se	77		ug/L		11541	0.013
Se	82	50.871	ug/L	2.568	7186	0.014
Kr	83		ug/L		145	-0.000
Sr	88	53.455	ug/L	1.630	856393	2.518
Y	89		ug/L		198	0.000
Mo	98	49.613	ug/L	3.023	206949	0.608
Ag	107	51.396	ug/L	1.425	364937	1.073
Cd	111	49.933	ug/L	1.917	92289	0.271
Cd	114		ug/L		215690	0.634
> In	115		ug/L		340017	340017.494
Sn	120	50.269	ug/L	0.747	372021	1.093
Sb	121	49.280	ug/L	1.173	322486	0.947
Sb	123		ug/L		253512	0.745
Ba	135		ug/L		92213	0.166
Ba	137	51.405	ug/L	1.518	162224	0.292
Ho	165		ug/L		68	0.000
> Lu	175		ug/L		555362	555361.717
Tl	205	50.600	ug/L	1.051	994628	1.788
Pb	208	52.127	ug/L	2.331	1857439	3.344
Bi	209		ug/L		546	0.001
Th	232	50.021	ug/L	1.448	2153698	3.877
U	238	50.908	ug/L	1.146	2242451	4.036

Sample ID: QC Std 6

Report Date/Time: Thursday, February 18, 2010 05:58:48

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	99.628				
Be	9	102.432				
B	11	101.688				
Na	23	115.094				
Mg	24	109.587				
Al	27	109.357				
P	31	105.087				
K	39	92.030				
Ca	43	97.304				
> Sc	45		111.7			
Ti	47	103.128				
V	51	103.146				
Cr	52	105.944				
Cr	53					
Mn	55	104.826				
Fe	57	107.075				
Co	59	103.427				
Ni	60	104.459				
Cu	63					
Cu	65	103.915				
Zn	66	101.968				
Zn	67					
Zn	68					
> Ge	74		116.8			
As	75	99.985				
Se	77					
Se	82	101.743				
Kr	83					
Sr	88	106.910				
Y	89					
Mo	98	99.226				
Ag	107	102.792				
Cd	111	99.867				
Cd	114					
> In	115		113.8			
Sn	120	100.539				
Sb	121	98.560				
Sb	123					
Ba	135					
Ba	137	102.811				
Ho	165					
> Lu	175		103.1			
Tl	205	101.201				
Pb	208	104.254				
Bi	209					
Th	232	100.041				
U	238	101.816				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	CCV is out of limits (+/- 10%)

### QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, February 18, 2010 06:02:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 7.274

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.047	ug/L	11.993	156	0.000
Be	9	0.008	ug/L	88.552	25	0.000
B	11	3.214	ug/L	11.718	1084	0.001
Na	23	0.056	ug/L	2060.191	6001	0.000
Mg	24	1.345	ug/L	91.106	3000	0.002
Al	27	0.670	ug/L	277.863	9003	0.001
P	31	0.939	ug/L	55.428	3135	0.000
K	39	-8.778	ug/L	106.495	430417	-0.028
Ca	43	-0.051	ug/L	7219.075	305	-0.000
Sc	45		ug/L		1131717	1131716.950
Ti	47	0.004	ug/L	1722.179	329	0.000
V	51	-0.151	ug/L	485.876	477	-0.001
Cr	52	0.096	ug/L	57.394	-1665	0.000
Cr	53		ug/L		86494	0.002
Mn	55	-0.018	ug/L	18.851	1150	-0.000
Fe	57	6.641	ug/L	8.929	6289	0.001
Co	59	0.003	ug/L	42.421	143	0.000
Ni	60	0.008	ug/L	58.920	143	0.000
Cu	63		ug/L		236	-0.000
Cu	65	0.003	ug/L	150.791	165	0.000
Zn	66	-0.023	ug/L	132.947	351	-0.000
Zn	67		ug/L		8949	-0.001
Zn	68		ug/L		1065	-0.000
Ge	74		ug/L		492819	492819.336
As	75	-0.461	ug/L	18.514	-846	-0.001
Se	77		ug/L		5909	0.002
Se	82	-0.033	ug/L	304.584	-1	-0.000
Kr	83		ug/L		161	-0.000
Sr	88	0.003	ug/L	23.334	298	0.000
Y	89		ug/L		71	-0.000
Mo	98	0.079	ug/L	22.097	464	0.001
Ag	107	0.003	ug/L	34.809	109	0.000
Cd	111	0.013	ug/L	16.407	51	0.000
Cd	114		ug/L		102	0.000
In	115		ug/L		335303	335302.706
Sn	120	0.019	ug/L	13.729	390	0.000
Sb	121	0.152	ug/L	17.385	1436	0.003
Sb	123		ug/L		1104	0.002
Ba	135		ug/L		76	0.000
Ba	137	0.003	ug/L	55.127	86	0.000
Ho	165		ug/L		33	0.000
Lu	175		ug/L		551827	551827.432
Tl	205	0.231	ug/L	23.636	6240	0.008
Pb	208	0.002	ug/L	14.593	902	0.000
Bi	209		ug/L		160	-0.000
Th	232	0.029	ug/L	9.687	2048	0.002
U	238	0.004	ug/L	37.335	1051	0.000

Sample ID: QC Std 7

Report Date/Time: Thursday, February 18, 2010 06:04:57

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Li	7						
Be	9						
B	11						
Na	23						
Mg	24						
Al	27						
P	31						
K	39						
Ca	43						
> Sc	45		110.5				
Ti	47						
V	51						
Cr	52						
Cr	53						
Mn	55						
Fe	57						
Co	59						
Ni	60						
Cu	63						
Cu	65						
Zn	66						
Zn	67						
Zn	68						
> Ge	74		115.1				
As	75						
Se	77						
Se	82						
Kr	83						
Sr	88						
Y	89						
Mo	98						
Ag	107						
Cd	111						
Cd	114						
> In	115		112.2				
Sn	120						
Sb	121						
Sb	123						
Ba	135						
Ba	137						
Ho	165						
> Lu	175		102.5				
Tl	205						
Pb	208						
Bi	209						
Th	232						
U	238						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 10

Sample Date/Time: Thursday, February 18, 2010 06:08:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 10.275

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	942.892	ug/L	1.775	1181557	1.110
Be	9	973.576	ug/L	0.992	288241	0.271
B	11	1.306	ug/L	14.800	571	0.000
Na	23	59538.627	ug/L	4.958	95524562	89.761
Mg	24	49355.878	ug/L	3.295	65336555	61.386
Al	27	53782.136	ug/L	6.181	96967191	91.132
P	31	25969.168	ug/L	3.423	3159290	2.966
K	39	51552.289	ug/L	7.563	176195753	165.086
Ca	43	47703.068	ug/L	2.199	405411	0.381
> Sc	45		ug/L		1064317	1064316.923
Ti	47	41.819	ug/L	3.754	18161	0.017
V	51	889.362	ug/L	2.157	4752817	4.465
Cr	52	903.986	ug/L	2.098	3836740	3.607
Cr	53		ug/L		587248	0.478
Mn	55	934.736	ug/L	0.751	6898329	6.481
Fe	57	53588.816	ug/L	1.481	7679485	7.211
Co	59	860.359	ug/L	3.689	4978193	4.678
Ni	60	893.989	ug/L	1.595	1151763	1.082
Cu	63		ug/L		2733029	2.568
Cu	65	860.440	ug/L	1.522	1382457	1.299
Zn	66	2296.251	ug/L	2.524	2615024	5.694
Zn	67		ug/L		427032	0.911
Zn	68		ug/L		1732235	3.770
> Ge	74		ug/L		459247	459247.389
As	75	883.053	ug/L	0.825	1091519	2.377
Se	77		ug/L		50699	0.101
Se	82	475.246	ug/L	0.944	61578	0.134
Kr	83		ug/L		227	0.000
Sr	88	995.378	ug/L	2.644	14767789	46.891
Y	89		ug/L		551	0.001
Mo	98	956.615	ug/L	2.631	3694403	11.730
Ag	107	224.174	ug/L	2.498	1474193	4.681
Cd	111	863.790	ug/L	1.774	1478600	4.695
Cd	114		ug/L		3560101	11.305
> In	115		ug/L		315002	315001.536
Sn	120	924.248	ug/L	2.576	6331433	20.104
Sb	121	231.104	ug/L	2.325	1399350	4.442
Sb	123		ug/L		1110323	3.525
Ba	135		ug/L		1489490	2.835
Ba	137	901.711	ug/L	1.336	2691213	5.122
Ho	165		ug/L		420	0.001
> Lu	175		ug/L		525452	525452.057
Tl	205	464.976	ug/L	1.332	8633805	16.429
Pb	208	4618.733	ug/L	2.335	155648236	296.259
Bi	209		ug/L		4800	0.009
Th	232	2443.326	ug/L	0.503	99502195	189.367
U	238	5020.557	ug/L	2.082	209140098	398.071

Sample ID: QC Std 10

Report Date/Time: Thursday, February 18, 2010 06:11:02

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7	94.289				
Be	9	97.358				
B	11					
Na	23	119.077				
Mg	24	98.712				
Al	27	107.564				
P	31	103.877				
K	39	103.105				
Ca	43	95.406				
> Sc	45		104.0			
Ti	47					
V	51	88.936				
Cr	52	90.399				
Cr	53					
Mn	55	93.474				
Fe	57	107.178				
Co	59	86.036				
Ni	60	89.399				
Cu	63					
Cu	65	86.044				
Zn	66	91.850				
Zn	67					
Zn	68					
> Ge	74		107.2			
As	75	88.305				
Se	77					
Se	82	95.049				
Kr	83					
Sr	88	99.538				
Y	89					
Mo	98	95.662				
Ag	107	89.670				
Cd	111	86.379				
Cd	114					
> In	115		105.4			
Sn	120	92.425				
Sb	121	92.442				
Sb	123					
Ba	135					
Ba	137	90.171				
Ho	165					
> Lu	175		97.6			
Tl	205	92.995				
Pb	208	92.375				
Bi	209					
Th	232	97.733				
U	238	100.411				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Na	23	LRS is out of limits (+/- 10%)
QC Std 10	V	51	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ag	107	LRS is out of limits (+/- 10%)

Sample ID: QC Std 10

Report Date/Time: Thursday, February 18, 2010 06:11:02

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QC Std 10

Cd

111LRS is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue

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Sample ID: QC Std 10

Report Date/Time: Thursday, February 18, 2010 06:11:02

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## ICPMS#5 - Summary Report

Sample ID: QC Std 11

Sample Date/Time: Thursday, February 18, 2010 06:14:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 11.276

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.787	ug/L	3.103	71122	0.060
Be	9	51.096	ug/L	2.027	16907	0.014
B	11	102.159	ug/L	4.550	27030	0.023
Na	23	5905.773	ug/L	10.793	10575590	8.904
Mg	24	5177.838	ug/L	7.085	7649998	6.440
Al	27	5339.279	ug/L	8.179	10752589	9.047
P	31	5287.570	ug/L	2.477	720553	0.604
K	39	4979.877	ug/L	8.569	19434555	15.947
Ca	43	5019.901	ug/L	1.547	47908	0.040
> Sc	45		ug/L		1188162	1188162.304
Ti	47	53.093	ug/L	3.355	25632	0.021
V	51	53.112	ug/L	5.474	317963	0.267
Cr	52	53.530	ug/L	2.914	251504	0.214
Cr	53		ug/L		119578	0.026
Mn	55	53.561	ug/L	1.836	442463	0.371
Fe	57	5426.258	ug/L	2.129	872845	0.730
Co	59	52.415	ug/L	2.147	338668	0.285
Ni	60	52.784	ug/L	3.266	76030	0.064
Cu	63		ug/L		185705	0.156
Cu	65	52.039	ug/L	2.320	93477	0.079
Zn	66	53.626	ug/L	2.224	67531	0.133
Zn	67		ug/L		20843	0.022
Zn	68		ug/L		50338	0.097
> Ge	74		ug/L		504921	504920.743
As	75	51.657	ug/L	3.242	69964	0.139
Se	77		ug/L		11216	0.012
Se	82	52.062	ug/L	3.891	7418	0.015
Kr	83		ug/L		165	-0.000
Sr	88	55.568	ug/L	0.731	881803	2.618
Y	89		ug/L		119	0.000
Mo	98	51.672	ug/L	1.552	213505	0.634
Ag	107	53.394	ug/L	0.507	375534	1.115
Cd	111	52.041	ug/L	0.394	95278	0.283
Cd	114		ug/L		222555	0.661
> In	115		ug/L		336780	336779.799
Sn	120	52.537	ug/L	1.430	385074	1.143
Sb	121	53.434	ug/L	1.555	346303	1.027
Sb	123		ug/L		270926	0.803
Ba	135		ug/L		95763	0.176
Ba	137	53.891	ug/L	1.297	166380	0.306
Ho	165		ug/L		57	0.000
> Lu	175		ug/L		543318	543318.388
Tl	205	53.314	ug/L	1.752	1025085	1.884
Pb	208	54.617	ug/L	0.825	1904170	3.503
Bi	209		ug/L		540	0.001
Th	232	53.351	ug/L	1.814	2247108	4.135
U	238	54.163	ug/L	2.031	2333871	4.295

Sample ID: QC Std 11

Report Date/Time: Thursday, February 18, 2010 06:17:07

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998



## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Li	7	101.574				
Be	9	102.192				
B	11	102.159				
Na	23	118.115				
Mg	24	103.557				
Al	27	105.728				
P	31	105.751				
K	39	99.598				
Ca	43	100.398				
> Sc	45		116.1			
Ti	47	106.186				
V	51	106.224				
Cr	52	107.061				
Cr	53					
Mn	55	107.122				
Fe	57	108.525				
Co	59	104.831				
Ni	60	105.567				
Cu	63					
Cu	65	104.078				
Zn	66	107.253				
Zn	67					
Zn	68					
> Ge	74		117.9			
As	75	103.315				
Se	77					
Se	82	104.123				
Kr	83					
Sr	88	111.135				
Y	89					
Mo	98	103.344				
Ag	107	106.787				
Cd	111	104.081				
Cd	114					
> In	115		112.7			
Sn	120	105.074				
Sb	121	106.868				
Sb	123					
Ba	135					
Ba	137	107.782				
Ho	165					
> Lu	175		100.9			
Tl	205	106.628				
Pb	208	109.235				
Bi	209					
Th	232	106.702				
U	238	108.326				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	Sr	88	CCV is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 12

Sample Date/Time: Thursday, February 18, 2010 06:20:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 12.277

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.102	ug/L	12.921	239	0.000
Be	9	0.044	ug/L	17.174	38	0.000
B	11	2.981	ug/L	14.524	1068	0.001
Na	23	1.971	ug/L	46.833	9670	0.003
Mg	24	1.784	ug/L	124.015	3667	0.002
Al	27	1.475	ug/L	98.906	11004	0.002
P	31	1.197	ug/L	168.175	3284	0.000
K	39	25.671	ug/L	155.289	572942	0.082
Ca	43	-2.329	ug/L	88.855	296	-0.000
Sc	45		ug/L		1176070	1176069.733
Ti	47	-0.052	ug/L	83.096	315	-0.000
V	51	0.279	ug/L	119.917	2948	0.001
Cr	52	0.206	ug/L	19.610	-1215	0.001
Cr	53		ug/L		85779	-0.001
Mn	55	-0.006	ug/L	200.102	1291	-0.000
Fe	57	1.202	ug/L	148.115	5666	0.000
Co	59	0.024	ug/L	16.331	278	0.000
Ni	60	0.026	ug/L	16.646	175	0.000
Cu	63		ug/L		389	0.000
Cu	65	0.036	ug/L	32.631	230	0.000
Zn	66	0.005	ug/L	174.795	390	0.000
Zn	67		ug/L		9279	-0.000
Zn	68		ug/L		1170	0.000
Ge	74		ug/L		497964	497963.952
As	75	-0.063	ug/L	335.348	-319	-0.000
Se	77		ug/L		5596	0.001
Se	82	0.022	ug/L	713.343	6	0.000
Kr	83		ug/L		155	-0.000
Sr	88	0.019	ug/L	10.884	568	0.001
Y	89		ug/L		75	-0.000
Mo	98	0.138	ug/L	4.180	717	0.002
Ag	107	0.010	ug/L	30.192	160	0.000
Cd	111	0.023	ug/L	53.437	70	0.000
Cd	114		ug/L		132	0.000
In	115		ug/L		340721	340721.379
Sn	120	0.109	ug/L	10.428	1069	0.002
Sb	121	0.714	ug/L	9.799	5144	0.014
Sb	123		ug/L		3957	0.011
Ba	135		ug/L		89	0.000
Ba	137	0.020	ug/L	3.699	135	0.000
Ho	165		ug/L		38	0.000
Lu	175		ug/L		545428	545427.760
Tl	205	0.360	ug/L	17.462	8662	0.013
Pb	208	0.069	ug/L	4.770	3224	0.004
Bi	209		ug/L		139	-0.000
Th	232	0.084	ug/L	4.254	4338	0.006
U	238	0.086	ug/L	6.809	4615	0.007

Sample ID: QC Std 12

Report Date/Time: Thursday, February 18, 2010 06:23:16

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		114.9			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
L Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		116.3			
As	75					
Se	77					
Se	82					
L Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		114.0			
Sn	120					
Sb	121					
L Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.3			
Tl	205					
Pb	208					
Bi	209					
Th	232					
L U	238					

## QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Thursday, February 18, 2010 07:09:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 8.285

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	53.969	ug/L	1.255	70321	0.064
Be	9	53.938	ug/L	1.516	16603	0.015
B	11	106.029	ug/L	3.637	26092	0.023
Na	23	5742.192	ug/L	8.757	9571715	8.657
Mg	24	4956.648	ug/L	2.778	6814730	6.165
Al	27	5760.481	ug/L	3.839	10794137	9.761
P	31	5470.685	ug/L	1.906	693469	0.625
K	39	4800.096	ug/L	3.449	17438951	15.371
Ca	43	5139.936	ug/L	0.741	45631	0.041
Sc	45		ug/L		1105244	1105244.123
Ti	47	54.568	ug/L	2.556	24507	0.022
V	51	53.982	ug/L	1.701	300781	0.271
Cr	52	54.312	ug/L	2.034	237454	0.217
Cr	53		ug/L		133243	0.046
Mn	55	55.834	ug/L	1.073	429096	0.387
Fe	57	5548.176	ug/L	0.755	830323	0.747
Co	59	53.851	ug/L	1.834	323714	0.293
Ni	60	54.352	ug/L	1.492	72849	0.066
Cu	63		ug/L		178338	0.161
Cu	65	53.556	ug/L	1.351	89505	0.081
Zn	66	53.904	ug/L	3.197	63593	0.134
Zn	67		ug/L		22042	0.028
Zn	68		ug/L		48493	0.100
Ge	74		ug/L		473167	473167.001
As	75	52.425	ug/L	2.239	66551	0.141
Se	77		ug/L		11980	0.015
Se	82	52.622	ug/L	2.133	7027	0.015
Kr	83		ug/L		167	0.000
Sr	88	56.225	ug/L	2.006	850459	2.649
Y	89		ug/L		188	0.000
Mo	98	52.227	ug/L	2.202	205686	0.640
Ag	107	54.561	ug/L	2.446	365730	1.139
Cd	111	52.130	ug/L	3.144	90948	0.283
Cd	114		ug/L		216119	0.673
In	115		ug/L		321083	321083.325
Sn	120	53.510	ug/L	2.308	373813	1.164
Sb	121	52.358	ug/L	2.755	323408	1.006
Sb	123		ug/L		251327	0.782
Ba	135		ug/L		93301	0.177
Ba	137	55.162	ug/L	1.453	164824	0.313
Ho	165		ug/L		68	0.000
Lu	175		ug/L		525839	525839.084
Tl	205	55.077	ug/L	2.778	1024741	1.946
Pb	208	55.921	ug/L	2.059	1886626	3.587
Bi	209		ug/L		504	0.001
Th	232	53.160	ug/L	3.939	2166534	4.120
U	238	54.431	ug/L	2.514	2269731	4.316

Sample ID: QC Std 8

Report Date/Time: Thursday, February 18, 2010 07:12:16

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	107.938				
Be	9	107.875				
B	11	106.029				
Na	23	114.844				
Mg	24	99.133				
Al	27	114.069				
P	31	109.414				
K	39	96.002				
Ca	43	102.799				
> Sc	45		108.0			
Ti	47	109.136				
V	51	107.964				
Cr	52	108.623				
Cr	53					
Mn	55	111.668				
Fe	57	110.964				
Co	59	107.703				
Ni	60	108.704				
Cu	63					
Cu	65	107.111				
Zn	66	107.808				
Zn	67					
Zn	68					
> Ge	74		110.5			
As	75	104.849				
Se	77					
Se	82	105.244				
Kr	83					
Sr	88	112.450				
Y	89					
Mo	98	104.454				
Ag	107	109.123				
Cd	111	104.260				
Cd	114					
> In	115		107.4			
Sn	120	107.020				
Sb	121	104.717				
Sb	123					
Ba	135					
Ba	137	110.324				
Ho	165					
> Lu	175		97.6			
Tl	205	110.154				
Pb	208	111.843				
Bi	209					
Th	232	106.320				
U	238	108.862				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	Al	27	CCV is out of limits (+/- 10%)
QC Std 8	Mn	55	CCV is out of limits (+/- 10%)
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)
QC Std 8	Sr	88	CCV is out of limits (+/- 10%)
QC Std 8	Ba	137	CCV is out of limits (+/- 10%)
QC Std 8	Tl	205	CCV is out of limits (+/- 10%)

Sample ID: QC Std 8

Report Date/Time: Thursday, February 18, 2010 07:12:16

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QC Std 8

Pb

208CCV is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue



## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Thursday, February 18, 2010 07:15:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 9.286

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	-0.000	ug/L	1581.495	94	-0.000
Be	9	0.007	ug/L	239.804	25	0.000
B	11	3.195	ug/L	14.024	1093	0.001
Na	23	2.726	ug/L	53.910	10671	0.004
Mg	24	0.843	ug/L	124.633	2334	0.001
Al	27	-0.939	ug/L	97.963	6001	-0.002
P	31	-0.515	ug/L	434.828	2984	-0.000
K	39	-13.588	ug/L	8.159	418031	-0.044
Ca	43	2.056	ug/L	190.979	329	0.000
Sc	45		ug/L		1145705	1145704.945
Ti	47	-0.015	ug/L	679.565	324	-0.000
V	51	-0.101	ug/L	139.273	741	-0.001
Cr	52	0.052	ug/L	97.781	-1886	0.000
Cr	53		ug/L		92384	0.006
Mn	55	-0.020	ug/L	20.373	1146	-0.000
Fe	57	2.647	ug/L	11.183	5750	0.000
Co	59	0.003	ug/L	26.297	142	0.000
Ni	60	-0.001	ug/L	217.378	132	-0.000
Cu	63		ug/L		263	0.000
Cu	65	-0.002	ug/L	352.350	157	-0.000
Zn	66	-0.013	ug/L	108.752	360	-0.000
Zn	67		ug/L		9999	0.002
Zn	68		ug/L		1136	0.000
Ge	74		ug/L		488534	488534.387
As	75	-0.320	ug/L	58.129	-658	-0.001
Se	77		ug/L		6045	0.003
Se	82	0.009	ug/L	615.498	4	0.000
Kr	83		ug/L		152	-0.000
Sr	88	0.004	ug/L	19.669	312	0.000
Y	89		ug/L		73	-0.000
Mo	98	0.039	ug/L	12.646	299	0.000
Ag	107	0.002	ug/L	68.120	101	0.000
Cd	111	0.011	ug/L	16.191	46	0.000
Cd	114		ug/L		77	-0.000
In	115		ug/L		333675	333675.378
Sn	120	0.023	ug/L	18.617	422	0.001
Sb	121	0.188	ug/L	13.486	1664	0.004
Sb	123		ug/L		1305	0.003
Ba	135		ug/L		64	0.000
Ba	137	0.008	ug/L	42.414	99	0.000
Ho	165		ug/L		35	0.000
Lu	175		ug/L		547140	547140.210
Tl	205	0.388	ug/L	11.579	9234	0.014
Pb	208	0.002	ug/L	39.947	910	0.000
Bi	209		ug/L		152	-0.000
Th	232	0.030	ug/L	3.606	2060	0.002
U	238	0.004	ug/L	20.530	1046	0.000

Sample ID: QC Std 9

Report Date/Time: Thursday, February 18, 2010 07:18:25

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		111.9			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
L Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		114.1			
As	75					
Se	77					
Se	82					
L Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		111.7			
Sn	120					
Sb	121					
L Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
L U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Thursday, February 18, 2010 07:18:25

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## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Thursday, February 18, 2010 08:12:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 8.295

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	53.262	ug/L	0.417	67473	0.063
Be	9	56.196	ug/L	2.808	16813	0.016
B	11	106.395	ug/L	4.070	25447	0.023
Na	23	5696.823	ug/L	6.605	9229868	8.589
Mg	24	5780.882	ug/L	11.017	7732199	7.190
Al	27	5579.576	ug/L	3.717	10170919	9.454
P	31	5392.176	ug/L	2.552	664387	0.616
K	39	4532.846	ug/L	1.141	16037659	14.516
Ca	43	4946.766	ug/L	2.028	42717	0.039
> Sc	45		ug/L		1074531	1074531.224
Ti	47	53.866	ug/L	3.348	23517	0.022
V	51	52.624	ug/L	3.313	285011	0.264
Cr	52	53.515	ug/L	1.044	227444	0.214
Cr	53		ug/L		140665	0.057
Mn	55	54.027	ug/L	2.353	403654	0.375
Fe	57	5427.695	ug/L	1.289	789791	0.730
Co	59	52.690	ug/L	1.756	307924	0.286
Ni	60	54.277	ug/L	1.876	70706	0.066
Cu	63		ug/L		171636	0.159
Cu	65	53.114	ug/L	0.620	86309	0.080
Zn	66	52.232	ug/L	3.364	62037	0.130
Zn	67		ug/L		23002	0.029
Zn	68		ug/L		47338	0.097
> Ge	74		ug/L		476454	476453.646
As	75	50.930	ug/L	3.405	65062	0.137
Se	77		ug/L		11924	0.015
Se	82	52.272	ug/L	3.199	7025	0.015
Kr	83		ug/L		156	-0.000
Sr	88	54.105	ug/L	2.313	824238	2.549
Y	89		ug/L		184	0.000
Mo	98	50.820	ug/L	1.913	201607	0.623
Ag	107	52.995	ug/L	1.861	357831	1.107
Cd	111	52.016	ug/L	1.775	91425	0.283
Cd	114		ug/L		214212	0.662
> In	115		ug/L		323365	323364.693
Sn	120	52.215	ug/L	0.910	367470	1.136
Sb	121	51.777	ug/L	3.207	322132	0.995
Sb	123		ug/L		252915	0.781
Ba	135		ug/L		91432	0.172
Ba	137	53.458	ug/L	1.047	161500	0.304
Ho	165		ug/L		67	0.000
> Lu	175		ug/L		531642	531641.501
Tl	205	54.406	ug/L	1.712	1023523	1.922
Pb	208	54.525	ug/L	1.178	1859963	3.497
Bi	209		ug/L		535	0.001
Th	232	52.582	ug/L	2.154	2167013	4.075
U	238	53.361	ug/L	1.974	2249809	4.231

Sample ID: QC Std 8

Report Date/Time: Thursday, February 18, 2010 08:14:53

Page 1

# Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	106.525				
Be	9	112.391				
B	11	106.395				
Na	23	113.936				
Mg	24	115.618				
Al	27	110.487				
P	31	107.844				
K	39	90.657				
Ca	43	98.935				
> Sc	45		105.0			
Ti	47	107.732				
V	51	105.248				
Cr	52	107.029				
Cr	53					
Mn	55	108.055				
Fe	57	108.554				
Co	59	105.380				
Ni	60	108.554				
Cu	63					
Cu	65	106.227				
Zn	66	104.463				
Zn	67					
Zn	68					
> Ge	74		111.2			
As	75	101.859				
Se	77					
Se	82	104.545				
Kr	83					
Sr	88	108.210				
Y	89					
Mo	98	101.640				
Ag	107	105.990				
Cd	111	104.032				
Cd	114					
> In	115		108.2			
Sn	120	104.429				
Sb	121	103.554				
Sb	123					
Ba	135					
Ba	137	106.917				
Ho	165					
> Lu	175		98.7			
Tl	205	108.811				
Pb	208	109.050				
Bi	209					
Th	232	105.165				
U	238	106.723				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Be	9	9CCV is out of limits (+/- 10%)
QC Std 8	Na	23	23CCV is out of limits (+/- 10%)
QC Std 8	Mg	24	24CCV is out of limits (+/- 10%)
QC Std 8	Al	27	27CCV is out of limits (+/- 10%)

Sample ID: QC Std 8

Report Date/Time: Thursday, February 18, 2010 08:14:53

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## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Thursday, February 18, 2010 08:18:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 9.296

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	-0.003	ug/L	144.283	82	-0.000
Be	9	0.027	ug/L	102.697	28	0.000
B	11	3.240	ug/L	17.401	1000	0.001
Na	23	1.876	ug/L	41.523	8336	0.003
Mg	24	0.246	ug/L	179.001	1333	0.000
Al	27	-0.812	ug/L	42.770	5668	-0.001
P	31	3.289	ug/L	24.280	3153	0.000
K	39	15.600	ug/L	51.456	475460	0.050
Ca	43	8.780	ug/L	43.718	353	0.000
> Sc	45		ug/L		1037844	1037844.020
Ti	47	0.128	ug/L	69.299	354	0.000
V	51	-0.022	ug/L	921.348	1091	-0.000
Cr	52	-0.129	ug/L	62.827	-2460	-0.001
Cr	53		ug/L		98894	0.021
Mn	55	-0.004	ug/L	322.230	1155	-0.000
Fe	57	8.964	ug/L	15.848	6090	0.001
Co	59	0.009	ug/L	39.805	165	0.000
Ni	60	0.003	ug/L	471.662	124	0.000
Cu	63		ug/L		264	0.000
Cu	65	0.011	ug/L	92.267	163	0.000
Zn	66	-0.017	ug/L	177.977	334	-0.000
Zn	67		ug/L		10888	0.005
Zn	68		ug/L		1289	0.001
> Ge	74		ug/L		459054	459053.872
As	75	-0.397	ug/L	115.555	-705	-0.001
Se	77		ug/L		6048	0.003
Se	82	-0.006	ug/L	2522.976	2	-0.000
Kr	83		ug/L		154	0.000
Sr	88	0.004	ug/L	39.828	301	0.000
Y	89		ug/L		66	-0.000
Mo	98	0.040	ug/L	16.637	289	0.000
Ag	107	0.005	ug/L	28.286	115	0.000
Cd	111	0.008	ug/L	37.274	39	0.000
Cd	114		ug/L		87	-0.000
> In	115		ug/L		320108	320108.372
Sn	120	0.027	ug/L	10.434	431	0.001
Sb	121	0.192	ug/L	20.224	1617	0.004
Sb	123		ug/L		1228	0.003
Ba	135		ug/L		68	0.000
Ba	137	0.002	ug/L	93.524	78	0.000
Ho	165		ug/L		34	0.000
> Lu	175		ug/L		532263	532262.996
Tl	205	0.429	ug/L	14.775	9749	0.015
Pb	208	0.003	ug/L	24.618	894	0.000
Bi	209		ug/L		173	-0.000
Th	232	0.031	ug/L	12.819	2058	0.002
U	238	0.004	ug/L	20.753	1035	0.000

Sample ID: QC Std 9

Report Date/Time: Thursday, February 18, 2010 08:21:02

Page 1



## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

## QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
[	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		107.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
[	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		107.1			
	Sn	120					
	Sb	121					
	Sb	123					
[	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

## QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Thursday, February 18, 2010 08:21:02

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# ICPMS#5 - Summary Report

Sample ID: 1202030875

Sample Date/Time: Thursday, February 18, 2010 08:32:27

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 948041|1|ba|

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\1202030875.298

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	-0.004	ug/L	297.490	100	-0.000
Be	9	-0.022	ug/L	53.291	18	-0.000
B	11	0.250	ug/L	10.438	392	0.000
Na	23	5.641	ug/L	21.178	17678	0.009
Mg	24	0.250	ug/L	137.882	1667	0.000
Al	27	0.831	ug/L	144.490	10671	0.001
P	31	7.343	ug/L	23.385	4510	0.001
K	39	29.988	ug/L	16.824	650142	0.096
Ca	43	35.344	ug/L	13.092	711	0.000
> Sc	45		ug/L		1289209	1289209.238
Ti	47	0.606	ug/L	7.728	686	0.000
V	51	-5.531	ug/L	22.269	-34421	-0.028
Cr	52	-0.112	ug/L	54.647	-2964	-0.000
Cr	53		ug/L		342203	0.191
Mn	55	0.249	ug/L	5.394	3697	0.002
Fe	57	11.325	ug/L	17.337	7973	0.002
Co	59	-0.003	ug/L	40.211	122	-0.000
Ni	60	0.050	ug/L	23.024	229	0.000
Cu	63		ug/L		473	0.000
Cu	65	0.037	ug/L	22.022	254	0.000
Zn	66	0.701	ug/L	6.661	1265	0.002
Zn	67		ug/L		54992	0.090
Zn	68		ug/L		4342	0.006
> Ge	74		ug/L		504075	504075.171
As	75	-1.564	ug/L	57.238	-2360	-0.004
Se	77		ug/L		25949	0.042
Se	82	0.212	ug/L	62.365	33	0.000
Kr	83		ug/L		144	-0.000
Sr	88	0.050	ug/L	4.012	958	0.002
Y	89		ug/L		88	0.000
Mo	98	-0.006	ug/L	42.821	106	-0.000
Ag	107	-0.005	ug/L	18.294	49	-0.000
Cd	111	0.004	ug/L	123.271	31	0.000
Cd	114		ug/L		37	-0.000
> In	115		ug/L		309271	309270.904
Sn	120	0.054	ug/L	6.744	596	0.001
Sb	121	0.009	ug/L	49.661	476	0.000
Sb	123		ug/L		364	0.000
Ba	135		ug/L		82	0.000
Ba	137	0.018	ug/L	9.055	120	0.000
Ho	165		ug/L		33	0.000
> Lu	175		ug/L		499355	499355.161
Tl	205	0.093	ug/L	6.590	3215	0.003
Pb	208	-0.006	ug/L	10.908	558	-0.000
Bi	209		ug/L		108	-0.000
Th	232	0.001	ug/L	228.021	766	0.000
U	238	-0.018	ug/L	0.877	98	-0.001

Sample ID: 1202030875

Report Date/Time: Thursday, February 18, 2010 08:35:12

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		125.9			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		117.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		103.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		92.7			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sarr	Sc	45	

### QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: 1202030876

Sample Date/Time: Thursday, February 18, 2010 08:38:38

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 948041|1|ba|

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\1202030876.299

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	43.324	ug/L	2.004	68223	0.051
Be	9	45.572	ug/L	3.662	16947	0.013
B	11	91.189	ug/L	2.989	27157	0.020
Na	23	1934.559	ug/L	5.492	3899944	2.917
Mg	24	2128.804	ug/L	15.250	3534644	2.648
Al	27	2144.013	ug/L	10.132	4858331	3.633
P	31	2161.112	ug/L	3.089	333050	0.247
K	39	1880.002	ug/L	1.306	8588378	6.020
Ca	43	2078.915	ug/L	0.557	22518	0.017
> Sc	45		ug/L		1335764	1335764.272
Ti	47	47.536	ug/L	2.964	25836	0.019
V	51	40.348	ug/L	7.260	271731	0.203
Cr	52	49.299	ug/L	3.518	260168	0.197
Cr	53		ug/L		376175	0.208
Mn	55	50.631	ug/L	5.422	469966	0.351
Fe	57	2083.004	ug/L	5.267	380247	0.280
Co	59	48.529	ug/L	4.838	352281	0.264
Ni	60	49.714	ug/L	3.717	80480	0.060
Cu	63		ug/L		195381	0.146
Cu	65	48.007	ug/L	3.605	96924	0.072
Zn	66	53.574	ug/L	2.292	68113	0.133
Zn	67		ug/L		66295	0.111
Zn	68		ug/L		53923	0.104
> Ge	74		ug/L		509859	509859.358
As	75	49.447	ug/L	0.471	67626	0.133
Se	77		ug/L		30836	0.051
Se	82	51.282	ug/L	2.323	7378	0.014
Kr	83		ug/L		183	0.000
Sr	88	56.592	ug/L	2.267	844623	2.666
Y	89		ug/L		122	0.000
Mo	98	52.473	ug/L	0.960	203943	0.643
Ag	107	54.584	ug/L	1.552	361075	1.140
Cd	111	51.349	ug/L	1.057	88436	0.279
Cd	114		ug/L		209282	0.660
> In	115		ug/L		316772	316771.559
Sn	120	51.840	ug/L	0.908	357411	1.128
Sb	121	54.568	ug/L	1.005	332644	1.049
Sb	123		ug/L		258742	0.816
Ba	135		ug/L		87450	0.169
Ba	137	52.572	ug/L	1.466	154836	0.299
Ho	165		ug/L		50	0.000
> Lu	175		ug/L		518259	518259.162
Tl	205	49.638	ug/L	1.714	910557	1.754
Pb	208	52.949	ug/L	0.973	1760890	3.396
Bi	209		ug/L		1477131	2.850
Th	232	50.343	ug/L	2.365	2022740	3.902
U	238	51.813	ug/L	1.176	2129856	4.108

Sample ID: 1202030876

Report Date/Time: Thursday, February 18, 2010 08:41:23

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# Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	136Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate	Rel. % Difference
Li	7						
Be	9						
B	11						
Na	23						
Mg	24						
Al	27						
P	31						
K	39						
Ca	43						
> Sc	45		130.5				
Ti	47						
V	51						
Cr	52						
Cr	53						
Mn	55						
Fe	57						
Co	59						
Ni	60						
Cu	63						
Cu	65						
Zn	66						
Zn	67						
Zn	68						
> Ge	74		119.0				
As	75						
Se	77						
Se	82						
Kr	83						
Sr	88						
Y	89						
Mo	98						
Ag	107						
Cd	111						
Cd	114						
> In	115		106.0				
Sn	120						
Sb	121						
Sb	123						
Ba	135						
Ba	137						
Ho	165						
> Lu	175		96.2				
Tl	205						
Pb	208						
Bi	209						
Th	232						
U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for san	Sc	45	

### QC Action

QC Action Line: Continue



## ICPMS#5 - Summary Report

Sample ID: 245690001

Sample Date/Time: Thursday, February 18, 2010 08:51:16

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\245690001.301

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.093	ug/L	5.156	260	0.000
Be	9	-0.015	ug/L	95.450	21	-0.000
B	11	17.748	ug/L	4.611	5635	0.004
Na	23	112.799	ug/L	5.187	237633	0.170
Mg	24	3.548	ug/L	56.289	7336	0.004
Al	27	11.276	ug/L	28.645	35044	0.019
P	31	9.453	ug/L	40.424	5062	0.001
K	39	209.713	ug/L	11.008	1464785	0.672
Ca	43	61.321	ug/L	6.328	1029	0.000
> Sc	45		ug/L		1355144	1355144.025
Ti	47	1.023	ug/L	6.049	948	0.000
V	51	-5.487	ug/L	24.188	-35904	-0.028
Cr	52	0.929	ug/L	19.274	2498	0.004
Cr	53		ug/L		383013	0.208
Mn	55	0.999	ug/L	5.851	10926	0.007
Fe	57	20.267	ug/L	11.882	10009	0.003
Co	59	0.004	ug/L	37.426	175	0.000
Ni	60	0.103	ug/L	11.167	326	0.000
Cu	63		ug/L		2425	0.002
Cu	65	0.487	ug/L	6.334	1186	0.001
Zn	66	1.954	ug/L	4.657	2821	0.005
Zn	67		ug/L		56152	0.093
Zn	68		ug/L		5705	0.009
> Ge	74		ug/L		502644	502644.311
As	75	-2.447	ug/L	28.821	-3558	-0.007
Se	77		ug/L		30423	0.051
Se	82	0.053	ug/L	263.411	11	0.000
Kr	83		ug/L		168	0.000
Sr	88	0.136	ug/L	2.512	2214	0.006
Y	89		ug/L		233	0.000
Mo	98	0.039	ug/L	7.570	273	0.000
Ag	107	0.001	ug/L	64.475	83	0.000
Cd	111	0.005	ug/L	202.309	34	0.000
Cd	114		ug/L		47	-0.000
> In	115		ug/L		307956	307955.760
Sn	120	0.460	ug/L	2.107	3313	0.010
Sb	121	-0.006	ug/L	8.333	387	-0.000
Sb	123		ug/L		317	-0.000
Ba	135		ug/L		491	0.001
Ba	137	0.273	ug/L	2.236	859	0.002
Ho	165		ug/L		43	0.000
> Lu	175		ug/L		508443	508442.759
Tl	205	0.242	ug/L	5.762	5951	0.009
Pb	208	0.027	ug/L	8.169	1652	0.002
Bi	209		ug/L		251	0.000
Th	232	0.002	ug/L	79.836	814	0.000
U	238	-0.010	ug/L	8.866	434	-0.001

Sample ID: 245690001

Report Date/Time: Thursday, February 18, 2010 08:54:01

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		132.4			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
L Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		117.3			
As	75					
Se	77					
Se	82					
L Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		103.0			
Sn	120					
Sb	121					
L Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		94.4			
Tl	205					
Pb	208					
Bi	209					
Th	232					
L U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sarrSc		45	

### QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: 1202030877

Sample Date/Time: Thursday, February 18, 2010 08:57:28

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\1202030877.302

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.081	ug/L	11.307	243	0.000
Be	9	-0.003	ug/L	77.838	26	-0.000
B	11	17.253	ug/L	2.556	5563	0.004
Na	23	99.716	ug/L	12.505	213600	0.150
Mg	24	4.290	ug/L	56.866	8670	0.005
Al	27	10.019	ug/L	19.581	32705	0.017
P	31	8.573	ug/L	3.178	5001	0.001
K	39	201.161	ug/L	17.878	1445427	0.644
Ca	43	56.041	ug/L	4.933	985	0.000
Sc	45		ug/L		1373415	1373414.961
Ti	47	0.913	ug/L	2.665	900	0.000
V	51	-5.825	ug/L	58.180	-38594	-0.029
Cr	52	0.846	ug/L	18.758	2091	0.003
Cr	53		ug/L		392496	0.212
Mn	55	0.937	ug/L	2.203	10489	0.006
Fe	57	13.131	ug/L	2.127	8831	0.002
Co	59	0.003	ug/L	49.104	170	0.000
Ni	60	0.086	ug/L	11.827	303	0.000
Cu	63		ug/L		2370	0.002
Cu	65	0.463	ug/L	4.101	1153	0.001
Zn	66	1.975	ug/L	1.836	2829	0.005
Zn	67		ug/L		55531	0.092
Zn	68		ug/L		5643	0.009
Ge	74		ug/L		499172	499172.154
As	75	-2.428	ug/L	43.726	-3486	-0.007
Se	77		ug/L		32237	0.055
Se	82	0.139	ug/L	78.936	23	0.000
Kr	83		ug/L		159	-0.000
Sr	88	0.130	ug/L	7.000	2167	0.006
Y	89		ug/L		179	0.000
Mo	98	0.011	ug/L	26.933	172	0.000
Ag	107	-0.001	ug/L	202.244	76	-0.000
Cd	111	0.006	ug/L	76.664	36	0.000
Cd	114		ug/L		55	-0.000
In	115		ug/L		314226	314226.002
Sn	120	0.262	ug/L	2.235	2028	0.006
Sb	121	-0.014	ug/L	20.807	342	-0.000
Sb	123		ug/L		275	-0.000
Ba	135		ug/L		398	0.001
Ba	137	0.208	ug/L	2.668	678	0.001
Ho	165		ug/L		38	0.000
Lu	175		ug/L		515073	515073.486
Tl	205	0.137	ug/L	4.851	4113	0.005
Pb	208	0.027	ug/L	5.000	1665	0.002
Bi	209		ug/L		122	-0.000
Th	232	-0.004	ug/L	27.863	619	-0.000
U	238	-0.013	ug/L	3.181	285	-0.001

Sample ID: 1202030877

Report Date/Time: Thursday, February 18, 2010 09:00:13

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		134.2			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		116.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		105.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		95.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message  
 Sc 45 Int Std for sanSc 45

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: 1202030878  
 Sample Date/Time: Thursday, February 18, 2010 09:03:40  
 Sample Type:  
 Sample Description: LANL 6020 MS  
 Number of Replicates: 3  
 Batch ID: 948041|1|ba|  
 Method File: c:\elandata\Method\6020 2.mth  
 Dataset File: c:\elandata\Dataset\100217\1202030878.303

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	43.083	ug/L	1.687	69891	0.051
Be	9	45.187	ug/L	3.747	17315	0.013
B	11	108.294	ug/L	0.816	33173	0.024
Na	23	2349.979	ug/L	9.620	4874930	3.543
Mg	24	1969.731	ug/L	10.311	3372894	2.450
Al	27	2157.669	ug/L	9.857	5032832	3.656
P	31	2168.958	ug/L	2.358	344379	0.248
K	39	2327.385	ug/L	9.957	10817044	7.453
Ca	43	2163.482	ug/L	2.841	24129	0.017
> Sc	45		ug/L		1375907	1375907.429
Ti	47	49.582	ug/L	0.156	27756	0.020
V	51	41.751	ug/L	6.574	289705	0.210
Cr	52	51.597	ug/L	5.863	280509	0.206
Cr	53		ug/L		408606	0.223
Mn	55	50.021	ug/L	1.233	478649	0.347
Fe	57	2058.482	ug/L	1.990	387435	0.277
Co	59	47.835	ug/L	3.187	357854	0.260
Ni	60	48.125	ug/L	2.364	80284	0.058
Cu	63		ug/L		199910	0.145
Cu	65	47.811	ug/L	2.986	99454	0.072
Zn	66	55.168	ug/L	2.076	67893	0.137
Zn	67		ug/L		67241	0.117
Zn	68		ug/L		53472	0.106
> Ge	74		ug/L		493571	493571.478
As	75	79.199	ug/L	3.369	104991	0.213
Se	77		ug/L		32366	0.056
Se	82	20.886	ug/L	1.801	2912	0.006
Kr	83		ug/L		190	0.000
Sr	88	57.359	ug/L	1.786	826481	2.702
Y	89		ug/L		219	0.000
Mo	98	53.338	ug/L	0.862	200143	0.654
Ag	107	56.088	ug/L	1.167	358195	1.171
Cd	111	11.011	ug/L	1.236	18326	0.060
Cd	114		ug/L		41637	0.136
> In	115		ug/L		305806	305805.502
Sn	120	54.351	ug/L	0.895	361774	1.182
Sb	121	211.546	ug/L	1.684	1243830	4.066
Sb	123		ug/L		984820	3.220
Ba	135		ug/L		89254	0.175
Ba	137	53.866	ug/L	0.605	156209	0.306
Ho	165		ug/L		304	0.001
> Lu	175		ug/L		510306	510305.929
Tl	205	89.558	ug/L	2.635	1616466	3.164
Pb	208	44.947	ug/L	0.630	1471967	2.883
Bi	209		ug/L		632	0.001
Th	232	53.356	ug/L	0.856	2111005	4.135
U	238	54.406	ug/L	0.379	2202182	4.314

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998



### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		134.4			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		115.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		102.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		94.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sarr	Sc	45	

### QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: 1202030879

Sample Date/Time: Thursday, February 18, 2010 09:09:54

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 948041|5|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\1202030879.304

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.004	ug/L	142.161	95	0.000
Be	9	-0.010	ug/L	111.624	19	-0.000
B	11	7.079	ug/L	11.185	1982	0.002
Na	23	24.905	ug/L	17.889	46744	0.038
Mg	24	0.203	ug/L	563.550	1333	0.000
Al	27	-1.173	ug/L	92.176	5334	-0.002
P	31	9.979	ug/L	7.051	4163	0.001
K	39	62.124	ug/L	43.982	663903	0.199
Ca	43	31.750	ug/L	8.767	573	0.000
> Sc	45		ug/L		1094733	1094732.866
Ti	47	0.461	ug/L	19.815	519	0.000
V	51	-0.968	ug/L	86.403	-4035	-0.005
Cr	52	0.268	ug/L	30.509	-855	0.001
Cr	53		ug/L		182888	0.093
Mn	55	0.289	ug/L	5.730	3438	0.002
Fe	57	9.554	ug/L	16.020	6510	0.001
Co	59	0.001	ug/L	163.524	125	0.000
Ni	60	0.040	ug/L	23.867	180	0.000
Cu	63		ug/L		719	0.000
Cu	65	0.137	ug/L	9.940	380	0.000
Zn	66	0.602	ug/L	1.179	1028	0.001
Zn	67		ug/L		20493	0.026
Zn	68		ug/L		2384	0.003
> Ge	74		ug/L		454457	454457.087
As	75	-1.255	ug/L	64.164	-1748	-0.003
Se	77		ug/L		14289	0.022
Se	82	0.101	ug/L	117.093	16	0.000
Kr	83		ug/L		139	-0.000
Sr	88	0.029	ug/L	3.295	655	0.001
Y	89		ug/L		96	0.000
Mo	98	0.020	ug/L	63.625	203	0.000
Ag	107	-0.002	ug/L	22.355	66	-0.000
Cd	111	0.004	ug/L	124.489	31	0.000
Cd	114		ug/L		54	-0.000
> In	115		ug/L		307730	307729.649
Sn	120	0.122	ug/L	0.983	1050	0.003
Sb	121	-0.003	ug/L	285.581	404	-0.000
Sb	123		ug/L		305	-0.000
Ba	135		ug/L		150	0.000
Ba	137	0.062	ug/L	2.635	255	0.000
Ho	165		ug/L		31	0.000
> Lu	175		ug/L		519920	519920.440
Tl	205	2.649	ug/L	16.262	50339	0.094
Pb	208	-0.000	ug/L	8.865	778	-0.000
Bi	209		ug/L		187	0.000
Th	232	0.007	ug/L	58.120	1064	0.001
U	238	-0.014	ug/L	9.054	269	-0.001

Sample ID: 1202030879

Report Date/Time: Thursday, February 18, 2010 09:12:40

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Li	7						
Be	9						
B	11						
Na	23						
Mg	24						
Al	27						
P	31						
K	39						
Ca	43						
> Sc	45		106.9				
Ti	47						
V	51						
Cr	52						
Cr	53						
Mn	55						
Fe	57						
Co	59						
Ni	60						
Cu	63						
Cu	65						
Zn	66						
Zn	67						
Zn	68						
> Ge	74		106.1				
As	75						
Se	77						
Se	82						
Kr	83						
Sr	88						
Y	89						
Mo	98						
Ag	107						
Cd	111						
Cd	114						
> In	115		103.0				
Sn	120						
Sb	121						
Sb	123						
Ba	135						
Ba	137						
Ho	165						
> Lu	175		96.5				
Tl	205						
Pb	208						
Bi	209						
Th	232						
U	238						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030879

Report Date/Time: Thursday, February 18, 2010 09:12:40

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## ICPMS#5 - Summary Report

Sample ID: 245690002

Sample Date/Time: Thursday, February 18, 2010 09:16:06

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\245690002.305

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.136	ug/L	12.784	319	0.000
Be	9	-0.002	ug/L	414.001	25	-0.000
B	11	17.308	ug/L	2.058	5348	0.004
Na	23	146.865	ug/L	9.838	298094	0.221
Mg	24	21.259	ug/L	15.502	36046	0.026
Al	27	158.675	ug/L	17.531	362275	0.269
P	31	14.230	ug/L	5.319	5642	0.002
K	39	244.527	ug/L	9.916	1568583	0.783
Ca	43	114.212	ug/L	8.045	1555	0.001
> Sc	45		ug/L		1316029	1316029.348
Ti	47	3.656	ug/L	2.252	2310	0.001
V	51	-4.896	ug/L	33.647	-30893	-0.025
Cr	52	2.790	ug/L	3.617	12208	0.011
Cr	53		ug/L		384489	0.218
Mn	55	5.782	ug/L	0.515	54258	0.040
Fe	57	106.721	ug/L	2.753	25031	0.014
Co	59	0.084	ug/L	2.799	741	0.000
Ni	60	1.273	ug/L	3.892	2181	0.002
Cu	63		ug/L		4968	0.004
Cu	65	1.141	ug/L	4.123	2451	0.002
Zn	66	2.199	ug/L	4.040	3008	0.005
Zn	67		ug/L		52387	0.089
Zn	68		ug/L		5581	0.009
> Ge	74		ug/L		483457	483456.941
As	75	-2.284	ug/L	44.807	-3206	-0.006
Se	77		ug/L		33050	0.058
Se	82	-0.011	ug/L	1092.397	2	-0.000
Kr	83		ug/L		154	-0.000
Sr	88	0.603	ug/L	1.279	8693	0.028
Y	89		ug/L		2082	0.007
Mo	98	0.121	ug/L	2.740	565	0.001
Ag	107	0.001	ug/L	223.182	81	0.000
Cd	111	0.010	ug/L	77.623	41	0.000
Cd	114		ug/L		56	-0.000
> In	115		ug/L		298168	298168.439
Sn	120	0.276	ug/L	2.640	2017	0.006
Sb	121	0.004	ug/L	113.944	430	0.000
Sb	123		ug/L		360	0.000
Ba	135		ug/L		3241	0.006
Ba	137	2.045	ug/L	3.070	5856	0.012
Ho	165		ug/L		181	0.000
> Lu	175		ug/L		498192	498192.249
Tl	205	0.888	ug/L	7.864	17195	0.031
Pb	208	0.393	ug/L	0.927	13309	0.025
Bi	209		ug/L		207	0.000
Th	232	0.054	ug/L	1.196	2826	0.004
U	238	0.133	ug/L	0.519	6070	0.011

Sample ID: 245690002

Report Date/Time: Thursday, February 18, 2010 09:18:51

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		128.5			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		112.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		99.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		92.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message  
 Sc 45 Int Std for sarrSc 45

### QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, February 18, 2010 09:28:26

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 6.307

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	53.093	ug/L	2.317	68613	0.063
Be	9	56.084	ug/L	3.719	17118	0.016
B	11	107.750	ug/L	1.899	26299	0.024
Na	23	5741.951	ug/L	1.885	9497087	8.657
Mg	24	5070.284	ug/L	3.638	6912841	6.306
Al	27	5118.469	ug/L	5.197	9511693	8.673
P	31	5419.199	ug/L	2.691	681295	0.619
K	39	4835.508	ug/L	2.019	17424385	15.485
Ca	43	5157.210	ug/L	2.996	45403	0.041
> Sc	45		ug/L		1096509	1096508.749
Ti	47	57.052	ug/L	3.021	25395	0.023
V	51	54.668	ug/L	1.864	302162	0.274
Cr	52	54.360	ug/L	1.867	235774	0.217
Cr	53		ug/L		139116	0.053
Mn	55	55.601	ug/L	4.004	423691	0.385
Fe	57	5635.968	ug/L	3.747	836216	0.758
Co	59	53.765	ug/L	1.178	320624	0.292
Ni	60	54.980	ug/L	2.295	73086	0.067
Cu	63		ug/L		178773	0.163
Cu	65	53.846	ug/L	5.111	89223	0.081
Zn	66	53.385	ug/L	1.226	64563	0.132
Zn	67		ug/L		24635	0.032
Zn	68		ug/L		49490	0.100
> Ge	74		ug/L		484935	484935.422
As	75	52.406	ug/L	2.029	68177	0.141
Se	77		ug/L		11294	0.013
Se	82	54.259	ug/L	2.135	7425	0.015
Kr	83		ug/L		156	-0.000
Sr	88	55.381	ug/L	1.625	871180	2.609
Y	89		ug/L		217	0.000
Mo	98	51.068	ug/L	0.249	209192	0.626
Ag	107	53.306	ug/L	2.530	371644	1.113
Cd	111	53.115	ug/L	0.808	96398	0.289
Cd	114		ug/L		223994	0.671
> In	115		ug/L		333839	333838.915
Sn	120	52.376	ug/L	1.567	380599	1.139
Sb	121	52.595	ug/L	0.462	337929	1.011
Sb	123		ug/L		264030	0.790
Ba	135		ug/L		95601	0.178
Ba	137	55.248	ug/L	3.348	168470	0.314
Ho	165		ug/L		79	0.000
> Lu	175		ug/L		536839	536839.132
Tl	205	54.371	ug/L	2.214	1032780	1.921
Pb	208	55.282	ug/L	2.188	1903860	3.546
Bi	209		ug/L		506	0.001
Th	232	53.060	ug/L	2.976	2207620	4.112
U	238	54.324	ug/L	3.274	2312256	4.307

Sample ID: QC Std 6

Report Date/Time: Thursday, February 18, 2010 09:31:09

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	106.186				
Be	9	112.169				
B	11	107.750				
Na	23	114.839				
Mg	24	101.406				
Al	27	101.356				
P	31	108.384				
K	39	96.710				
Ca	43	103.144				
> Sc	45		107.1			
Ti	47	114.104				
V	51	109.336				
Cr	52	108.719				
Cr	53					
Mn	55	111.202				
Fe	57	112.719				
Co	59	107.530				
Ni	60	109.959				
Cu	63					
Cu	65	107.692				
Zn	66	106.770				
Zn	67					
Zn	68					
> Ge	74		113.2			
As	75	104.812				
Se	77					
Se	82	108.519				
Kr	83					
Sr	88	110.761				
Y	89					
Mo	98	102.136				
Ag	107	106.613				
Cd	111	106.230				
Cd	114					
> In	115		111.7			
Sn	120	104.753				
Sb	121	105.190				
Sb	123					
Ba	135					
Ba	137	110.497				
Ho	165					
> Lu	175		99.7			
Tl	205	108.742				
Pb	208	110.565				
Bi	209					
Th	232	106.120				
U	238	108.648				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	9CCV is out of limits (+/- 10%)
QC Std 6	Na	23	23CCV is out of limits (+/- 10%)
QC Std 6	Ti	47	47CCV is out of limits (+/- 10%)
QC Std 6	Mn	55	55CCV is out of limits (+/- 10%)
QC Std 6	Fe	57	57CCV is out of limits (+/- 10%)
QC Std 6	Sr	88	88CCV is out of limits (+/- 10%)
QC Std 6	Ba	137	137CCV is out of limits (+/- 10%)

Sample ID: QC Std 6

Report Date/Time: Thursday, February 18, 2010 09:31:09

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QC Std 6

Pb

208CCV is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue

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Sample ID: QC Std 6

Report Date/Time: Thursday, February 18, 2010 09:31:09

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## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, February 18, 2010 09:34:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100217\QC Std 7.308

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.061	ug/L	5.599	173	0.000
Be	9	0.037	ug/L	90.104	34	0.000
B	11	4.086	ug/L	15.199	1285	0.001
Na	23	13.179	ug/L	29.476	28028	0.020
Mg	24	2.332	ug/L	16.971	4334	0.003
Al	27	-0.688	ug/L	271.400	6335	-0.001
P	31	5.614	ug/L	35.590	3691	0.001
K	39	18.141	ug/L	74.640	521048	0.058
Ca	43	6.736	ug/L	5.555	362	0.000
> Sc	45		ug/L		1117267	1117267.198
Ti	47	0.020	ug/L	57.704	332	0.000
V	51	-0.187	ug/L	508.430	223	-0.001
Cr	52	-0.184	ug/L	22.080	-2892	-0.001
Cr	53		ug/L		104573	0.019
Mn	55	0.148	ug/L	12.742	2423	0.001
Fe	57	8.074	ug/L	26.884	6423	0.001
Co	59	0.009	ug/L	35.319	175	0.000
Ni	60	0.025	ug/L	41.217	164	0.000
Cu	63		ug/L		255	0.000
Cu	65	0.007	ug/L	144.148	169	0.000
Zn	66	0.002	ug/L	912.962	380	0.000
Zn	67		ug/L		12302	0.006
Zn	68		ug/L		1556	0.001
> Ge	74		ug/L		490898	490897.886
As	75	-0.076	ug/L	488.531	-336	-0.000
Se	77		ug/L		6137	0.003
Se	82	-0.106	ug/L	53.881	-11	-0.000
Kr	83		ug/L		164	0.000
Sr	88	0.009	ug/L	28.301	395	0.000
Y	89		ug/L		73	-0.000
Mo	98	0.040	ug/L	26.906	304	0.000
Ag	107	0.004	ug/L	23.480	112	0.000
Cd	111	0.005	ug/L	96.322	37	0.000
Cd	114		ug/L		86	-0.000
> In	115		ug/L		336608	336608.417
Sn	120	0.028	ug/L	14.529	458	0.001
Sb	121	0.182	ug/L	19.717	1640	0.004
Sb	123		ug/L		1232	0.003
Ba	135		ug/L		66	0.000
Ba	137	0.007	ug/L	110.720	93	0.000
Ho	165		ug/L		32	0.000
> Lu	175		ug/L		529238	529238.226
Tl	205	0.516	ug/L	15.547	11312	0.018
Pb	208	0.004	ug/L	27.496	923	0.000
Bi	209		ug/L		174	0.000
Th	232	0.032	ug/L	11.397	2114	0.003
U	238	0.004	ug/L	50.000	1028	0.000

Sample ID: QC Std 7

Report Date/Time: Thursday, February 18, 2010 09:37:19

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		109.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		114.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		112.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Thursday, February 18, 2010 10:34:20

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.526

Tuning File: c:\elandata\Tuning\default2.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

Number of Replicates: 5

### Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD
Be	9.0		4590.3		4590.338		75.528		1.6
Mg	24.0		42116.4		42116.405		696.982		1.7
Co	58.9		113039.1		113039.071		585.621		0.5
Rh	102.9		234034.9		234034.895		1182.039		0.5
In	114.9		310309.8		310309.844		999.539		0.3
Pb	208.0		263216.0		263215.982		954.913		0.4
[> Ba	137.9		294173.7		294173.699		1883.004		0.6
[ Ba++	69.0		6584.6		0.022		0.000		0.8
[> Ce	139.9		356927.7		356927.750		1437.135		0.4
[ CeO	155.9		8337.9		0.023		0.000		1.6
Bkgd	220.0		27.8		27.800		1.441		5.2

### Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

### Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.5	4654.4
Co	59	11	6.0	116332.4
In	115	11	6.3	315547.9

## ICPMS #5 Instrument Tuning Report

File Name: default2.tun  
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	592	2072	0.622
Be	9.0	9.0	2051	2088	0.619
Mg	24.0	24.0	5679	2100	0.585
Mg	25.0	25.0	5943	2100	0.597
Mg	26.0	25.9	6153	2100	0.608
Co	58.9	58.9	14184	2125	0.600
Rh	102.9	102.9	24870	2180	0.589
In	114.9	114.9	27784	2200	0.586
Ce	139.9	139.9	33868	2220	0.598
Pb	206.0	206.0	49948	2305	0.616
Pb	207.0	207.0	50159	2240	0.651
Pb	208.0	208.0	50451	2265	0.726
U	238.1	238.1	57725	2275	0.744



## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, February 18, 2010 16:50:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\Blank.146

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9		ug/L		25	
>	Sc	45		ug/L		1211763	
	Cr	52		ug/L		-1078	
	Cr	53		ug/L		130227	
	Mn	55		ug/L		1278	
	Ni	60		ug/L		123	
[>	Lu	175		ug/L		581789	
	Tl	205		ug/L		1344	
	Pb	208		ug/L		439	
	U	238		ug/L		400	

Sample ID: Blank

Report Date/Time: Thursday, February 18, 2010 16:51:14

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Simple Linear	
Sc	45Simple Linear	
Cr	52Simple Linear	
Cr	53Simple Linear	
Mn	55Simple Linear	
Ni	60Simple Linear	
Lu	175Simple Linear	
Tl	205Simple Linear	
Pb	208Simple Linear	
U	238Simple Linear	

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate	Rel. % Difference
[	Be	9						
[>	Sc	45						
	Cr	52						
	Cr	53						
	Mn	55						
[	Ni	60						
[>	Lu	175						
	Tl	205						
	Pb	208						
[	U	238						

### QC Out Of Limits

Measurement Type   Analyte                      Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, February 18, 2010 16:53:11

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\Standard 1.147

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	10.000	ug/L	2.275	3522	0.003
>	Sc	45		ug/L		1181401	1181400.805
	Cr	52	10.000	ug/L	1.438	50927	0.044
	Cr	53		ug/L		143130	0.014
	Mn	55	10.000	ug/L	3.318	92903	0.078
	Ni	60	10.000	ug/L	2.794	16019	0.013
[>	Lu	175		ug/L		557899	557899.488
	Tl	205	10.000	ug/L	1.843	229327	0.409
	Pb	208	10.000	ug/L	2.907	418627	0.750
	U	238	10.000	ug/L	0.697	529521	0.949

Sample ID: Standard 1

Report Date/Time: Thursday, February 18, 2010 16:53:52

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, February 18, 2010 16:55:49

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\Standard 2.148

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	100.034	ug/L	3.446	34768	0.031
>	Sc	45		ug/L		1133994	1133993.963
	Cr	52	100.009	ug/L	5.100	501901	0.444
	Cr	53		ug/L		195695	0.065
	Mn	55	99.962	ug/L	1.524	848592	0.747
[	Ni	60	100.015	ug/L	3.507	155089	0.137
[>	Lu	175		ug/L		527594	527594.336
	Tl	205	99.878	ug/L	2.577	1921156	3.640
	Pb	208	99.913	ug/L	1.193	3636202	6.892
[	U	238	99.842	ug/L	0.856	4314339	8.177

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999



### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate	Rel. % Difference
[	Be	9						
[>	Sc	45						
	Cr	52						
	Cr	53						
	Mn	55						
[	Ni	60						
[>	Lu	175						
	Tl	205						
	Pb	208						
[	U	238						

### QC Out Of Limits

Measurement Type   Analyte   Mass   Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, February 18, 2010 16:58:27

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 1.149

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	48.651	ug/L	3.569	17670	0.015
>	Sc	45		ug/L		1183995	1183994.677
	Cr	52	49.287	ug/L	2.921	257865	0.219
	Cr	53		ug/L		165154	0.032
	Mn	55	50.100	ug/L	1.027	444704	0.375
	Ni	60	49.589	ug/L	5.340	80346	0.068
[>	Lu	175		ug/L		553667	553667.178
	Ti	205	50.745	ug/L	2.410	1024839	1.849
	Pb	208	51.469	ug/L	2.899	1965361	3.550
	U	238	50.563	ug/L	1.103	2293065	4.141

Sample ID: QC Std 1

Report Date/Time: Thursday, February 18, 2010 16:59:08

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9	97.302				
>	Sc	45		97.7			
	Cr	52	98.574				
	Cr	53					
	Mn	55	100.201				
	Ni	60	99.179				
>	Lu	175		95.2			
	Ti	205	101.490				
	Pb	208	102.938				
	U	238	101.125				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, February 18, 2010 17:01:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 2.150

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.029	ug/L	62.678	35	0.000
>	Sc	45		ug/L		1209830	1209830.270
	Cr	52	-0.136	ug/L	60.752	-1811	-0.001
	Cr	53		ug/L		118880	-0.009
	Mn	55	-0.002	ug/L	72.578	1254	-0.000
[	Ni	60	0.008	ug/L	88.730	136	0.000
[>	Lu	175		ug/L		579300	579299.698
	Tl	205	0.194	ug/L	8.246	5433	0.007
	Pb	208	0.007	ug/L	8.778	725	0.000
[	U	238	0.011	ug/L	6.756	917	0.001

Sample ID: QC Std 2

Report Date/Time: Thursday, February 18, 2010 17:01:51

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45			99.8		
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
[>	Lu	175			99.6		
	Tl	205					
	Pb	208					
	U	238					

### QC Out Of Limits

Measurement Type   Analyte                      MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Thursday, February 18, 2010 17:03:49

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 3.151

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.528	ug/L	12.741	216	0.000
>	Sc	45		ug/L		1190339	1190339.119
	Cr	52	10.745	ug/L	5.154	55627	0.048
	Cr	53		ug/L		147250	0.016
	Mn	55	5.886	ug/L	4.246	53586	0.044
	Ni	60	2.127	ug/L	2.979	3580	0.003
[>	Lu	175		ug/L		553462	553461.833
	Tl	205	1.226	ug/L	3.767	25996	0.045
	Pb	208	2.371	ug/L	1.388	90917	0.164
	U	238	0.283	ug/L	0.940	13218	0.023

Sample ID: QC Std 3

Report Date/Time: Thursday, February 18, 2010 17:04:30

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## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	105.501					
>	Sc	45		98.2				
	Cr	52	107.448					
	Cr	53						
	Mn	55	117.725					
	Ni	60	106.367					
[>	Lu	175		95.1				
	Tl	205	122.604					
	Pb	208	118.543					
	U	238	141.589					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

### QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, February 18, 2010 17:06:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 4.152

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.125	ug/L	14.187	60	0.000
>	Sc	45		ug/L		1031475	1031474.648
	Cr	52	2.181	ug/L	8.557	9061	0.010
	Cr	53		ug/L		98388	-0.012
	Mn	55	6.037	ug/L	3.030	47630	0.045
[	Ni	60	2.948	ug/L	4.481	4261	0.004
[>	Lu	175		ug/L		505437	505436.955
	Tl	205	0.043	ug/L	4.683	1960	0.002
	Pb	208	0.236	ug/L	3.236	8604	0.016
[	U	238	-0.002	ug/L	20.638	268	-0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
>	Sc	45		85.1				
	Cr	52	66.098					
	Cr	53						
	Mn	55	104.085					
[	Ni	60	89.056					
[>	Lu	175		86.9				
	Tl	205						
	Pb	208	124.837					
[	U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Thursday, February 18, 2010 17:07:10

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## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, February 18, 2010 17:09:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 5.153

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	19.918	ug/L	3.985	6004	0.006
Sc	45		ug/L		981195	981195.330
Cr	52	23.356	ug/L	3.041	100753	0.104
Cr	53		ug/L		111952	0.007
Mn	55	28.319	ug/L	3.594	208642	0.212
Ni	60	22.613	ug/L	4.618	30400	0.031
Lu	175		ug/L		485382	485381.559
Tl	205	21.630	ug/L	2.970	383616	0.788
Pb	208	21.945	ug/L	2.395	734972	1.514
U	238	24.879	ug/L	0.833	989267	2.038

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	99.589				
Sc	45		81.0			
Cr	52	100.239				
Cr	53					
Mn	55	109.764				
Ni	60	97.011				
Lu	175		83.4			
Tl	205	108.152				
Pb	208	108.700				
U	238	124.394				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	U	238ICSAB is out of limits

### QC Action

QC Action Line: Continue

Sample ID: QC Std 5

Report Date/Time: Thursday, February 18, 2010 17:09:51

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## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, February 18, 2010 17:11:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 6.154

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.008	ug/L	1.951	16956	0.016
Sc	45		ug/L		1083431	1083430.884
Cr	52	47.568	ug/L	3.484	227657	0.211
Cr	53		ug/L		143446	0.025
Mn	55	49.179	ug/L	4.812	399248	0.368
Ni	60	47.657	ug/L	0.807	70702	0.065
Lu	175		ug/L		551706	551705.788
Tl	205	50.233	ug/L	2.638	1011032	1.831
Pb	208	51.106	ug/L	0.968	1945184	3.525
U	238	50.580	ug/L	1.109	2285745	4.143

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	102.016					
Sc	45		89.4				
Cr	52	95.136					
Cr	53						
Mn	55	98.358					
Ni	60	95.315					
Lu	175		94.8				
Tl	205	100.466					
Pb	208	102.212					
U	238	101.161					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, February 18, 2010 17:12:32

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## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, February 18, 2010 17:14:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 7.155

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.013	ug/L	72.341	27	0.000
> Sc	45		ug/L		1111757	1111757.321
Cr	52	-0.299	ug/L	22.595	-2464	-0.001
Cr	53		ug/L		105856	-0.012
Mn	55	-0.003	ug/L	176.270	1145	-0.000
Ni	60	0.004	ug/L	55.852	119	0.000
> Lu	175		ug/L		576547	576547.348
Tl	205	0.169	ug/L	7.104	4886	0.006
Pb	208	0.006	ug/L	13.143	679	0.000
U	238	0.010	ug/L	11.058	864	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9								
> Sc	45				91.7				
Cr	52								
Cr	53								
Mn	55								
Ni	60								
> Lu	175				99.1				
Tl	205								
Pb	208								
U	238								

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 18, 2010 17:15:15

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## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, February 18, 2010 17:38:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 6.164

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.916	ug/L	2.585	16924	0.016
Sc	45		ug/L		1062434	1062433.657
Cr	52	48.877	ug/L	3.127	229507	0.217
Cr	53		ug/L		172441	0.055
Mn	55	52.119	ug/L	0.674	415099	0.390
Ni	60	51.004	ug/L	2.083	74192	0.070
Lu	175		ug/L		545896	545895.542
Tl	205	50.886	ug/L	1.819	1013466	1.854
Pb	208	51.940	ug/L	2.167	1955795	3.583
U	238	51.579	ug/L	0.848	2306503	4.224

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9	103.831				
Sc	45		87.7			
Cr	52	97.753				
Cr	53					
Mn	55	104.238				
Ni	60	102.009				
Lu	175		93.8			
Tl	205	101.772				
Pb	208	103.880				
U	238	103.158				

### QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, February 18, 2010 17:39:31

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## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, February 18, 2010 17:41:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 7.165

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.017	ug/L	18.721	28	0.000
Sc	45		ug/L		1112030	1112030.483
Cr	52	-0.409	ug/L	27.003	-3008	-0.002
Cr	53		ug/L		118483	-0.001
Mn	55	0.005	ug/L	106.624	1211	0.000
Ni	60	0.007	ug/L	56.736	124	0.000
Lu	175		ug/L		575726	575726.183
Tl	205	0.240	ug/L	1.715	6365	0.009
Pb	208	0.004	ug/L	28.604	592	0.000
U	238	0.007	ug/L	20.607	723	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		91.8				
Cr	52						
Cr	53						
Mn	55						
Ni	60						
Lu	175		99.0				
Tl	205						
Pb	208						
U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 18, 2010 17:42:14

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## ICPMS#5 - Summary Report

Sample ID: 1202030875

Sample Date/Time: Thursday, February 18, 2010 17:44:55

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\1202030875.166

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.008	ug/L	76.608	22	-0.000
Sc	45		ug/L		1255489	1255489.480
Cr	52	-0.073	ug/L	346.763	-1535	-0.000
Cr	53		ug/L		366563	0.185
Mn	55	0.230	ug/L	4.585	3486	0.002
Ni	60	0.055	ug/L	9.161	222	0.000
Lu	175		ug/L		511098	511098.125
Tl	205	0.093	ug/L	7.511	2906	0.003
Pb	208	0.006	ug/L	20.795	613	0.000
U	238	-0.005	ug/L	6.154	134	-0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		103.6			
Cr	52					
Cr	53					
Mn	55					
Ni	60					
Lu	175		87.8			
Tl	205					
Pb	208					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030875

Report Date/Time: Thursday, February 18, 2010 17:45:39

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## ICPMS#5 - Summary Report

Sample ID: 1202030876

Sample Date/Time: Thursday, February 18, 2010 17:47:40

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\1202030876.167

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	46.316	ug/L	1.149	17678	0.014
> Sc	45		ug/L		1243817	1243816.802
Cr	52	50.853	ug/L	3.544	279548	0.226
Cr	53		ug/L		397267	0.212
Mn	55	52.518	ug/L	4.410	489650	0.393
Ni	60	49.849	ug/L	0.832	84896	0.068
> Lu	175		ug/L		515376	515376.280
Tl	205	51.016	ug/L	3.974	959048	1.859
Pb	208	55.246	ug/L	1.508	1964196	3.811
U	238	54.441	ug/L	2.217	2297931	4.459

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		102.6				
Cr	52						
Cr	53						
Mn	55						
Ni	60						
> Lu	175		88.6				
Tl	205						
Pb	208						
U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030876

Report Date/Time: Thursday, February 18, 2010 17:48:24

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## ICPMS#5 - Summary Report

Sample ID: 245690001

Sample Date/Time: Thursday, February 18, 2010 17:53:16

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948041|1|ba|

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\245690001.169

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.013	ug/L	160.385	20	-0.000
> Sc	45		ug/L		1245046	1245045.776
Cr	52	1.458	ug/L	14.186	6948	0.006
Cr	53		ug/L		436395	0.243
Mn	55	1.110	ug/L	4.056	11641	0.008
Ni	60	0.098	ug/L	10.426	293	0.000
> Lu	175		ug/L		496210	496210.425
Tl	205	0.289	ug/L	1.346	6366	0.011
Pb	208	0.044	ug/L	1.347	1868	0.003
U	238	0.005	ug/L	4.633	565	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
> Sc	45		102.7			
Cr	52					
Cr	53					
Mn	55					
Ni	60					
> Lu	175		85.3			
Tl	205					
Pb	208					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245690001

Report Date/Time: Thursday, February 18, 2010 17:54:00

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## ICPMS#5 - Summary Report

Sample ID: 1202030877

Sample Date/Time: Thursday, February 18, 2010 17:56:02

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\1202030877.170

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.028	ug/L	52.216	16	-0.000
Sc	45		ug/L		1309981	1309981.316
Cr	52	0.815	ug/L	58.145	3562	0.004
Cr	53		ug/L		453478	0.239
Mn	55	1.018	ug/L	2.818	11348	0.008
Ni	60	0.088	ug/L	11.645	290	0.000
Lu	175		ug/L		507382	507381.953
Tl	205	0.159	ug/L	4.755	4103	0.006
Pb	208	0.042	ug/L	3.007	1853	0.003
U	238	-0.001	ug/L	35.000	305	-0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Be	9					
Sc	45		108.1			
Cr	52					
Cr	53					
Mn	55					
Ni	60					
Lu	175		87.2			
Tl	205					
Pb	208					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030877

Report Date/Time: Thursday, February 18, 2010 17:56:46

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## ICPMS#5 - Summary Report

Sample ID: 1202030878

Sample Date/Time: Thursday, February 18, 2010 17:58:48

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\1202030878.171

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	46.852	ug/L	4.365	17778	0.014
>	Sc	45		ug/L		1238165	1238165.258
	Cr	52	53.553	ug/L	6.038	292610	0.238
	Cr	53		ug/L		416188	0.229
	Mn	55	53.743	ug/L	4.647	498101	0.402
[	Ni	60	50.654	ug/L	4.231	85757	0.069
>	Lu	175		ug/L		513210	513210.088
	Tl	205	92.010	ug/L	3.826	1721327	3.353
	Pb	208	46.330	ug/L	2.107	1639975	3.196
[	U	238	56.567	ug/L	1.322	2377598	4.633

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate	Rel. % Difference
[	Be	9										
>	Sc	45				102.2						
	Cr	52										
	Cr	53										
	Mn	55										
[	Ni	60										
>	Lu	175				88.2						
	Tl	205										
	Pb	208										
[	U	238										

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030878

Report Date/Time: Thursday, February 18, 2010 17:59:33

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## ICPMS#5 - Summary Report

Sample ID: 1202030879

Sample Date/Time: Thursday, February 18, 2010 18:01:35

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 948041|5|baj

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\1202030879.172

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.001	ug/L	1708.133	24	0.000
>	Sc	45		ug/L		1136745	1136745.346
	Cr	52	0.295	ug/L	30.848	476	0.001
	Cr	53		ug/L		198057	0.067
	Mn	55	0.277	ug/L	6.933	3547	0.002
	Ni	60	0.045	ug/L	33.390	186	0.000
[>	Lu	175		ug/L		545256	545256.012
	Tl	205	2.452	ug/L	5.872	49973	0.089
	Pb	208	0.016	ug/L	0.868	1013	0.001
	U	238	0.006	ug/L	29.334	636	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
>	Sc	45		93.8				
	Cr	52						
	Cr	53						
	Mn	55						
	Ni	60						
[>	Lu	175		93.7				
	Tl	205						
	Pb	208						
	U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030879

Report Date/Time: Thursday, February 18, 2010 18:02:20

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## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, February 18, 2010 18:09:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 6.175

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.923	ug/L	1.170	16605	0.015
Sc	45		ug/L		1084032	1084031.756
Cr	52	47.365	ug/L	1.777	226913	0.210
Cr	53		ug/L		164927	0.045
Mn	55	50.861	ug/L	1.115	413345	0.380
Ni	60	49.289	ug/L	3.815	73146	0.067
Lu	175		ug/L		558773	558773.319
Tl	205	51.749	ug/L	0.985	1054887	1.886
Pb	208	51.641	ug/L	2.240	1990242	3.562
U	238	51.563	ug/L	0.346	2360147	4.223

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	99.846					
Sc	45		89.5				
Cr	52	94.730					
Cr	53						
Mn	55	101.723					
Ni	60	98.577					
Lu	175		96.0				
Tl	205	103.498					
Pb	208	103.281					
U	238	103.126					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, February 18, 2010 18:10:36

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## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, February 18, 2010 18:12:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 7.176

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.003	ug/L	448.581	24	0.000
> Sc	45		ug/L		1130029	1130028.702
Cr	52	-0.855	ug/L	5.992	-5295	-0.004
Cr	53		ug/L		133991	0.011
Mn	55	0.092	ug/L	5.284	1966	0.001
Ni	60	0.009	ug/L	71.280	128	0.000
> Lu	175		ug/L		578931	578930.636
Tl	205	0.388	ug/L	4.631	9508	0.014
Pb	208	0.004	ug/L	12.532	581	0.000
U	238	0.007	ug/L	10.782	713	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		93.3				
Cr	52						
Cr	53						
Mn	55						
Ni	60						
> Lu	175		99.5				
Tl	205						
Pb	208						
U	238						

### QC Out Of Limits

Measurement Type: Analyte      MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 18, 2010 18:13:19

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## ICPMS#5 - Summary Report

Sample ID: 245690002

Sample Date/Time: Thursday, February 18, 2010 18:15:19

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\245690002.177

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.004	ug/L	63.460	27	0.000
Sc	45		ug/L		1243464	1243464.216
Cr	52	0.157	ug/L	181.798	-235	0.001
Cr	53		ug/L		376862	0.196
Mn	55	5.969	ug/L	3.056	56792	0.045
Ni	60	1.341	ug/L	1.730	2405	0.002
Lu	175		ug/L		505763	505762.791
Tl	205	0.223	ug/L	2.530	5286	0.008
Pb	208	0.420	ug/L	1.677	15042	0.029
U	238	0.151	ug/L	0.212	6613	0.012

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
Sc	45		102.6			
Cr	52					
Cr	53					
Mn	55					
Ni	60					
Lu	175		86.9			
Tl	205					
Pb	208					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245690002

Report Date/Time: Thursday, February 18, 2010 18:16:03

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## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, February 18, 2010 18:27:21

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 6.181

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	48.683	ug/L	1.142	16836	0.015
> Sc	45		ug/L		1127035	1127035.295
Cr	52	48.089	ug/L	3.453	239481	0.213
Cr	53		ug/L		166294	0.040
Mn	55	50.275	ug/L	3.244	424704	0.376
Ni	60	48.336	ug/L	1.711	74590	0.066
> Lu	175		ug/L		549972	549972.378
Tl	205	50.384	ug/L	1.528	1010939	1.836
Pb	208	51.000	ug/L	2.285	1934776	3.518
U	238	50.816	ug/L	1.104	2289086	4.162

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	97.366				
> Sc	45		93.0			
Cr	52	96.177				
Cr	53					
Mn	55	100.550				
Ni	60	96.671				
> Lu	175		94.5			
Tl	205	100.768				
Pb	208	102.001				
U	238	101.631				

### QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, February 18, 2010 18:28:03

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## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, February 18, 2010 18:30:03

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100218.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 7.182

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.014	ug/L	73.272	29	0.000
> Sc	45		ug/L		1174295	1174295.345
Cr	52	-0.626	ug/L	14.648	-4297	-0.003
Cr	53		ug/L		135090	0.008
Mn	55	0.015	ug/L	52.538	1367	0.000
Ni	60	0.010	ug/L	60.139	135	0.000
> Lu	175		ug/L		578040	578040.437
Tl	205	0.263	ug/L	5.952	6867	0.010
Pb	208	0.003	ug/L	15.479	568	0.000
U	238	0.006	ug/L	7.181	693	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9						
> Sc	45		96.9				
Cr	52						
Cr	53						
Mn	55						
Ni	60						
> Lu	175		99.4				
Tl	205						
Pb	208						
U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 18, 2010 18:30:46

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## ICPMS#5 - Summary Report

Sample ID: Blank  
Sample Date/Time: Thursday, February 18, 2010 19:30:46  
Sample Type:  
Sample Description:  
Number of Replicates: 3  
Batch ID:  
Method File: c:\elandata\Method\only.mth  
Dataset File: c:\elandata\Dataset\100218\Blank.204

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		581492	
[ U	238		ug/L		688	

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[> Lu	175					
[ U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, February 18, 2010 19:32:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100218\Standard 1.205

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		545138	545138.158
[	U	238	10.000	ug/L	2.809	510225	0.935

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, February 18, 2010 19:35:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100218\Standard 2.206

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		544505	544504.519
[	U	238	99.795	ug/L	0.455	4217741	7.745

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, February 18, 2010 19:37:19

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 1.207

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		546680	546679.724
[	U	238	52.231	ug/L	0.752	2216637	4.054

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel.	% Difference
[>	Lu	175			94.0			
[	U	238	104.462					

### QC Out Of Limits

Measurement Type: Analyte      Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 1

Report Date/Time: Thursday, February 18, 2010 19:37:30

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## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, February 18, 2010 19:39:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 2.208

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		580105	580105.172
[ U	238	0.003	ug/L	15.419	812	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		99.8			
[ U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Thursday, February 18, 2010 19:41:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 3.209

### Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175			ug/L		570026	570026.005
[	U	238	0.235		ug/L	1.036	11056	0.018

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			98.0			
[	U	238	117.339					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, February 18, 2010 19:43:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 4.210

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		533220	533220.079
[	U	238	-0.008	ug/L	20.072	308	-0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		91.7				
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, February 18, 2010 19:46:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 5.211

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		575307	575306.958
[	U	238	21.403	ug/L	0.991	956296	1.661

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recov	Dilution	% Dil	Duplicate	Rel. % Difference
[>	Lu	175					98.9					
[	U	238		107.017								

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, February 18, 2010 19:48:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 6.212

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		541276	541276.374
[	U	238	52.577	ug/L	1.383	2209183	4.080

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			93.1			
[	U	238	105.154					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, February 18, 2010 19:48:28

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## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, February 18, 2010 19:50:28

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 7.213

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		567462	567462.295
[ U	238	0.011	ug/L	6.648	1169	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		97.6			
[ U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 18, 2010 19:50:40

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## ICPMS#5 - Summary Report

Sample ID: 1202030875

Sample Date/Time: Thursday, February 18, 2010 19:52:41

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\u only.mth

Dataset File: c:\elandata\Dataset\100218\1202030875.214

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		509223	509223.096
[	U	238	-0.011	ug/L	5.993	152	-0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			87.6		
[	U	238					

### QC Out Of Limits

Measurement Type: Analyte      Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202030876

Sample Date/Time: Thursday, February 18, 2010 19:54:54

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100218\1202030876.215

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		488699	488699.007
[	U	238	58.569	ug/L	1.279	2221789	4.545

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate	Rel. % Difference
[>	Lu	175			84.0			
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 245690001

Sample Date/Time: Thursday, February 18, 2010 19:57:09

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100218\245690001.216

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		496470	496469.531
[	U	238	0.002	ug/L	34.416	668	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			85.4		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 245690001

Report Date/Time: Thursday, February 18, 2010 19:57:22

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## ICPMS#5 - Summary Report

Sample ID: 1202030877

Sample Date/Time: Thursday, February 18, 2010 19:59:23

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 948041|1|ba|

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100218\1202030877.217

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		488914	488913.726
[ U	238	-0.007	ug/L	4.277	323	-0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175			84.1		
[ U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202030878

Sample Date/Time: Thursday, February 18, 2010 20:01:39

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 948041|1|ba|

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100218\1202030878.218

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		495400	495399.742
[	U	238	58.138	ug/L	0.568	2235795	4.512

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			85.2			
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202030878

Report Date/Time: Thursday, February 18, 2010 20:01:53

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## ICPMS#5 - Summary Report

Sample ID: 1202030879

Sample Date/Time: Thursday, February 18, 2010 20:03:55

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 948041|5|baj

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100218\1202030879.219

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		528840	528839.689
[	U	238	-0.003	ug/L	7.459	504	-0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	DiDuplicate	Rel. % Difference
[>	Lu	175		90.9				
[	U	238						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 245690002

Sample Date/Time: Thursday, February 18, 2010 20:06:10

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 948041|1|baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100218\245690002.220

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		485487	485487.208
[	U	238	0.154	ug/L	1.798	6362	0.012

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			83.5		
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, February 18, 2010 20:10:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\U only.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 6.222

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		518903	518902.836
[	U	238	53.822	ug/L	0.655	2168120	4.177

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			89.2		
[	U	238	107.644				

### QC Out Of Limits

Measurement Type: Analyte      MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, February 18, 2010 20:12:48

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: c:\elandata\Dataset\100218\QC Std 7.223

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ >	Lu	175		ug/L		545378	545378.174
[	U	238	-0.002	ug/L	46.278	578	-0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9998

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[ >	Lu	175		93.8				
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 18, 2010 20:13:00

Page 1

Method Name: WATER  
 Method Description: 7470A, 245.2, ILM04 ANALYST JXL  
 Element: Hg

Date: 02/15/2010  
 Technique: FI-MHS  
 Calibration Type:  
 Hg, Calc. Intercept : Linear  
 Wavelength: 253.7 nm  
 Sample Info Name: 021510W1.SIF Results Data Set Name: 021510W1

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/15/2010  
 Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0024	0.0024	09:21:41	No
2			0.0024	0.0024	09:22:16	No
Mean:			0.0024			
SD :			0.0000			
%RSD:			0.5205			

Auto-zero performed.

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 02/15/2010  
 Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0018	0.0042	09:23:38	No
2			0.0018	0.0042	09:24:13	No
Mean:			0.0018			
SD :			0.0000			
%RSD:						

[Hg] Standard number 1 applied. [0.200]

Correlation Coefficient: 1.00000

Slope: 0.00889

Intercept : 0.00000

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 02/15/2010  
 Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0042	0.0067	09:25:37	No
2			0.0041	0.0065	09:26:12	No
Mean:			0.0042			
SD :			0.0001			
%RSD:			1.7287			

[Hg] Standard number 2 applied. [0.500]

Correlation Coefficient: 0.99956

Slope: 0.00831

Intercept : 0.00004

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 02/15/2010  
 Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0182	0.0206	09:27:37	No
2			0.0179	0.0203	09:28:11	No
Mean:			0.0180			
SD :			0.0002			
%RSD:			1.1683			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99980  
Intercept : -0.00011

Slope: 0.00905

=====

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/15/2010  
Sample ID: S5.0

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0452	0.0477	09:29:36	No
2			0.0450	0.0474	09:30:11	No
Mean:			0.0451			
SD :			0.0002			
%RSD:			0.4113			

[Hg] Standard number 4 applied. [5.000]  
Correlation Coefficient: 0.99997 Slope: 0.00905  
Intercept : -0.00011

=====

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/15/2010  
Sample ID: S10

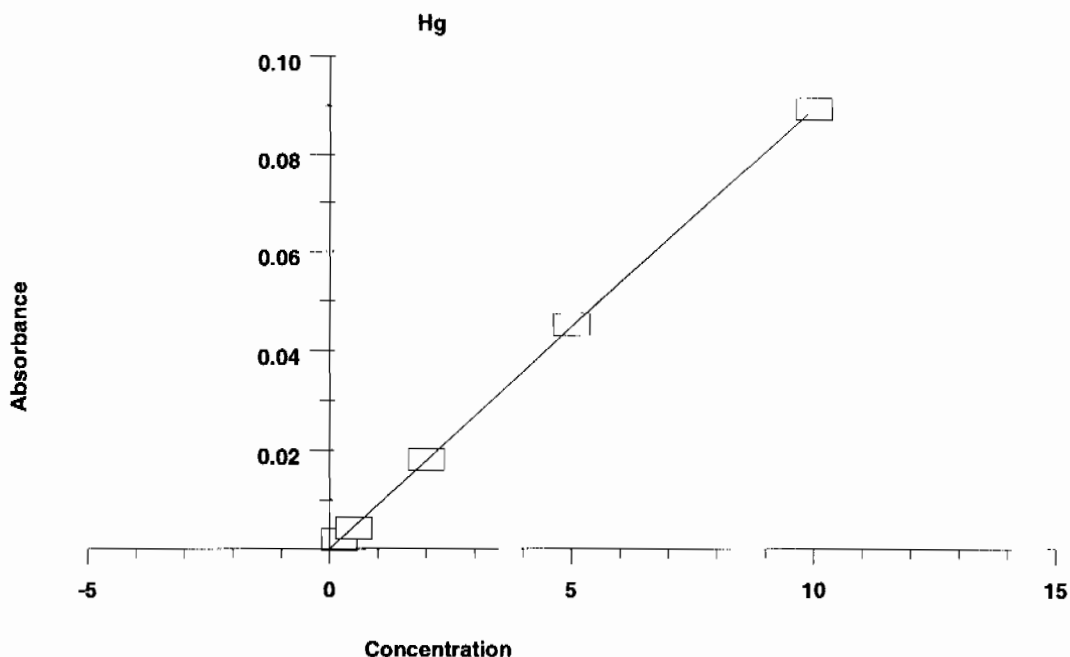
Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0897	0.0921	09:31:37	No
2			0.0887	0.0911	09:32:12	No
Mean:			0.0892			
SD :			0.0007			
%RSD:			0.8016			

[Hg] Standard number 5 applied. [10.00]  
Correlation Coefficient: 0.99997 Slope: 0.00894  
Intercept : 0.00001

#### Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0024	---	---	---	---
S0.2	0.0018	0.200	0.198	0.0000	---
S0.5	0.0042	0.500	0.465	0.0001	1.7
S2.0	0.0180	2.000	2.017	0.0002	1.2
S5.0	0.0451	5.000	5.046	0.0002	0.4
S10	0.0892	10.000	9.975	0.0007	0.8
Correlation Coefficient: 0.99997		Slope:	0.00894	Intercept: 0.0000	





=====  
 Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 02/15/2010  
 Sample ID: ICV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.048	5.048	0.0451	0.0476	09:33:41	No
2	4.991	4.991	0.0446	0.0471	09:34:16	No
Mean:	5.020	5.020	0.0449			
SD :	0.0405	0.0405	0.0004			
%RSD:	0.8	0.8	0.8076			

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 02/15/2010  
 Sample ID: ICB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0002	0.0022	09:35:38	No
2	-0.055	-0.055	-0.0005	0.0019	09:36:13	No
Mean:	-0.042	-0.042	-0.0004			
SD :	0.0195	0.0195	0.0002			
%RSD:	47.1	47.1	48.4306			

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 02/15/2010  
 Sample ID: CRDL

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.200	0.200	0.0018	0.0042	09:37:35	No
2	0.193	0.193	0.0017	0.0042	09:38:10	No
Mean:	0.197	0.197	0.0018			
SD :	0.0048	0.0048	0.0000			
%RSD:	2.4	2.4	2.4178			

QC value within specified limits.

=====

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/15/2010

Sample ID: CCV

-----

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.071	5.071	0.0453	0.0478	09:39:35	No
2	5.003	5.003	0.0447	0.0472	09:40:10	No
Mean:	5.037	5.037	0.0450			
SD :	0.0480	0.0480	0.0004			
%RSD:	1.0	1.0	0.9530			

QC value within specified limits.

=====

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/15/2010

Sample ID: CCB

-----

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.034	-0.034	-0.0003	0.0021	09:41:39	No
2	-0.033	-0.033	-0.0003	0.0021	09:42:13	No
Mean:	-0.034	-0.034	-0.0003			
SD :	0.0001	0.0001	0.0000			
%RSD:	0.3	0.3	0.3404			

QC value within specified limits.

=====

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/15/2010

Sample ID: 1202030001|i||947659|MB

-----

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.032	-0.032	-0.0003	0.0021	09:43:40	No
2	-0.041	-0.041	-0.0004	0.0021	09:44:15	No
Mean:	-0.037	-0.037	-0.0003			
SD :	0.0063	0.0063	0.0001			
%RSD:	17.1	17.1	17.6447			

=====

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/15/2010

Sample ID: 1202030002|i||LCS

-----

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.137	2.137	0.0191	0.0215	09:45:39	No
2	2.109	2.109	0.0189	0.0213	09:46:14	No
Mean:	2.123	2.123	0.0190			
SD :	0.0200	0.0200	0.0002			
%RSD:	0.9	0.9	0.9436			

=====

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/15/2010

Sample ID: 245605002|i|||

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Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0024	09:47:39	No
2	0.002	0.002	0.0000	0.0025	09:48:14	No
Mean:	0.000	0.000	0.0000			
SD :	0.0015	0.0015	0.0000			
%RSD:	336.1	336.1	93.9525			

=====

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/15/2010

Sample ID: 245605003|i|||

%RSD: 0.7 0.7 0.6795

=====  
 Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 02/15/2010  
 Sample ID: 1202030005|i|5||SDILT

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.099	-0.099	-0.0009	0.0016	10:01:28	No
2	-0.104	-0.104	-0.0009	0.0015	10:02:03	No
Mean:	-0.102	-0.102	-0.0009			
SD :	0.0037	0.0037	0.0000			
%RSD:	3.7	3.7	3.7087			

=====  
 Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 02/15/2010  
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.145	5.145	0.0460	0.0484	10:03:28	No
2	5.088	5.088	0.0455	0.0479	10:04:03	No
Mean:	5.117	5.117	0.0457			
SD :	0.0403	0.0403	0.0004			
%RSD:	0.8	0.8	0.7877			

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 02/15/2010  
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.043	-0.043	-0.0004	0.0021	10:05:31	No
2	-0.037	-0.037	-0.0003	0.0021	10:06:06	No
Mean:	-0.040	-0.040	-0.0003			
SD :	0.0038	0.0038	0.0000			
%RSD:	9.4	9.4	9.6735			

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 02/15/2010  
 Sample ID: 245673002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.031	-0.031	-0.0003	0.0022	10:07:31	No
2	-0.051	-0.051	-0.0004	0.0020	10:08:06	No
Mean:	-0.041	-0.041	-0.0004			
SD :	0.0135	0.0135	0.0001			
%RSD:	33.0	33.0	33.9271			

=====  
 Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 02/15/2010  
 Sample ID: 245673003|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0004	0.0020	10:09:30	No
2	-0.053	-0.053	-0.0005	0.0020	10:10:04	No
Mean:	-0.050	-0.050	-0.0004			
SD :	0.0044	0.0044	0.0000			
%RSD:	8.7	8.7	8.9549			

=====  
 Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 02/15/2010  
 Sample ID: 245673004|i|||

%RSD:

=====

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 02/15/2010  
 Sample ID: 1202041608|i|||DUP

-----

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.052	-0.052	-0.0005	0.0020	10:23:29	No
2	-0.055	-0.055	-0.0005	0.0019	10:24:04	No
Mean:	-0.054	-0.054	-0.0005			
SD :	0.0019	0.0019	0.0000			
%RSD:	3.6	3.6	3.6715			

-----

=====

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 02/15/2010  
 Sample ID: 1202041609|i|||MS

-----

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.104	2.104	0.0188	0.0212	10:25:32	No
2	2.113	2.113	0.0189	0.0213	10:26:07	No
Mean:	2.108	2.108	0.0189			
SD :	0.0059	0.0059	0.0001			
%RSD:	0.3	0.3	0.2779			

-----

=====

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 02/15/2010  
 Sample ID: CCV

-----

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.147	5.147	0.0460	0.0484	10:27:34	No
2	5.128	5.128	0.0459	0.0483	10:28:09	No
Mean:	5.137	5.137	0.0459			
SD :	0.0129	0.0129	0.0001			
%RSD:	0.3	0.3	0.2516			

QC value within specified limits.

-----

=====

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 02/15/2010  
 Sample ID: CCB

-----

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.046	-0.046	-0.0004	0.0020	10:29:38	No
2	-0.049	-0.049	-0.0004	0.0020	10:30:12	No
Mean:	-0.048	-0.048	-0.0004			
SD :	0.0018	0.0018	0.0000			
%RSD:	3.7	3.7	3.8110			

QC value within specified limits.

-----

=====

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 02/15/2010  
 Sample ID: 1202041610|i|5||SDILT

-----

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.092	-0.092	-0.0008	0.0016	10:31:36	No
2	-0.100	-0.100	-0.0009	0.0015	10:32:11	No
Mean:	-0.096	-0.096	-0.0008			
SD :	0.0063	0.0063	0.0001			
%RSD:	6.6	6.6	6.6348			

-----

=====

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 02/15/2010  
 Sample ID: 246789002|i|||

%RSD: 5.9 5.9 5.9632

=====  
 Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/15/2010  
 Sample ID: 1202041424|i||MS

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.068	2.068	0.0185	0.0209	10:45:09	No
2	2.071	2.071	0.0185	0.0209	10:45:44	No
Mean:	2.070	2.070	0.0185			
SD :	0.0017	0.0017	0.0000			

%RSD:

=====  
 Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 02/15/2010  
 Sample ID: 1202041425|i||MSD

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.101	2.101	0.0188	0.0212	10:47:08	No
2	2.106	2.106	0.0188	0.0213	10:47:43	No
Mean:	2.103	2.103	0.0188			
SD :	0.0033	0.0033	0.0000			

%RSD: 0.2 0.2 0.1587

=====  
 Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 02/15/2010  
 Sample ID: 1202041435|i|5||SDILT

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.119	-0.119	-0.0010	0.0014	10:49:07	No
2	-0.125	-0.125	-0.0011	0.0013	10:49:42	No
Mean:	-0.122	-0.122	-0.0011			
SD :	0.0046	0.0046	0.0000			

%RSD: 3.7 3.7 3.7805

=====  
 Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 02/15/2010  
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.101	5.101	0.0456	0.0480	10:51:08	No
2	5.106	5.106	0.0456	0.0481	10:51:43	No
Mean:	5.103	5.103	0.0456			
SD :	0.0035	0.0035	0.0000			

%RSD:

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 02/15/2010  
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.095	-0.095	-0.0008	0.0016	10:53:11	No
2	-0.099	-0.099	-0.0009	0.0016	10:53:46	No
Mean:	-0.097	-0.097	-0.0009			
SD :	0.0026	0.0026	0.0000			

%RSD: 2.7 2.7 2.7104

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 02/15/2010  
 Sample ID: 246914003|i|||

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Stored
1      -0.083     -0.083    -0.0007   0.0017    10:55:12  No
2      -0.092     -0.092    -0.0008   0.0016    10:55:47  No
Mean:   -0.087     -0.087    -0.0008
SD :    0.0064     0.0064    0.0001
%RSD:    7.3       7.3       7.3722

```

```

=====
Element: Hg      Seq. No.: 49      AS Loc.: 43      Date: 02/15/2010
Sample ID: 246914004|i|||

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Stored
1      -0.109     -0.109    -0.0010   0.0015    10:57:12  No
2      -0.113     -0.113    -0.0010   0.0014    10:57:47  No
Mean:   -0.111     -0.111    -0.0010
SD :    0.0031     0.0031    0.0000
%RSD:    2.8       2.8       2.7827

```

```

=====
Element: Hg      Seq. No.: 50      AS Loc.: 44      Date: 02/15/2010
Sample ID: 246914005|i|||

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Stored
1      -0.092     -0.092    -0.0008   0.0016    10:59:13  No
2      -0.098     -0.098    -0.0009   0.0016    10:59:48  No
Mean:   -0.095     -0.095    -0.0008
SD :    0.0039     0.0039    0.0000
%RSD:    4.1       4.1       4.1164

```

```

=====
Element: Hg      Seq. No.: 51      AS Loc.: 45      Date: 02/15/2010
Sample ID: 1202029965|i||947646|MB

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Stored
1      -0.118     -0.118    -0.0010   0.0014    11:01:14  No
2      -0.112     -0.112    -0.0010   0.0014    11:01:48  No
Mean:   -0.115     -0.115    -0.0010
SD :    0.0040     0.0040    0.0000
%RSD:    3.4       3.4       3.4701

```

```

=====
Element: Hg      Seq. No.: 52      AS Loc.: 46      Date: 02/15/2010
Sample ID: 1202029966|i||LCS

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Stored
1      2.047       2.047     0.0183    0.0207    11:03:14  No
2      2.027       2.027     0.0181    0.0206    11:03:49  No
Mean:   2.037       2.037     0.0182
SD :    0.0137     0.0137    0.0001
%RSD:    0.7       0.7       0.6701

```

```

=====
Element: Hg      Seq. No.: 53      AS Loc.: 47      Date: 02/15/2010
Sample ID: 245681001|i|||

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Stored
1      -0.114       -0.114    -0.0010   0.0014    11:05:16  No
2      -0.107       -0.107    -0.0009   0.0015    11:05:51  No
Mean:   -0.111       -0.111    -0.0010
SD :    0.0051       0.0051    0.0000

```

%RSD: 4.6 4.6 4.6202

=====  
 Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 02/15/2010  
 Sample ID: 245681002|i|||

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.113	-0.113	-0.0010	0.0014	11:07:15	No
2	-0.118	-0.118	-0.0010	0.0014	11:07:50	No
Mean:	-0.115	-0.115	-0.0010			
SD :	0.0038	0.0038	0.0000			
%RSD:	3.3	3.3	3.3203			

=====  
 Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 02/15/2010  
 Sample ID: 245690001|i|||

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.102	-0.102	-0.0009	0.0015	11:09:10	No
2	-0.107	-0.107	-0.0009	0.0015	11:09:45	No
Mean:	-0.105	-0.105	-0.0009			
SD :	0.0036	0.0036	0.0000			
%RSD:	3.4	3.4	3.4771			

=====  
 Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 02/15/2010  
 Sample ID: 245690002|i|||

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.099	-0.099	-0.0009	0.0016	11:11:06	No
2	-0.109	-0.109	-0.0010	0.0015	11:11:41	No
Mean:	-0.104	-0.104	-0.0009			
SD :	0.0072	0.0072	0.0001			
%RSD:	6.9	6.9	6.9975			

=====  
 Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 02/15/2010  
 Sample ID: 245807001|i|||

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.110	-0.110	-0.0010	0.0015	11:13:02	No
2	-0.115	-0.115	-0.0010	0.0014	11:13:36	No
Mean:	-0.112	-0.112	-0.0010			
SD :	0.0033	0.0033	0.0000			
%RSD:	3.0	3.0	2.9987			

=====  
 Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 02/15/2010  
 Sample ID: CCV

-----  

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.081	5.081	0.0454	0.0479	11:15:01	No
2	5.124	5.124	0.0458	0.0482	11:15:36	No
Mean:	5.102	5.102	0.0456			
SD :	0.0304	0.0304	0.0003			
%RSD:	0.6	0.6	0.5954			

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 02/15/2010  
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.104	-0.104	-0.0009	0.0015	11:17:04	No
2	-0.111	-0.111	-0.0010	0.0014	11:17:39	No
Mean:	-0.108	-0.108	-0.0010			
SD :	0.0046	0.0046	0.0000			
%RSD:	4.2	4.2	4.2806			

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 02/15/2010  
 Sample ID: 1202029967|i|||DUP  
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.107	-0.107	-0.0009	0.0015	11:19:04	No
2	-0.116	-0.116	-0.0010	0.0014	11:19:39	No
Mean:	-0.111	-0.111	-0.0010			
SD :	0.0065	0.0065	0.0001			
%RSD:	5.8	5.8	5.8805			

=====  
 Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 02/15/2010  
 Sample ID: 1202029968|i|||MS  
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	2.104	2.104	0.0188	0.0212	11:21:01	No
2	2.120	2.120	0.0190	0.0214	11:21:36	No
Mean:	2.112	2.112	0.0189			
SD :	0.0117	0.0117	0.0001			
%RSD:	0.6	0.6	0.5520			

=====  
 Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 02/15/2010  
 Sample ID: 1202029969|i|5||SDILT  
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.149	-0.149	-0.0013	0.0011	11:22:58	No
2	-0.148	-0.148	-0.0013	0.0011	11:23:33	No
Mean:	-0.148	-0.148	-0.0013			
SD :	0.0006	0.0006	0.0000			
%RSD:	0.4	0.4	0.3912			

=====  
 Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 02/15/2010  
 Sample ID: 245807002|i|||  
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.112	-0.112	-0.0010	0.0014	11:24:56	No
2	-0.117	-0.117	-0.0010	0.0014	11:25:30	No
Mean:	-0.115	-0.115	-0.0010			
SD :	0.0031	0.0031	0.0000			
%RSD:	2.7	2.7	2.7422			

=====  
 Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 02/15/2010  
 Sample ID: 1202039059|i||951455|MB  
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0008	0.0016	11:26:55	No
2	-0.105	-0.105	-0.0009	0.0015	11:27:29	No
Mean:	-0.099	-0.099	-0.0009			
SD :	0.0076	0.0076	0.0001			



%RSD: 7.6 7.6 7.7159

=====  
 Element: Hg Seq. No.: 65 AS Loc.: 57 Date: 02/15/2010  
 Sample ID: 1202039060|i||LCS  
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.267	2.267	0.0203	0.0227	11:28:54	No
2	2.265	2.265	0.0203	0.0227	11:29:28	No
Mean:	2.266	2.266	0.0203			
SD :	0.0011	0.0011	0.0000			

%RSD:

=====  
 Element: Hg Seq. No.: 66 AS Loc.: 58 Date: 02/15/2010  
 Sample ID: 246264001|i||  
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.097	-0.097	-0.0009	0.0016	11:30:52	No
2	-0.104	-0.104	-0.0009	0.0015	11:31:26	No
Mean:	-0.101	-0.101	-0.0009			
SD :	0.0048	0.0048	0.0000			

%RSD: 4.7 4.7 4.7837

=====  
 Element: Hg Seq. No.: 67 AS Loc.: 59 Date: 02/15/2010  
 Sample ID: 246269001|i||  
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.098	-0.098	-0.0009	0.0016	11:32:50	No
2	-0.108	-0.108	-0.0010	0.0015	11:33:24	No
Mean:	-0.103	-0.103	-0.0009			
SD :	0.0072	0.0072	0.0001			

%RSD: 7.0 7.0 7.0414

=====  
 Element: Hg Seq. No.: 68 AS Loc.: 60 Date: 02/15/2010  
 Sample ID: 246278001|i||  
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.110	-0.110	-0.0010	0.0015	11:34:49	No
2	-0.110	-0.110	-0.0010	0.0015	11:35:24	No
Mean:	-0.110	-0.110	-0.0010			
SD :	0.0002	0.0002	0.0000			

%RSD: 0.2 0.2 0.1960

=====  
 Element: Hg Seq. No.: 69 AS Loc.: 61 Date: 02/15/2010  
 Sample ID: 246282001|i||  
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0008	0.0016	11:36:50	No
2	-0.113	-0.113	-0.0010	0.0014	11:37:25	No
Mean:	-0.104	-0.104	-0.0009			
SD :	0.0134	0.0134	0.0001			

%RSD: 12.9 12.9 13.0431

=====  
 Element: Hg Seq. No.: 70 AS Loc.: 7 Date: 02/15/2010  
 Sample ID: CCV  
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
--------	--------------------	-----------------	-------------------	----------------	------	----------------

#	µg/L	µg/L	Signal	Height		Stored
1	5.193	5.193	0.0464	0.0489	11:38:52	No
2	5.202	5.202	0.0465	0.0489	11:39:27	No
Mean:	5.197	5.197	0.0465			
SD :	0.0063	0.0063	0.0001			
%RSD:	0.1	0.1	0.1218			

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 02/15/2010  
 Sample ID: CCB  
 =====

Repl	SampleConc	StdConc	BlkCorr	Peak	Time	Peak
#	µg/L	µg/L	Signal	Height		Stored
1	-0.094	-0.094	-0.0008	0.0016	11:40:54	No
2	-0.097	-0.097	-0.0009	0.0016	11:41:29	No
Mean:	-0.096	-0.096	-0.0008			
SD :	0.0024	0.0024	0.0000			
%RSD:	2.5	2.5	2.5414			

QC value within specified limits.

=====  
 Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 02/15/2010  
 Sample ID: 246292001|i|||  
 =====

Repl	SampleConc	StdConc	BlkCorr	Peak	Time	Peak
#	µg/L	µg/L	Signal	Height		Stored
1	-0.097	-0.097	-0.0009	0.0016	11:42:56	No
2	-0.091	-0.091	-0.0008	0.0016	11:43:31	No
Mean:	-0.094	-0.094	-0.0008			
SD :	0.0042	0.0042	0.0000			
%RSD:	4.5	4.5	4.5299			

=====  
 Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 02/15/2010  
 Sample ID: 246292002|i|||  
 =====

Repl	SampleConc	StdConc	BlkCorr	Peak	Time	Peak
#	µg/L	µg/L	Signal	Height		Stored
1	-0.126	-0.126	-0.0011	0.0013	11:44:53	No
2	-0.128	-0.128	-0.0011	0.0013	11:45:28	No
Mean:	-0.127	-0.127	-0.0011			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.9	0.9	0.8800			

=====  
 Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 02/15/2010  
 Sample ID: 246299001|i|||  
 =====

Repl	SampleConc	StdConc	BlkCorr	Peak	Time	Peak
#	µg/L	µg/L	Signal	Height		Stored
1	-0.113	-0.113	-0.0010	0.0014	11:46:48	No
2	-0.116	-0.116	-0.0010	0.0014	11:47:23	No
Mean:	-0.115	-0.115	-0.0010			
SD :	0.0022	0.0022	0.0000			
%RSD:	1.9	1.9	1.9110			

=====  
 Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 02/15/2010  
 Sample ID: 246306001|i|||  
 =====

Repl	SampleConc	StdConc	BlkCorr	Peak	Time	Peak
#	µg/L	µg/L	Signal	Height		Stored
1	-0.096	-0.096	-0.0008	0.0016	11:48:44	No
2	-0.096	-0.096	-0.0008	0.0016	11:49:18	No
Mean:	-0.096	-0.096	-0.0008			
SD :	0.0002	0.0002	0.0000			

# Miscellaneous

# Prep LogBook

Analyst: TXB3 Verified by: \_\_\_\_\_

Batch: 947645

Lab SOP: GL-MA-E-010 REV# 23

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202029965		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1		
LCS	1202029966		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	.2	mL
SAMPLE	245681001		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1		
SAMPLE	245681002		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1		
SAMPLE	245690001		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1		
SAMPLE	245690002		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1		
SAMPLE	245807001		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1		
DUP	1202029967	245807001	SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1		
MS	1202029968	245807001	SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1		
SDILT	1202029969	245807001	SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1		
SAMPLE	245807002		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1		

Reagent/Solvent Lot ID	Amount	Description	Comments	Digestion Start Date: 12-FEB-10 14:10	Digestion End Date: 12-FEB-10 16:10
1176183	1 mL	Sulfuric Acid, Concentrated			
1257474-1	.5 mL	NITRIC ACID			
1261483-C	1.5 mL	5% Potassium Persulfate			
1264984-C	3 mL	5% KMnO4 solution			
1255532-C	1 mL	Hg reducing agent			
WHG100212-06	500 uL	Mercury Working 2nd Source 5.0/CCV			
WHG100212-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA			
WHG100212-02	50 uL	Mercury Working 1st Source CAL 0.5			
WHG100212-05	1 mL	Mercury Working 1st Source CAL 10.0			
WHG100212-03	200 uL	Mercury Working 1st Source CAL 2.0			
WHG100212-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV			

# Prep LogBook

Analyst: BCDI Verified by: \_\_\_\_\_

Batch: 948036

Lab SOP: GL-MA-E-006 REV# 9

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202030862		SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	.25	mL
LCS	1202030863		SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	.25	mL
SAMPLE	245690001		SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	.25	mL
DUP	1202030864	245690001	SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	.25	mL
MS	1202030865	245690001	SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	.25	mL
SDILT	1202030866	245690001	SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	.25	mL
SAMPLE	245690002		SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	.25	mL
SAMPLE	245809001		SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	.25	mL

## Comments

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

# Prep LogBook

Analyst: BCD1 Verified by: \_\_\_\_\_

Batch: 948039

Lab SOP: GL-MA-E-006 REV# 9

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix	Spike Amount	Spike Units
MB	1202030875		SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER	.5	mL
LCS	1202030876		SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER	.5	mL
SAMPLE	245690001		SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER	.5	mL
DUP	1202030877	245690001	SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER	.5	mL
MS	1202030878	245690001	SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER	.5	mL
SDILT	1202030879	245690001	SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER	.5	mL
SAMPLE	245690002		SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER	.5	mL
SAMPLE	245809001		SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER	.5	mL

## Comments

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

# Standard Logbook

**Serial ID:** UHG1167639-01      **Opened:** 13-AUG-09      **Amount :** 125 mL  
**Name:** MHGSTOCK1      **Received:** 13-AUG-09      **Catalog Number :** PLHG4-2Y  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 15-37HG  
**Employee:** Bryan Davis      **Solvent :** 10% HNO3  
**Supplier:** Spex  
**Description:** Mercury Source Standard #1 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

**Serial ID:** UHG1167641-02      **Opened:** 13-AUG-09      **Amount :** 100 mL  
**Name:** MHGSTOCK2      **Received:** 13-AUG-09      **Catalog Number :** AHG1KN-100  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 4905530  
**Employee:** Bryan Davis      **Solvent :** 3% HNO3  
**Supplier:** Ricca Chemical Company  
**Description:** Mercury Source Standard #2 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

**Serial ID:** UI090422-40      **Opened:** 04-MAY-09      **Amount :** 500 mL  
**Name:** TRACE ICP ICSA SOLN A      **Received:** 22-APR-09      **Catalog Number :** 160005-01-03  
**Type:** Source Material      **Expires:** 04-MAY-10      **Lot Number :** 1013357  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** o2si  
**Description:** TRACE ICP ICSA SOLN A mg/L +/- 0.5% IN 5% HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

**Serial ID:** UI090610-03      **Opened:** 10-JUN-09      **Catalog Number :** 060074-06-01  
**Name:** ICPMS Tungsten - 10mg/L      **Received:** 10-JUN-09      **Lot Number :** 1016338  
**Type:** Source Material      **Expires:** 10-JUN-10      **Solvent :** 2% HNO3  
**Employee:** Paul Boyd  
**Supplier:** O2SI  
**Description:** ICPMS Tungsten standard SPIKE - 10mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

# Standard Logbook

**Serial ID:** UI090701-09      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #1      **Received:** 01-JUL-09      **Catalog Number :** 160044-09-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016477  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS CRDL Master Soln #1  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UI090701-10      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #2      **Received:** 01-JUL-09      **Catalog Number :** 160044-08-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016476  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS CRDL Soln #2  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

**Serial ID:** UI090701-40      **Opened:** 01-JUL-09      **Amount :** 500 mL  
**Name:** TRACE ICP Stock PQL St      **Received:** 30-JUN-09      **Catalog Number :** 160543-01-03  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016475  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3+TrHF  
**Supplier:** 02si  
**Description:** TRACE ICP Stock PQL Standard  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
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# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

**Serial ID:** UI090828-42      **Opened:** 16-SEP-09      **Amount :** 500 mL  
**Name:** TRACE ICP Na-1000SOUR      **Received:** 27-AUG-09      **Catalog Number :** 060011-02-03  
**Type:** Source Material      **Expires:** 16-SEP-10      **Lot Number :** 1017098  
**Employee:** Helen Camello      **Solvent :** 1%HNO3  
**Supplier:** 02SI  
**Description:** Sodium 1000 +/- 3 ug/mL in 1% HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

**Serial ID:** UI090925-40      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX38-500N  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909129  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1A 5%HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

# Standard Logbook

**Serial ID:** UI090925-41      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX39-500B  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909130  
**Employee:** Helen Camello      **Solvent :** 5%HNO3,TR.HF  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

**Serial ID:** UI090930-A      **Opened:** 30-SEP-09      **Catalog Number :** 160067-02  
**Name:** ICP-MS DOE Liquid SPIKE      **Received:** 28-SEP-09      **Lot Number :** 1017141  
**Type:** Source Material      **Expires:** 30-SEP-10  
**Employee:** Francena Armstrong      **Verified:** 21-NOV-08  
**Supplier:** O2Si  
**Description:** ICP-MS DOE liquid Spike Solution A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

# Standard Logbook

**Serial ID:** UI090930-B      **Opened:** 30-SEP-09      **Catalog Number :** 160067-02  
**Name:** ICP-MS DOE Liquid SPIKE      **Received:** 28-SEP-09      **Lot Number :** 1017141  
**Type:** Source Material      **Expires:** 30-SEP-10  
**Employee:** Francena Armstrong      **Verified:** 21-NOV-08  
**Supplier:** O2Si  
**Description:** ICP-MS DOE Liquid Spike Solution B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

**Serial ID:** UI091015-42      **Opened:** 28-OCT-09      **Amount :** 500 mL  
**Name:** SI 1000mg/L      **Received:** 15-OCT-09      **Catalog Number :** 060014-02-03  
**Type:** Source Material      **Expires:** 28-OCT-10      **Lot Number :** 1017581  
**Employee:** Helen Camello      **Solvent :** 0.3%H2O(NH4)2SiF6  
**Supplier:** o2si  
**Description:** Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI091102-40      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1A SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-1-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930215  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Std #1A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

# Standard Logbook

**Serial ID:** UI091102-41      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1B SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-2-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930216  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Standard #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

**Serial ID:** UI091102-42      **Opened:** 17-NOV-09      **Amount :** 200 mL  
**Name:** SILICON      **Received:** 02-NOV-09      **Catalog Number :** HP100050-4F  
**Type:** Source Material      **Expires:** 17-NOV-10      **Lot Number :** 0921924  
**Employee:** Helen Camello      **Solvent :** H2O/tr HF  
**Supplier:** ENVIRONMENTAL EXPRESS  
**Description:** SILICON 1000mg/L H2O/tr HF  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI091212-60      **Opened:** 12-DEC-09      **Amount :** .5 mL  
**Name:** ICPMS High Range Standard      **Received:** 12-DEC-09      **Catalog Number :** 160212-02-01  
**Type:** Source Material      **Expires:** 12-DEC-10      **Lot Number :** 1018064  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3 + Tr HF  
**Supplier:** O2SI  
**Description:** Linear Range Standard A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

# Standard Logbook

**Serial ID:** UI091212-61      **Opened:** 12-DEC-09      **Amount :** .5 mL  
**Name:** ICPMS High Range Standard      **Received:** 12-DEC-09      **Catalog Number :** 160212-02-01  
**Type:** Source Material      **Expires:** 12-DEC-10      **Lot Number :** 1018064  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3 + Tr HF  
**Supplier:** O2SI  
**Description:** Linear Range Standard B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

**Serial ID:** UI091217-06      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master A      **Received:** 17-DEC-09      **Catalog Number :** 160055-01  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018209  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** O2SI  
**Description:** ICPMS ICV/CCV SOLN A - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

**Serial ID:** UI091217-07      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master B      **Received:** 17-DEC-09      **Catalog Number :** 160054-02  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018210  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** O2SI  
**Description:** ICPMS ICV/CCV Soln B - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

# Standard Logbook

**Serial ID:** UI091217-08      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master C      **Received:** 17-DEC-09      **Catalog Number :** 160054-03  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018211  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV Soln C - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

**Serial ID:** UI091217-12      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master B      **Received:** 17-DEC-09      **Catalog Number :** 160033-02  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018212  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS ICSAB Master B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

**Serial ID:** UI091217-13      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master C      **Received:** 17-DEC-09      **Catalog Number :** 160033-03  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1016926  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS ICSAB Master C  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

# Standard Logbook

**Serial ID:** UI100126-11      **Opened:** 26-JAN-10      **Amount :** 1000 mL  
**Name:** ICP-MS ICSA Master A      **Received:** 26-JAN-10      **Catalog Number :** 160013-01-01L  
**Type:** Source Material      **Expires:** 26-JAN-11      **Lot Number :** 1018321  
**Employee:** Elizabeth Janssen      **Solvent :** 2% HNO3  
**Supplier:** 02SI  
**Description:** ICP-MS ICSA Master A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

**Serial ID:** UI100205-01      **Opened:** 05-FEB-10      **Lot Number :** 1018514  
**Name:** METALSPIKE-1      **Received:** 05-FEB-10  
**Type:** Source Material      **Expires:** 05-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** OS2I  
**Description:** Metals Spike Mix I  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

**Serial ID:** UI100205-06      **Opened:** 05-FEB-10      **Lot Number :** 1018515  
**Name:** METALSPIKE-2      **Received:** 05-FEB-10  
**Type:** Source Material      **Expires:** 05-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** OS2I  
**Description:** Metals Spike Mix II  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

**Serial ID:** UI100205-A      **Opened:** 05-FEB-10      **Catalog Number :** 160067-05  
**Name:** ICP-MS ALL OTHER SPIKE      **Received:** 05-FEB-10      **Lot Number :** 1018516  
**Type:** Source Material      **Expires:** 05-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** O2si  
**Description:** ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

**Serial ID:** UI100205-B      **Opened:** 05-FEB-10      **Catalog Number :** 160067-05  
**Name:** ICP-MS ALL OTHER SPIKE      **Received:** 05-FEB-10      **Lot Number :** 1018516  
**Type:** Source Material      **Expires:** 05-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** O2si  
**Description:** MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L



# Standard Logbook

**Serial ID:** UI100210-48      **Opened:** 11-FEB-10      **Amount :** 1000 mL  
**Name:** Trace ICP ICSA      **Received:** 10-FEB-10      **Catalog Number :** 160005-02  
**Type:** Source Material      **Expires:** 11-FEB-11      **Lot Number :** 1018807  
**Employee:** Helen Camello      **Solvent :** 3% HCl + 1% HNO3  
**Supplier:** o2si  
**Description:** Trace ICP Interferent Check Standard A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

**Serial ID:** UI100211-40      **Opened:** 11-FEB-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD-A      **Received:** 10-FEB-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 11-FEB-11      **Lot Number :** 1018409  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** 02SI  
**Description:** ICP HIGH RANGE STD SOLUTION A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

**Serial ID:** UI100211-41      **Opened:** 11-FEB-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD B      **Received:** 10-FEB-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 11-FEB-11      **Lot Number :** 1018409  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** 02SI  
**Description:** ICP HIGH RANGE STD SOLUTION B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

**Serial ID:** UMS090303-01      **Opened:** 03-MAR-09      **Amount :** 250 mL  
**Name:** ICPMSCalSPIKEB      **Received:** 03-MAR-09      **Catalog Number :** ZGEL-100-250  
**Type:** Source Material      **Expires:** 28-FEB-10      **Lot Number :** 14-81JB

**Employee:** Paul Boyd

**Supplier:** SPEX

**Description:** ICPMS Calibration Standard Solution B

**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UMS090303-02      **Opened:** 03-MAR-09      **Catalog Number :** ZGEL-102-250  
**Name:** ICPMSCalSPIKEA      **Received:** 03-MAR-09      **Lot Number :** 14-83JB  
**Type:** Source Material      **Expires:** 28-FEB-10

**Employee:** Paul Boyd

**Supplier:** SPEX

**Description:** ICPMS Calibration Standard Solution A

**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

**Serial ID:** UMS090303-03      **Opened:** 03-MAR-09      **Amount :** 250 ml  
**Name:** ICPMSCalSPIKEC      **Received:** 03-MAR-09      **Catalog Number :** ZGEL-101-250  
**Type:** Source Material      **Expires:** 28-FEB-10      **Lot Number :** 15-199JB

**Employee:** Paul Boyd

**Supplier:** SPEX

**Description:** ICPMS Calibration Standard Solution C

**Comments:** None

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

**Serial ID:** IHG100212-01      **Opened:** 12-FEB-10      **Instrument Id :** Mercury  
**Name:** MHGINTER1      **Received:** 12-FEB-10      **Pipet Id :** Minou1  
**Type:** Intermediate      **Expires:** 13-FEB-10      **Solvent :** 1mL HNO3 + TypeI H2O  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Intermediate 1st Source 200 ug/L  
**Comments:** Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** IHG100212-02      **Opened:** 12-FEB-10      **Pipet Id :** Minou1  
**Name:** MHGINTER2      **Received:** 12-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Intermediate      **Expires:** 13-FEB-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Intermediate 2nd Source 200 ug/L  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WHG100212-01a      **Opened:** 12-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL0.2CRA      **Received:** 12-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 19-FEB-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 0.2/CRA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

**Serial ID:** WHG100212-02      **Opened:** 12-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL0.5      **Received:** 12-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 19-FEB-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 0.5  
**Comments:** None

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

**Serial ID:** WHG100212-03      **Opened:** 12-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL2.0      **Received:** 12-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 19-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL

**Description:** Mercury Working 1st Source CAL 2.0

**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

**Serial ID:** WHG100212-04      **Opened:** 12-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL5.0CCV      **Received:** 12-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 19-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL

**Description:** Mercury Working 1st Source CAL 5.0/CCV

**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

**Serial ID:** WHG100212-05      **Opened:** 12-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL10.0      **Received:** 12-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 19-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL

**Description:** Mercury Working 1st Source CAL 10.0

**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

**Serial ID:** WHG100212-06      **Opened:** 12-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORK5.0ICV      **Received:** 12-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 19-FEB-10  
**Employee:** Tara Griffin  
**Supplier:** GEL

**Description:** Mercury Working 2nd Source 5.0/ICV

**Comments:** None

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100212-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

**Serial ID:** WHG100212-13      **Opened:** 12-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHG1QLCSMSSPIKE      **Received:** 12-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 19-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL

**Description:** Mercury working intermediate standard for LCS/MS

**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WI100212-42      **Opened:** 12-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 13-FEB-10      **Solvent :** 3%HCL and 1%HNO3 -1266496  
**Employee:** Helen Camello  
**Supplier:** GEL

**Description:** TRACE ICP 0.1 PPM CALIBRATION STD.

**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
WI100212-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100212-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100212-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100212-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100212-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100212-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

**Serial ID:** WI100212-43      **Opened:** 12-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 13-FEB-10      **Solvent :** 3%HCL and 1%HNO3 -1266496  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP 0.5/CCV CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

**Serial ID:** WI100212-44      **Opened:** 12-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 13-FEB-10      **Solvent :** 3%HCL and 1 %HNO3-1266496  
**Employee:** Helen Camello  
**Supplier:** o2si  
**Description:** Trace ICP Calibration Standard 1.0ppm  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L

## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

**Serial ID:** WI100212-45      **Opened:** 12-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 13-FEB-10      **Solvent :** 3%HCL and 1%HNO3 -1266496  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP S-10 CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

**Serial ID:** WI100212-46      **Opened:** 12-FEB-10      **Balance Id :** 216  
**Name:** ICP TRACE ICPV      **Received:** 25-SEP-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 13-FEB-10      **Solvent :** 3%HCL AND 1%HNO3-1266496  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** Initial Calibration Verification ICP Trace Metals  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

**Serial ID:** W1100212-47      **Opened:** 12-FEB-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 13-FEB-10      **Solvent :** 3%HCL &1%HNO3-1266496  
**Employee:** Helen Camello  
**Supplier:** 02si  
**Description:** PQL Working Standard  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

**Serial ID:** WMS100217-04      **Opened:** 17-FEB-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 17-FEB-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 18-FEB-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1269792  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l

## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100217-04A      **Opened:** 17-FEB-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 17-FEB-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 18-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1269792  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100217-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100217-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l

## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100217-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100217-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100217-04B      **Opened:** 17-FEB-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 17-FEB-10      **Balance Id :** 40245216  
**Type:** Working      **Expires:** 18-FEB-10      **Pipet Id :** 1758088  
**Employee:** Rose Jenkins      **Solvent :** 2%HNO3/1%HCl- 1269792  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

**Serial ID:** WMS100217-05      **Opened:** 17-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 17-FEB-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 18-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1269792  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

**Serial ID:** WMS100217-06      **Opened:** 17-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 17-FEB-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 18-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1269792  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

**Serial ID:** WMS100217-07      **Opened:** 17-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 17-FEB-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 18-FEB-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1269792  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100217-08      **Opened:** 17-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 17-FEB-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 18-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1269792  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L

## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100217-70      **Opened:** 17-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS LINEAR RANGE ST      **Received:** 17-FEB-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 18-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1269792  
**Employee:** Paul Boyd  
**Supplier:** 02SI  
**Description:** ICPMS LINEAR RANGE STANDARD  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

**Serial ID:** WMS100218-04      **Opened:** 18-FEB-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 18-FEB-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 19-FEB-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1269792  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100218-04A      **Opened:** 18-FEB-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 18-FEB-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 19-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1269792  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
WMS100217-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100217-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l

## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100217-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100217-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100218-05      **Opened:** 18-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 18-FEB-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 19-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1269792  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

**Serial ID:** WMS100218-06      **Opened:** 18-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 18-FEB-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 19-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1269792  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

**Serial ID:** WMS100218-07      **Opened:** 18-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 18-FEB-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 19-FEB-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1269792  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100218-08      **Opened:** 18-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 18-FEB-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 19-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1269792  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** 100202      **Opened:** 02-FEB-10      **Lot Number :** 200930201  
**Name:** I-HCL      **Received:** 02-FEB-10  
**Type:** Reagent/Solvent      **Expires:** 02-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** J.T. BAKER  
**Description:** HYDROCHLORIC ACID  
**Comments:** None

# Standard Logbook

Serial ID: 1100721TCLP      Opened: 16-APR-09      Lot Number : H02026 L  
Name: I-HNO3      Received: 02-APR-09  
Type: Reagent/Solvent      Expires: 02-APR-10  
Employee: Clifford Postell  
Supplier: BAKER  
Description: Nitric Acid CONC.  
Comments: None

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Serial ID: 1156689-A      Opened: 20-JUL-09      Lot Number : 41226920  
Name: B-KMnO4(VWR)-MER      Received: 20-JUL-09  
Type: Reagent/Solvent      Expires: 20-JUL-10  
Employee: Tara Griffin      Verified: 07-AUG-07  
Supplier: VWR  
Description: Potassium Permanganate  
Comments: None

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Serial ID: 1176183      Opened: 24-AUG-09      Lot Number : H20001  
Name: B-H2SO4-MER      Received: 24-AUG-09  
Type: Reagent/Solvent      Expires: 24-AUG-10  
Employee: Tara Griffin  
Supplier: Mallinckrodt  
Description: Sulfuric Acid, Concentrated  
Comments: None

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Serial ID: 1215906      Opened: 06-NOV-09      Lot Number : H44465  
Name: B-K2S2O8S-MER      Received: 06-NOV-09  
Type: Reagent/Solvent      Expires: 06-NOV-10  
Employee: Tara Griffin  
Supplier: J.T BAKER  
Description: Potassium Persulfate Concentrate  
Comments: None

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Serial ID: 1228372-A      Opened: 12-NOV-09      Lot Number : 49215936  
Name: B-NH2OH.HCl-MER      Received: 12-NOV-09  
Type: Reagent/Solvent      Expires: 12-NOV-10  
Employee: Tara Griffin  
Supplier: Fisher Scientific  
Description: Hydroxylamine Hydrochloride  
Comments: None

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# Standard Logbook

**Serial ID:** 1255532-C      **Opened:** 15-JAN-10      **Balance Id :** BAL-002  
**Name:** B-NaCl.NH2OH.HCl-MER      **Received:** 15-JAN-10  
**Type:** Reagent/Solvent      **Expires:** 15-JUL-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Hg reducing agent  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

**Serial ID:** 1257474-1      **Opened:** 20-JAN-10      **Instrument Id :** MERCURY  
**Name:** B-HNO3-MER      **Received:** 20-JAN-10      **Lot Number :** H20053  
**Type:** Reagent/Solvent      **Expires:** 20-JAN-11  
**Employee:** Tara Griffin  
**Supplier:** Mallinckrodt Chemicals  
**Description:** NITRIC ACID  
**Comments:** None

**Serial ID:** 1261483-C      **Opened:** 28-JAN-10      **Balance Id :** BAL-002  
**Name:** B-K2S2O8-MER      **Received:** 28-JAN-10  
**Type:** Reagent/Solvent      **Expires:** 28-JUL-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** 5% Potassium Persulfate  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

**Serial ID:** 1264396      **Opened:** 03-FEB-10      **Lot Number :** H51025 L  
**Name:** I-HNO3      **Received:** 02-FEB-10  
**Type:** Reagent/Solvent      **Expires:** 03-FEB-11  
**Employee:** Bryan Davis  
**Supplier:** BAKER  
**Description:** Nitric Acid CONC.  
**Comments:** None

**Serial ID:** 1264984-C      **Opened:** 04-FEB-10      **Balance Id :** BAL-002  
**Name:** B-KMnO4-MER      **Received:** 04-FEB-10  
**Type:** Reagent/Solvent      **Expires:** 20-JUL-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** 5% KMnO4 solution



# Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209      Opened: 04-FEB-10      Lot Number : J02039  
 Name: I-HCL      Received: 04-FEB-10      Preservative Id : 5 none  
 Type: Reagent/Solvent      Expires: 04-FEB-11  
 Employee: Bryan Davis  
 Supplier: J.T. BAKER  
 Description: HYDROCHLORIC ACID  
 Comments: None

Serial ID: 1266496      Opened: 08-FEB-10      Amount : 20 L  
 Name: B-ICP-RINSE SOLN      Received: 20-JAN-10      Lot Number : H04040+G34050  
 Type: Reagent/Solvent      Expires: 14-FEB-10      Solvent : 3%HCL+1%HNO3  
 Employee: Helen Camello  
 Supplier: GEL  
 Description: 3%HCL+1%HNO3 RINSE SOLN.  
 Comments: None

Serial ID: 1269792      Opened: 15-FEB-10      Solvent : Type I Water  
 Name: B-2%HNO3/1%HCl-ICPMS      Received: 15-FEB-10  
 Type: Reagent/Solvent      Expires: 22-FEB-10  
 Employee: Paul Boyd  
 Supplier: GEL  
 Description: 2%HNO3/1%HCl Solution (Type I Water)  
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

# **General Chemistry Analysis**

# Case Narrative

**General Chemistry Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1433**

**Method/Analysis Information**

**Product:** Cyanide, Total  
**Analytical Batch:** 947312 and 947315    **Method:** SW9012A Cyanide and Total  
**Prep Batch :** 947310 and 947314    **Method:** SSW846 9010B Prep

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

<b>Sample ID</b>	<b>Client ID</b>
245688001	RE15-10-7883
245688002	RE15-10-7884
245688003	RE15-10-7932
245688004	RE15-10-7931
245688005	RE15-10-7938
245688006	RE15-10-7933
245688007	RE15-10-7939
245688008	RE15-10-7936
245688009	RE15-10-7935
245688010	RE15-10-7934
245688011	RE15-10-7940
245688012	RE15-10-7937
245688013	RE15-10-8056
245688014	RE15-10-8057
1202029230	Method Blank (MB)
1202029231	245612007(RE46-10-11814) Sample Duplicate (DUP)
1202029232	245612008(RE46-10-11825) Sample Duplicate (DUP)
1202029233	245612007(RE46-10-11814) Matrix Spike (MS)
1202029234	245612008(RE46-10-11825) Matrix Spike (MS)
1202029235	245612007(RE46-10-11814) Matrix Spike Duplicate (MSD)
1202029236	245612008(RE46-10-11825) Matrix Spike Duplicate (MSD)
1202029237	Laboratory Control Sample (LCS)
1202029242	Method Blank (MB)
1202029243	245688011(RE15-10-7940) Sample Duplicate (DUP)
1202029244	245688012(RE15-10-7937) Sample Duplicate (DUP)
1202029245	245688011(RE15-10-7940) Matrix Spike (MS)
1202029246	245688012(RE15-10-7937) Matrix Spike (MS)
1202029247	245688011(RE15-10-7940) Matrix Spike Duplicate (MSD)
1202029248	245688012(RE15-10-7937) Matrix Spike Duplicate (MSD)
1202029249	Laboratory Control Sample (LCS)

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

#### **SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

#### **Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC, and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

#### **Calibration Information**

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

#### **Initial Calibration**

All initial calibration requirements have been met for this SDG.

#### **Continuing Calibration Blanks**

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

#### **Calibration Verification Information (CCV)**

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

#### **Y Intercept Rule**

The absolute value of the intercept is less than 3 times the MDL.

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MBs analyzed with this SDG met the acceptance criteria.

##### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

##### **Quality Control (QC) Designation**

The following samples were selected for QC analysis: 245612007 (RE46-10-11814), 245612008 (RE46-10-11825)- Batch 947312, 245688011 (RE15-10-7940) and 245688012 (RE15-10-7937)- Batch 947315.

##### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The spike recovery falls outside of the client specified acceptance limits due to matrix interference: 1202029246 (RE15-10-7937)- Batch 947315.

##### **Matrix Spike Duplicate (MSD) Recovery Statement**

The spike recovery duplicate falls outside of the client specified acceptance limits due to matrix interference: 1202029247 (RE15-10-7940)- Batch 947315.

##### **MS/MSD Relative Percent Difference (RPD) Statement**

The RPDs between the spike and spike duplicate met the acceptance limits.

**Duplicate Relative Percent Difference (RPD) Statement**

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202029231 (RE46-10-11814), 1202029232 (RE46-10-11825)- Batch 947312, 1202029243 (RE15-10-7940), 1202029244 (RE15-10-7937), 245688011 (RE15-10-7940) and 245688012 (RE15-10-7937)- Batch 947315.

**Technical Information**

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

**Holding Times**

All samples in this SDG met the specified holding time.

**Sample Preservation/Integrity**

All the samples from this sample group met the preservation and integrity requirements of the method.

**Sample Dilutions**

The following samples in this sample group were diluted due to high concentration: 1202029237 (LCS)- Batch 947312 and 1202029249 (LCS)- Batch 947315.

**Sample Re-analysis**

The following sample was re-analyzed due to instrument failure: 1202029242 (MB)- Batch 947315.

**Miscellaneous Information****Data Exception (DER) Documentation**

The following DERs were generated for this SDG: 788611 1202029246 (RE15-10-7937) and 1202029248 (RE15-10-7937)- Batch 947315.

**Additional Comments**

Additional comments were not required for this SDG.

**Electronic Packaging Comment**

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

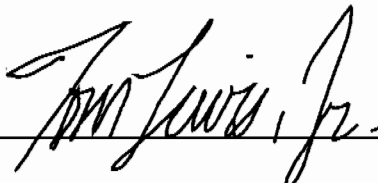
**Certification Statement**

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

**Review Validation:**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer:  Date: 19Feb10

# Sample Data Summary



## **GEL LABORATORIES LLC**

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### **Certificate of Analysis Report for**

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

Client SDG: 10-1433 GEL Work Order: 245688

**The Qualifiers in this report are defined as follows:**

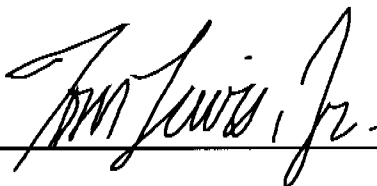
- \* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- \*\* Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

A handwritten signature in black ink, reading "Tom Lewis, Jr.", is written over a horizontal line. The signature is cursive and stylized.

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## Certificate of Analysis

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

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7931  
Sample ID: 245688004  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 17.1%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	73.2	269	ug/kg	1	AXC2	02/08/10	1430	947312	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7938  
Sample ID: 245688005  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 3.57%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	70.5	259	ug/kg	1	AXC2	02/08/10	1431	947312	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7933  
Sample ID: 245688006  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 20.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	73.8	271	ug/kg	1	AXC2	02/08/10	1432	947312	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	SW846 9012A		

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7939  
Sample ID: 245688007  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 23.8%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	81.2	298	ug/kg	1	AXC2	02/08/10	1433	947312	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7936  
Sample ID: 245688008  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 3.67%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	70.6	260	ug/kg	1	AXC2	02/08/10	1433	947312	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7935  
Sample ID: 245688009  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 23.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	82.4	303	ug/kg	1	AXC2	02/08/10	1434	947312	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7934  
Sample ID: 245688010  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 9.67%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	75.3	277	ug/kg	1	AXC2	02/08/10	1435	947312	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	



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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7940  
Sample ID: 245688011  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 4.85%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	63.8	235	ug/kg	1	AXC2	02/08/10	1343	947315	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7937  
Sample ID: 245688012  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 23.8%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	85.8	315	ug/kg	1	AXC2	02/08/10	1346	947315	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-8056  
Sample ID: 245688013  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 3.56%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	69.1	254	ug/kg	1	AXC2	02/08/10	1353	947315	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-8057  
Sample ID: 245688014  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 29.8%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	93.1	342	ug/kg	1	AXC2	02/08/10	1354	947315	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	SW846 9012A		

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## Certificate of Analysis

Company : Los Alamos National Laboratory  
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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANLER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7883  
Sample ID: 245688001  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 31.1%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	98.7	363	ug/kg	1	AXC2	02/08/10	1424	947312	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7884  
Sample ID: 245688002  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 5.82%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	68.1	250	ug/kg	1	AXC2	02/08/10	1424	947312	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7932  
Sample ID: 245688003  
Matrix: R  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client  
Moisture: 9.2%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	----	----	-------	----	---------	------	------	-------	--------

### Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	69.3	255	ug/kg	1	AXC2	02/08/10	1425	947312	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

# **Quality Control Summary**



# GEL LABORATORIES LLC

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## QC Summary

Report Date: February 19, 2010

Page 1 of 2

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

Contact: Ms. Joylene Valdez

Workorder: 245688

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Flow Injection Analysis</b>											
Batch	947312										
QC1202029231	245612007	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	02/08/10	14:07
QC1202029232	245612008	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			02/08/10	14:10
QC1202029237	LCS										
Cyanide, Total		67900			70000	ug/kg	103	(32%-157%)		02/08/10	14:05
QC1202029230	MB										
Cyanide, Total				U	250	ug/kg				02/08/10	14:00
QC1202029233	245612007	MS									
Cyanide, Total		5570	U	ND	5000	ug/kg	89.8	(26%-158%)		02/08/10	14:08
QC1202029234	245612008	MS									
Cyanide, Total		5090	U	ND	4400	ug/kg	86.4	(26%-158%)		02/08/10	14:11
QC1202029235	245612007	MSD									
Cyanide, Total		5170	U	ND	4410	ug/kg	12.7	85.3	(0%-30%)	02/08/10	14:08
QC1202029236	245612008	MSD									
Cyanide, Total		5380	U	ND	4560	ug/kg	3.74	84.8	(0%-30%)	02/08/10	14:12
Batch	947315										
QC1202029243	245688011	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	02/08/10	13:43
QC1202029244	245688012	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			02/08/10	13:47
QC1202029249	LCS										
Cyanide, Total		67900			66500	ug/kg	97.9	(32%-157%)		02/08/10	13:28
QC1202029242	MB										
Cyanide, Total				U	250	ug/kg				02/08/10	13:40
QC1202029245	245688011	MS									
Cyanide, Total		4530	U	ND	3920	ug/kg	86.6	(26%-158%)		02/08/10	13:44
QC1202029246	245688012	MS									
Cyanide, Total		6070	U	ND	4200	ug/kg	68.9	(26%-158%)		02/08/10	13:48
QC1202029247	245688011	MSD									
Cyanide, Total		5050	U	ND	3960	ug/kg	0.972	78.4	(0%-30%)	02/08/10	13:45
QC1202029248	245688012	MSD									
Cyanide, Total		5960	U	ND	4260	ug/kg	1.29	71.1	(0%-30%)	02/08/10	13:52

### Notes:

RER is calculated at the 95% confidence level (2-sigma).

The Qualifiers in this report are defined as follows:

\*\* Analyte is a surrogate compound

< Result is less than value reported

> Result is greater than value reported

A The TIC is a suspected aldol-condensation product

## GEL LABORATORIES LLC

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### QC Summary

Workorder: 245688

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.										
BD	Results are either below the MDC or tracer recovery is low										
C	Analyte has been confirmed by GC/MS analysis										
D	Results are reported from a diluted aliquot of the sample										
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range										
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria										
E	Organics--Concentration of the target analyte exceeds the instrument calibration range										
F	Estimated Value										
H	Analytical holding time was exceeded										
J	Value is estimated										
M	M if above MDC and less than LLD										
M	Matrix Related Failure										
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%										
R	Sample results are rejected										
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.										
UI	Gamma Spectroscopy--Uncertain identification										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Y	QC Samples were not spiked with this compound										
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
d	5-day BOD--The 2:1 depletion requirement was not met for this sample										
h	Preparation or preservation holding time was exceeded										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# **Instrument QC Data Summary**

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 19-FEB-2010 14:59

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1433

Flow Injection Analysis

Method: SW846 9012A

Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
<b>ICV</b>	<b>08-FEB-2010 13:22:34</b>	<b>OM_2-8-2010_13-14-40</b>	<b>151</b>	<b>150</b>	<b>101</b>	<b>(90%-110%)</b>	<b>Yes</b>
CCV	08-FEB-2010 13:36:51	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 13:49:17	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:01:41	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:14:12	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:26:41	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:39:11	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
<b>ICB</b>	<b>08-FEB-2010 13:24:24</b>	<b>OM_2-8-2010_13-14-40</b>	<b>-1.45</b>	<b>10</b>	<b>Yes</b>
CCB	08-FEB-2010 13:38:42	OM_2-8-2010_13-14-40	-1.4	10	Yes
CCB	08-FEB-2010 13:51:07	OM_2-8-2010_13-14-40	-1.92	10	Yes
CCB	08-FEB-2010 14:03:31	OM_2-8-2010_13-14-40	-1.86	10	Yes
CCB	08-FEB-2010 14:16:04	OM_2-8-2010_13-14-40	-1.95	10	Yes
CCB	08-FEB-2010 14:28:32	OM_2-8-2010_13-14-40	-1.47	10	Yes
CCB	08-FEB-2010 14:41:01	OM_2-8-2010_13-14-40	-1.57	10	Yes

# Cyanide, Total

# Prep LogBook

Analyst: AXSS  
Batch: 947314  
Lab SOP: GL-GC-E-067 REV# 13

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202029242		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50	25	g
LCS	1202029249		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.25 g	25 mL	100		mL
SAMPLE	245682001		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692		mL
SAMPLE	245682002		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692		mL
SAMPLE	245682003		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961		mL
SAMPLE	245682004		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.55 g	25 mL	45.45455		mL
SAMPLE	245682005		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692		mL
SAMPLE	245682006		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692		mL
SAMPLE	245682007		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961		mL
SAMPLE	245682008		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692		mL
SAMPLE	245682009		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.55 g	25 mL	45.45455		mL
SAMPLE	245682010		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.57 g	25 mL	43.85965		mL
SAMPLE	245688011		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.56 g	25 mL	44.64286		mL
DUP	1202029243	245688011	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963		mL
MS	1202029245	245688011	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.58 g	25 mL	43.10345		mL
MSD	1202029247	245688011	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692		mL
SAMPLE	245688012		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692		mL
DUP	1202029244	245688012	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50		mL
MS	1202029246	245688012	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963		mL
MSD	1202029248	245688012	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.55 g	25 mL	45.45455		mL
SAMPLE	245688013		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961		mL
SAMPLE	245688014		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692		mL
SAMPLE	245797001		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963		mL
SAMPLE	245797002		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961		mL
SAMPLE	245797003		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.53 g	25 mL	47.16981		mL
SAMPLE	245797004		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50		mL
SAMPLE	245797005		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963		mL
SAMPLE	245797006		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50		mL

## Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments:
0912111-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100204-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

# Prep LogBook

Analyst: AXSS Verified by: \_\_\_\_\_

Batch: 947310

Lab SOP: GL-GC-E-067 REV# 13

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202029230		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	25	g
LCS	1202029237		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.25 g	25 mL	100	.025	mL
SAMPLE	245612007		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.58 g	25 mL	43.10345	.025	mL
DUP	1202029231	245612007	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.54 g	25 mL	46.2963	.025	mL
MS	1202029233	245612007	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.51 g	25 mL	49.01961	.025	mL
MSD	1202029235	245612007	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.55 g	25 mL	45.45455	.025	mL
SAMPLE	245612008		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.56 g	25 mL	44.64286	.025	mL
DUP	1202029232	245612008	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	.025	mL
MS	1202029234	245612008	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.55 g	25 mL	45.45455	.025	mL
MSD	1202029236	245612008	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.52 g	25 mL	48.07692	.025	mL
SAMPLE	245612009		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	.025	mL
SAMPLE	245612010		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	.025	mL
SAMPLE	245612011		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	.025	mL
SAMPLE	245612012		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	.025	mL
SAMPLE	245612013		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.56 g	25 mL	44.64286	.025	mL
SAMPLE	245612014		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.58 g	25 mL	43.10345	.025	mL
SAMPLE	245612015		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.55 g	25 mL	45.45455	.025	mL
SAMPLE	245612016		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	.025	mL
SAMPLE	245688001		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	.025	mL
SAMPLE	245688002		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	.025	mL
SAMPLE	245688003		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.54 g	25 mL	46.2963	.025	mL
SAMPLE	245688004		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.56 g	25 mL	44.64286	.025	mL
SAMPLE	245688005		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	.025	mL
SAMPLE	245688006		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.58 g	25 mL	43.10345	.025	mL
SAMPLE	245688007		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.55 g	25 mL	45.45455	.025	mL
SAMPLE	245688008		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	.025	mL
SAMPLE	245688009		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.54 g	25 mL	46.2963	.025	mL
SAMPLE	245688010		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	.025	mL

Prep Data Logbook Version 1.1

GEL Laboratories LLC

Page#



## Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100204-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/8/2010 13:15:25	OM_2-8-2010_13-14-40
150 ppb		1	axc2	2/8/2010 13:16:17	OM_2-8-2010_13-14-40
100 ppb		1	axc2	2/8/2010 13:17:10	OM_2-8-2010_13-14-40
50 ppb		1	axc2	2/8/2010 13:18:03	OM_2-8-2010_13-14-40
10 ppb		1	axc2	2/8/2010 13:18:56	OM_2-8-2010_13-14-40
CRDL 5.0 ppb		1	axc2	2/8/2010 13:19:50	OM_2-8-2010_13-14-40
ICAL-00		1	axc2	2/8/2010 13:20:43	OM_2-8-2010_13-14-40
ICV		1	axc2	2/8/2010 13:22:34	OM_2-8-2010_13-14-40
ICB		1	axc2	2/8/2010 13:24:24	OM_2-8-2010_13-14-40
CRDL		1	axc2	2/8/2010 13:26:14	OM_2-8-2010_13-14-40
1202029242*	947315	1	axc2	2/8/2010 13:28:03	OM_2-8-2010_13-14-40
1202029249	947315	25	axc2	2/8/2010 13:28:57	OM_2-8-2010_13-14-40
245682001	947315	1	axc2	2/8/2010 13:29:50	OM_2-8-2010_13-14-40
245682002	947315	1	axc2	2/8/2010 13:30:43	OM_2-8-2010_13-14-40
245682003	947315	1	axc2	2/8/2010 13:31:36	OM_2-8-2010_13-14-40
245682004	947315	1	axc2	2/8/2010 13:32:29	OM_2-8-2010_13-14-40
245682005	947315	1	axc2	2/8/2010 13:33:21	OM_2-8-2010_13-14-40
245682006	947315	1	axc2	2/8/2010 13:34:14	OM_2-8-2010_13-14-40
245682007	947315	1	axc2	2/8/2010 13:35:07	OM_2-8-2010_13-14-40
245682008	947315	1	axc2	2/8/2010 13:35:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:36:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:38:42	OM_2-8-2010_13-14-40
1202029242	947315	1	axc2	2/8/2010 13:40:30	OM_2-8-2010_13-14-40
245682009	947315	1	axc2	2/8/2010 13:41:23	OM_2-8-2010_13-14-40
245682010	947315	1	axc2	2/8/2010 13:42:15	OM_2-8-2010_13-14-40
245688011	947315	1	axc2	2/8/2010 13:43:06	OM_2-8-2010_13-14-40
1202029243	947315	1	axc2	2/8/2010 13:43:58	OM_2-8-2010_13-14-40
1202029245	947315	1	axc2	2/8/2010 13:44:50	OM_2-8-2010_13-14-40
1202029247	947315	1	axc2	2/8/2010 13:45:44	OM_2-8-2010_13-14-40
245688012	947315	1	axc2	2/8/2010 13:46:37	OM_2-8-2010_13-14-40
1202029244	947315	1	axc2	2/8/2010 13:47:31	OM_2-8-2010_13-14-40
1202029246	947315	1	axc2	2/8/2010 13:48:24	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:49:17	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:51:07	OM_2-8-2010_13-14-40
1202029248	947315	1	axc2	2/8/2010 13:52:56	OM_2-8-2010_13-14-40
245688013	947315	1	axc2	2/8/2010 13:53:50	OM_2-8-2010_13-14-40
245688014	947315	1	axc2	2/8/2010 13:54:42	OM_2-8-2010_13-14-40
245797001	947315	1	axc2	2/8/2010 13:55:35	OM_2-8-2010_13-14-40
245797002	947315	1	axc2	2/8/2010 13:56:27	OM_2-8-2010_13-14-40
245797003	947315	1	axc2	2/8/2010 13:57:20	OM_2-8-2010_13-14-40
245797004	947315	1	axc2	2/8/2010 13:58:12	OM_2-8-2010_13-14-40
245797005	947315	1	axc2	2/8/2010 13:59:04	OM_2-8-2010_13-14-40
245797006	947315	1	axc2	2/8/2010 13:59:57	OM_2-8-2010_13-14-40
1202029230	947312	1	axc2	2/8/2010 14:00:48	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:01:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:03:31	OM_2-8-2010_13-14-40
1202029237	947312	25	axc2	2/8/2010 14:05:20	OM_2-8-2010_13-14-40
245612007	947312	1	axc2	2/8/2010 14:06:13	OM_2-8-2010_13-14-40
1202029231	947312	1	axc2	2/8/2010 14:07:07	OM_2-8-2010_13-14-40
1202029233	947312	1	axc2	2/8/2010 14:08:01	OM_2-8-2010_13-14-40
1202029235	947312	1	axc2	2/8/2010 14:08:54	OM_2-8-2010_13-14-40
245612008	947312	1	axc2	2/8/2010 14:09:48	OM_2-8-2010_13-14-40
1202029232	947312	1	axc2	2/8/2010 14:10:41	OM_2-8-2010_13-14-40
1202029234	947312	1	axc2	2/8/2010 14:11:33	OM_2-8-2010_13-14-40
1202029236	947312	1	axc2	2/8/2010 14:12:26	OM_2-8-2010_13-14-40
245612009	947312	1	axc2	2/8/2010 14:13:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:14:12	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:16:04	OM_2-8-2010_13-14-40

245612010	947312	1	axc2	2/8/2010	14:17:52	OM_2-8-2010_13-14-40
245612011	947312	1	axc2	2/8/2010	14:18:45	OM_2-8-2010_13-14-40
245612012	947312	1	axc2	2/8/2010	14:19:37	OM_2-8-2010_13-14-40
245612013	947312	1	axc2	2/8/2010	14:20:29	OM_2-8-2010_13-14-40
245612014	947312	1	axc2	2/8/2010	14:21:22	OM_2-8-2010_13-14-40
245612015	947312	1	axc2	2/8/2010	14:22:13	OM_2-8-2010_13-14-40
245612016	947312	1	axc2	2/8/2010	14:23:07	OM_2-8-2010_13-14-40
245688001	947312	1	axc2	2/8/2010	14:24:02	OM_2-8-2010_13-14-40
245688002	947312	1	axc2	2/8/2010	14:24:55	OM_2-8-2010_13-14-40
245688003	947312	1	axc2	2/8/2010	14:25:50	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:26:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:28:32	OM_2-8-2010_13-14-40
245688004	947312	1	axc2	2/8/2010	14:30:23	OM_2-8-2010_13-14-40
245688005	947312	1	axc2	2/8/2010	14:31:15	OM_2-8-2010_13-14-40
245688006	947312	1	axc2	2/8/2010	14:32:08	OM_2-8-2010_13-14-40
245688007	947312	1	axc2	2/8/2010	14:33:01	OM_2-8-2010_13-14-40
245688008	947312	1	axc2	2/8/2010	14:33:55	OM_2-8-2010_13-14-40
245688009	947312	1	axc2	2/8/2010	14:34:47	OM_2-8-2010_13-14-40
245688010	947312	1	axc2	2/8/2010	14:35:40	OM_2-8-2010_13-14-40
1202033006	948940	1	axc2	2/8/2010	14:36:34	OM_2-8-2010_13-14-40
1202033013	948940	1	axc2	2/8/2010	14:37:26	OM_2-8-2010_13-14-40
245926001	948940	1	axc2	2/8/2010	14:38:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:39:11	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:41:01	OM_2-8-2010_13-14-40
245926002	948940	1	axc2	2/8/2010	14:42:50	OM_2-8-2010_13-14-40
245926003	948940	1	axc2	2/8/2010	14:43:43	OM_2-8-2010_13-14-40
1202033008	948940	1	axc2	2/8/2010	14:44:35	OM_2-8-2010_13-14-40
1202033010	948940	1	axc2	2/8/2010	14:45:29	OM_2-8-2010_13-14-40
1202033012	948940	1	axc2	2/8/2010	14:46:24	OM_2-8-2010_13-14-40
245926004	948940	1	axc2	2/8/2010	14:47:19	OM_2-8-2010_13-14-40
245926005	948940	1	axc2	2/8/2010	14:48:12	OM_2-8-2010_13-14-40
245926006	948940	1	axc2	2/8/2010	14:49:06	OM_2-8-2010_13-14-40
245926007	948940	1	axc2	2/8/2010	14:50:01	OM_2-8-2010_13-14-40
245939001	948940	1	axc2	2/8/2010	14:50:54	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:51:47	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:53:37	OM_2-8-2010_13-14-40
245939002*	948940	1	axc2	2/8/2010	14:55:27	OM_2-8-2010_13-14-40
245953001*	948940	1	axc2	2/8/2010	14:56:21	OM_2-8-2010_13-14-40
245965001*	948940	1	axc2	2/8/2010	14:57:14	OM_2-8-2010_13-14-40
245975001	948940	1	axc2	2/8/2010	14:58:06	OM_2-8-2010_13-14-40
245981001	948940	1	axc2	2/8/2010	14:59:00	OM_2-8-2010_13-14-40
246000001	948940	1	axc2	2/8/2010	14:59:52	OM_2-8-2010_13-14-40
246004001	948940	1	axc2	2/8/2010	15:00:45	OM_2-8-2010_13-14-40
1202033007	948940	1	axc2	2/8/2010	15:01:38	OM_2-8-2010_13-14-40
1202033009	948940	1	axc2	2/8/2010	15:02:32	OM_2-8-2010_13-14-40
1202033011	948940	1	axc2	2/8/2010	15:03:27	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:04:19	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:06:09	OM_2-8-2010_13-14-40
245939002	948940	1	axc2	2/8/2010	15:07:59	OM_2-8-2010_13-14-40
245953001	948940	1	axc2	2/8/2010	15:08:53	OM_2-8-2010_13-14-40
245965001	948940	1	axc2	2/8/2010	15:09:46	OM_2-8-2010_13-14-40
246056001	948940	1	axc2	2/8/2010	15:10:41	OM_2-8-2010_13-14-40
246056002	948940	1	axc2	2/8/2010	15:11:35	OM_2-8-2010_13-14-40
246056003	948940	1	axc2	2/8/2010	15:12:29	OM_2-8-2010_13-14-40
246056004	948940	1	axc2	2/8/2010	15:13:23	OM_2-8-2010_13-14-40
246080001	948940	1	axc2	2/8/2010	15:14:17	OM_2-8-2010_13-14-40
1202029252	947318	1	axc2	2/8/2010	15:15:10	OM_2-8-2010_13-14-40
1202029259	947318	25	axc2	2/8/2010	15:16:03	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:16:55	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:18:45	OM_2-8-2010_13-14-40

245797007	947318	1	axc2	2/8/2010	15:20:34	OM_2-8-2010_13-14-40
1202029253	947318	1	axc2	2/8/2010	15:21:26	OM_2-8-2010_13-14-40
1202029255	947318	1	axc2	2/8/2010	15:22:20	OM_2-8-2010_13-14-40
1202029257	947318	1	axc2	2/8/2010	15:23:14	OM_2-8-2010_13-14-40
245797008	947318	1	axc2	2/8/2010	15:24:08	OM_2-8-2010_13-14-40
1202029254	947318	1	axc2	2/8/2010	15:25:02	OM_2-8-2010_13-14-40
1202029256	947318	1	axc2	2/8/2010	15:25:56	OM_2-8-2010_13-14-40
1202029258	947318	1	axc2	2/8/2010	15:26:50	OM_2-8-2010_13-14-40
245797009	947318	1	axc2	2/8/2010	15:27:43	OM_2-8-2010_13-14-40
245797010	947318	1	axc2	2/8/2010	15:28:36	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:29:29	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:31:18	OM_2-8-2010_13-14-40
245797011	947318	1	axc2	2/8/2010	15:33:08	OM_2-8-2010_13-14-40
245797012	947318	1	axc2	2/8/2010	15:34:00	OM_2-8-2010_13-14-40
245797013	947318	1	axc2	2/8/2010	15:34:53	OM_2-8-2010_13-14-40
245797014	947318	1	axc2	2/8/2010	15:35:46	OM_2-8-2010_13-14-40
245797015	947318	1	axc2	2/8/2010	15:36:38	OM_2-8-2010_13-14-40
245797016	947318	1	axc2	2/8/2010	15:37:31	OM_2-8-2010_13-14-40
245797017	947318	1	axc2	2/8/2010	15:38:23	OM_2-8-2010_13-14-40
245797018	947318	1	axc2	2/8/2010	15:39:17	OM_2-8-2010_13-14-40
245797019	947318	1	axc2	2/8/2010	15:40:11	OM_2-8-2010_13-14-40
245806001	947318	1	axc2	2/8/2010	15:41:06	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:41:58	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:43:48	OM_2-8-2010_13-14-40
245806002	947318	1	axc2	2/8/2010	15:45:38	OM_2-8-2010_13-14-40
245806003	947318	1	axc2	2/8/2010	15:46:33	OM_2-8-2010_13-14-40
245806004	947318	1	axc2	2/8/2010	15:47:26	OM_2-8-2010_13-14-40
245806005	947318	1	axc2	2/8/2010	15:48:19	OM_2-8-2010_13-14-40
245806006	947318	1	axc2	2/8/2010	15:49:13	OM_2-8-2010_13-14-40
245806007	947318	1	axc2	2/8/2010	15:50:06	OM_2-8-2010_13-14-40
1202034313	949504	1	axc2	2/8/2010	15:51:00	OM_2-8-2010_13-14-40
1202034315	949504	250	axc2	2/8/2010	15:51:53	OM_2-8-2010_13-14-40
246078001	949504	1	axc2	2/8/2010	15:52:47	OM_2-8-2010_13-14-40
1202034314	949504	1	axc2	2/8/2010	15:53:40	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:54:33	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:56:23	OM_2-8-2010_13-14-40
246078002	949504	1	axc2	2/8/2010	15:58:12	OM_2-8-2010_13-14-40
246078003	949504	1	axc2	2/8/2010	15:59:05	OM_2-8-2010_13-14-40
246078004	949504	1	axc2	2/8/2010	15:59:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	16:00:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	16:02:41	OM_2-8-2010_13-14-40

Author: axc2

Date : 2/8/2010

Original Run Filename: OM\_2-8-2010\_13-14-40.OMN created 2/8/2010 13:14:40  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_2-8-2010\_13-14-40.OMN last modified 2/8/2010 16:03:46  
 Current Run Author's Signature: [axc2]  
 Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M  
 Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1		Detection Time	ADF	MDF	Description
			TCYANIDE					
			Conc. (ug/L)	Area (Vs)				
WCN100208-01	1	S1	200	8.74	2/8/2010@13:15:25			200 ppb
WCN100208-02	1	S2	150	6.63	2/8/2010@13:16:17			150 ppb
WCN100208-03	1	S3	100	4.52	2/8/2010@13:17:10			100 ppb
WCN100208-04	1	S4	50.0	2.28	2/8/2010@13:18:03			50 ppb
WCN100208-05	1	S5	10.0	0.511	2/8/2010@13:18:56			10 ppb
WCN100208-06	1	S6	5.00	0.321	2/8/2010@13:19:50			CRDL 5.0 ppb
WCN100208-08	1	S7	0.00	0.00906	2/8/2010@13:20:43			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99989 > 0.99500					
Message			Pass					
Action			Continue					
WCN100208-07	1	S8	151	6.65	2/8/2010@13:22:34			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			0.6 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			0.6 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100208-08	1	S7	-1.45	0.0181	2/8/2010@13:24:24			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.45 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.45 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100208-06	1	S6	5.53	0.322	2/8/2010@13:26:14			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			5.53 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			5.53 > 2.50					
Message			CRDL Passed					
Action			Continue					
1202029242 947315 MB	1	1	441	19.3	2/8/2010@13:28:03			
1202029249 LCS	1	2	26.6	1.24	2/8/2010@13:28:57		25.00	
245682001	1	3	-0.713	0.0500	2/8/2010@13:29:50			
245682002	1	4	-0.651	0.0528	2/8/2010@13:30:43			
245682003	1	5	0.833	0.117	2/8/2010@13:31:36			
245682004	1	6	-1.86	-1.22e-4	2/8/2010@13:32:29			
245682005	1	7	-0.452	0.0614	2/8/2010@13:33:21			
245682006	1	8	-0.944	0.0400	2/8/2010@13:34:14			
245682007	1	9	-1.19	0.0293	2/8/2010@13:35:07			
245682008	1	10	6.00	0.343	2/8/2010@13:35:58			
WCN100208-03	1	S3	105	4.68	2/8/2010@13:36:51			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			5.4 < 10.0					

			Message	CCV Passed					
			Action	Continue					
			DQM Test: < - Percent Relative Difference						
			Result:	5.4 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100208-08	1	S7		-1.40	0.0203	2/8/2010@13:38:42			CCB
			Known Conc:	0.00					
			DQM Test: > + Concentration Limit						
			Result:	-1.40 > 5.00					
			Message	CCB Passed					
			Action	Continue					
			DQM Test: < - Concentration Limit						
			Result:	-1.40 > -5.00					
			Message	CCB Passed					
			Action	Continue					
1202029242 947315 MB	1	1		-1.06	0.0348	2/8/2010@13:40:30			
245682009	1	11		-0.822	0.0453	2/8/2010@13:41:23			
245682010	1	12		1.86	0.162	2/8/2010@13:42:15			
245688011	1	13		-0.777	0.0473	2/8/2010@13:43:06			
1202029243 DUP	1	14		-2.01	-0.00640	2/8/2010@13:43:58			
1202029245 MS	1	15		86.6	3.85	2/8/2010@13:44:50			
1202029247 MSD	1	16		78.4	3.50	2/8/2010@13:45:44			
245688012	1	17		0.261	0.0925	2/8/2010@13:46:37			
1202029244 DUP	1	18		0.738	0.113	2/8/2010@13:47:31			
1202029246 MS	1	19		69.2	3.10	2/8/2010@13:48:24			
WCN100208-03	1	S3		105	4.67	2/8/2010@13:49:17			CCV
			Known Conc:	100					
			DQM Test: > + Percent Relative Difference						
			Result:	5.2 < 10.0					
			Message	CCV Passed					
			Action	Continue					
			DQM Test: < - Percent Relative Difference						
			Result:	5.2 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100208-08	1	S7		-1.92	-0.00263	2/8/2010@13:51:07			CCB
			Known Conc:	0.00					
			DQM Test: > + Concentration Limit						
			Result:	-1.92 < 5.00					
			Message	CCB Passed					
			Action	Continue					
			DQM Test: < - Concentration Limit						
			Result:	-1.92 > -5.00					
			Message	CCB Passed					
			Action	Continue					
1202029248 MSD	1	20		71.4	3.19	2/8/2010@13:52:56			
245688013	1	21		-1.01	0.0373	2/8/2010@13:53:50			
245688014	1	22		0.338	0.0958	2/8/2010@13:54:42			
245797001	1	23		-0.979	0.0385	2/8/2010@13:55:35			
245797002	1	24		-0.863	0.0435	2/8/2010@13:56:27			
245797003	1	25		-0.309	0.0676	2/8/2010@13:57:20			
245797004	1	26		0.938	0.122	2/8/2010@13:58:12			
245797005	1	27		2.23	0.178	2/8/2010@13:59:04			
245797006	1	28		-0.105	0.0766	2/8/2010@13:59:57			
1202029230 947312 MB	1	29		-1.23	0.0277	2/8/2010@14:00:48			
WCN100208-03	1	S3		105	4.66	2/8/2010@14:01:41			CCV
			Known Conc:	100					
			DQM Test: > + Percent Relative Difference						
			Result:	5.1 < 10.0					
			Message	CCV Passed					
			Action	Continue					
			DQM Test: < - Percent Relative Difference						
			Result:	5.1 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100208-08	1	S7		-1.86	0.00	2/8/2010@14:03:31			CCB
			Known Conc:	0.00					

DQM Test: > + Concentration Limit						
Result:		-1.86 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.86 > -5.00				
Message		CCB Passed				
Action		Continue				
1202029237  LCS	1	30	28.0	1.30	2/8/2010@14:05:20	25.00
245612007	1	31	-0.913	0.0414	2/8/2010@14:06:13	
1202029231  DUP	1	32	-1.27	0.0256	2/8/2010@14:07:07	
1202029233  MS	1	33	89.8	3.99	2/8/2010@14:08:01	
1202029235  MSD	1	34	85.3	3.80	2/8/2010@14:08:54	
245612008	1	35	-0.535	0.0578	2/8/2010@14:09:48	
1202029232  DUP	1	36	-1.07	0.0347	2/8/2010@14:10:41	
1202029234  MS	1	37	86.4	3.85	2/8/2010@14:11:33	
1202029236  MSD	1	38	84.8	3.78	2/8/2010@14:12:26	
245612009	1	39	-0.656	0.0526	2/8/2010@14:13:19	
WCN100208-03	1	S3	105	4.65	2/8/2010@14:14:12	CCV
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		4.9 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		4.9 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100208-08	1	S7	-1.95	-0.00373	2/8/2010@14:16:04	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.95 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.95 > -5.00				
Message		CCB Passed				
Action		Continue				
245612010	1	40	-0.280	0.0689	2/8/2010@14:17:52	
245612011	1	41	-1.09	0.0336	2/8/2010@14:18:45	
245612012	1	42	-1.19	0.0295	2/8/2010@14:19:37	
245612013	1	43	1.77	0.158	2/8/2010@14:20:29	
245612014	1	44	-0.868	0.0433	2/8/2010@14:21:22	
245612015	1	45	-0.814	0.0457	2/8/2010@14:22:13	
245612016	1	46	-1.07	0.0344	2/8/2010@14:23:07	
245688001	1	47	0.570	0.106	2/8/2010@14:24:02	
245688002	1	48	-0.480	0.0602	2/8/2010@14:24:55	
245688003	1	49	-0.404	0.0635	2/8/2010@14:25:50	
WCN100208-03	1	S3	105	4.64	2/8/2010@14:26:41	CCV
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		4.6 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		4.6 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100208-08	1	S7	-1.47	0.0172	2/8/2010@14:28:32	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.47 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.47 > -5.00				
Message		CCB Passed				
Action		Continue				

245688004	1	50	-0.636	0.0534	2/8/2010@14:30:23		
245688005	1	51	-0.336	0.0665	2/8/2010@14:31:15		
245688006	1	52	1.16	0.131	2/8/2010@14:32:08		
245688007	1	53	-0.543	0.0575	2/8/2010@14:33:01		
245688008	1	54	-1.27	0.0259	2/8/2010@14:33:55		
245688009	1	55	-0.570	0.0563	2/8/2010@14:34:47		
245688010	1	56	-0.384	0.0644	2/8/2010@14:35:40		
1202033006 948940 MB	1	85	-1.45	0.0179	2/8/2010@14:36:34		
1202033013 LCS	1	86	51.4	2.32	2/8/2010@14:37:26		
245926001	1	87	14.3	0.704	2/8/2010@14:38:19		
WCN100208-03	1	S3	105	4.67	2/8/2010@14:39:11		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			5.4 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			5.4 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100208-08	1	S7	-1.57	0.0127	2/8/2010@14:41:01		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.57 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.57 > -5.00				
Message			CCB Passed				
Action			Continue				
245926002	1	88	13.4	0.665	2/8/2010@14:42:50		
245926003	1	89	1.37	0.141	2/8/2010@14:43:43		
1202033008 DUP	1	90	-1.19	0.0293	2/8/2010@14:44:35		
1202033010 MS	1	91	93.6	4.16	2/8/2010@14:45:29		
1202033012 MSD	1	92	94.0	4.18	2/8/2010@14:46:24		
245926004	1	93	-1.04	0.0356	2/8/2010@14:47:19		
245926005	1	94	-1.86	-1.28e-4	2/8/2010@14:48:12		
245926006	1	95	-1.99	-0.00557	2/8/2010@14:49:06		
245926007	1	96	-1.18	0.0298	2/8/2010@14:50:01		
245939001	1	97	-1.20	0.0290	2/8/2010@14:50:54		
WCN100208-03	1	S3	105	4.66	2/8/2010@14:51:47		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			5.0 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			5.0 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100208-08	1	S7	-1.83	0.00132	2/8/2010@14:53:37		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.83 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.83 > -5.00				
Message			CCB Passed				
Action			Continue				
245939002	1	98	81.1	3.62	2/8/2010@14:55:27		
245953001	1	99	-11.0	-0.399	2/8/2010@14:56:21		
245965001	1	100	257	11.3	2/8/2010@14:57:14		
245975001	1	101	-1.84	9.46e-4	2/8/2010@14:58:06		
245981001	1	102	-1.72	0.00598	2/8/2010@14:59:00		
246000001	1	103	-1.86	2.83e-4	2/8/2010@14:59:52		
246004001	1	104	-2.03	-0.00731	2/8/2010@15:00:45		
1202033007 DUP	1	105	-1.87	-2.30e-4	2/8/2010@15:01:38		



1202033009	MS	1	106	96.2	4.27	2/8/2010@15:02:32		
1202033011	MSD	1	107	94.3	4.19	2/8/2010@15:03:27		
WCN100208-03		1	S3	104	4.63	2/8/2010@15:04:19		CCV
			Known Conc:	100				
DQM Test: > + Percent Relative Difference								
			Result:	4.5 < 10.0				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	4.5 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100208-08		1	S7	-1.82	0.00202	2/8/2010@15:06:09		CCB
			Known Conc:	0.00				
DQM Test: > + Concentration Limit								
			Result:	-1.82 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-1.82 > -5.00				
			Message	CCB Passed				
			Action	Continue				
245939002		1	98	-1.86	1.33e-4	2/8/2010@15:07:59		
245953001		1	99	-1.90	-0.00162	2/8/2010@15:08:53		
245965001		1	100	-1.86	-1.03e-4	2/8/2010@15:09:46		
246056001		1	108	-1.29	0.0251	2/8/2010@15:10:41		
246056002		1	109	-2.00	-0.00595	2/8/2010@15:11:35		
246056003		1	110	-1.42	0.0194	2/8/2010@15:12:29		
246056004		1	111	-2.00	-0.00588	2/8/2010@15:13:23		
246080001		1	112	-1.45	0.0179	2/8/2010@15:14:17		
1202029252	947318 MB	1	57	-1.86	-1.18e-4	2/8/2010@15:15:10		
1202029259	LCS	1	58	29.0	1.35	2/8/2010@15:16:03	25.00	
WCN100208-03		1	S3	104	4.62	2/8/2010@15:16:55		CCV
			Known Conc:	100				
DQM Test: > + Percent Relative Difference								
			Result:	4.1 < 10.0				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	4.1 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100208-08		1	S7	-1.49	0.0161	2/8/2010@15:18:45		CCB
			Known Conc:	0.00				
DQM Test: > + Concentration Limit								
			Result:	-1.49 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-1.49 > -5.00				
			Message	CCB Passed				
			Action	Continue				
245797007		1	59	-0.787	0.0468	2/8/2010@15:20:34		
1202029253	DUP	1	60	-0.616	0.0543	2/8/2010@15:21:26		
1202029255	MS	1	61	83.5	3.72	2/8/2010@15:22:20		
1202029257	MSD	1	62	84.4	3.76	2/8/2010@15:23:14		
245797008		1	63	3.82	0.248	2/8/2010@15:24:08		
1202029254	DUP	1	64	1.23	0.135	2/8/2010@15:25:02		
1202029256	MS	1	65	89.1	3.96	2/8/2010@15:25:56		
1202029258	MSD	1	66	78.7	3.51	2/8/2010@15:26:50		
245797009		1	67	-0.647	0.0529	2/8/2010@15:27:43		
245797010		1	68	-0.409	0.0633	2/8/2010@15:28:36		
WCN100208-03		1	S3	105	4.66	2/8/2010@15:29:29		CCV
			Known Conc:	100				
DQM Test: > + Percent Relative Difference								
			Result:	5.1 < 10.0				
			Message	CCV Passed				
			Action	Continue				

DQM Test: < - Percent Relative Difference						
Result:		5.1 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100208-08	1	S7	-1.86	2.47e-4	2/8/2010@15:31:18	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.86 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.86 > -5.00				
Message		CCB Passed				
Action		Continue				
245797011	1	69	1.59	0.150	2/8/2010@15:33:08	
245797012	1	70	-0.296	0.0682	2/8/2010@15:34:00	
245797013	1	71	-0.166	0.0739	2/8/2010@15:34:53	
245797014	1	72	5.34	0.314	2/8/2010@15:35:46	
245797015	1	73	0.400	0.0985	2/8/2010@15:36:38	
245797016	1	74	0.789	0.115	2/8/2010@15:37:31	
245797017	1	75	0.157	0.0880	2/8/2010@15:38:23	
245797018	1	76	3.07	0.215	2/8/2010@15:39:17	
245797019	1	77	-0.779	0.0472	2/8/2010@15:40:11	
245806001	1	78	-1.11	0.0326	2/8/2010@15:41:06	
WCN100208-03	1	S3	105	4.65	2/8/2010@15:41:58	CCV
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		4.9 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		4.9 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100208-08	1	S7	-1.82	0.00186	2/8/2010@15:43:48	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.82 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.82 > -5.00				
Message		CCB Passed				
Action		Continue				
245806002	1	79	0.0705	0.0842	2/8/2010@15:45:38	
245806003	1	80	-0.264	0.0696	2/8/2010@15:46:33	
245806004	1	81	-0.767	0.0477	2/8/2010@15:47:26	
245806005	1	82	-0.805	0.0461	2/8/2010@15:48:19	
245806006	1	83	-0.580	0.0559	2/8/2010@15:49:13	
245806007	1	84	0.973	0.124	2/8/2010@15:50:06	
1202034313 949504 MB	1	113	-1.24	0.0270	2/8/2010@15:51:00	
1202034315 LCS	1	114	107	4.74	2/8/2010@15:51:53	250.00
246078001	1	115	-1.01	0.0370	2/8/2010@15:52:47	
1202034314 DUP	1	116	-1.86	1.40e-4	2/8/2010@15:53:40	
WCN100208-03	1	S3	105	4.67	2/8/2010@15:54:33	CCV
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		5.3 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		5.3 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100208-08	1	S7	-1.93	-0.00287	2/8/2010@15:56:23	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.93 < 5.00				

		Message		CCB Passed					
		Action		Continue					
DQM Test: < - Concentration Limit									
		Result:		-1.93 > -5.00					
		Message		CCB Passed					
		Action		Continue					
246078002	1	117		-0.783	0.0470	2/8/2010@15:58:12			
246078003	1	118		-1.88	-6.47e-4	2/8/2010@15:59:05			
246078004	1	119		17.8	0.856	2/8/2010@15:59:58			
WCN100208-03	1	S3		105	4.64	2/8/2010@16:00:51			CCV
		Known Conc:		100					
DQM Test: > + Percent Relative Difference									
		Result:		4.6 < 10.0					
		Message		CCV Passed					
		Action		Continue					
DQM Test: < - Percent Relative Difference									
		Result:		4.6 < 10.0					
		Message		CCV Passed					
		Action		Continue					
WCN100208-08	1	S7		-1.52	0.0147	2/8/2010@16:02:41			CCB
		Known Conc:		0.00					
DQM Test: > + Concentration Limit									
		Result:		-1.52 < 5.00					
		Message		CCB Passed					
		Action		Continue					
DQM Test: < - Concentration Limit									
		Result:		-1.52 > -5.00					
		Message		CCB Passed					
		Action		Continue					

Analyte Properties Table for OM\_2-8-2010\_13-14-40.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Calibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

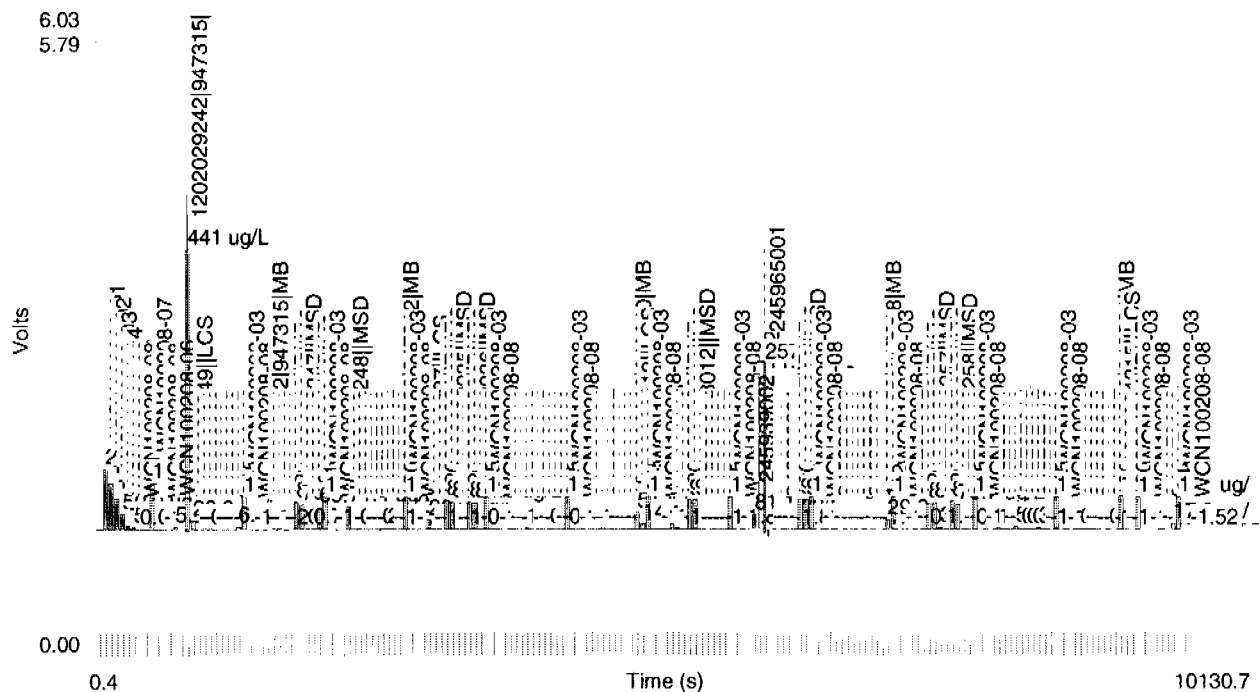
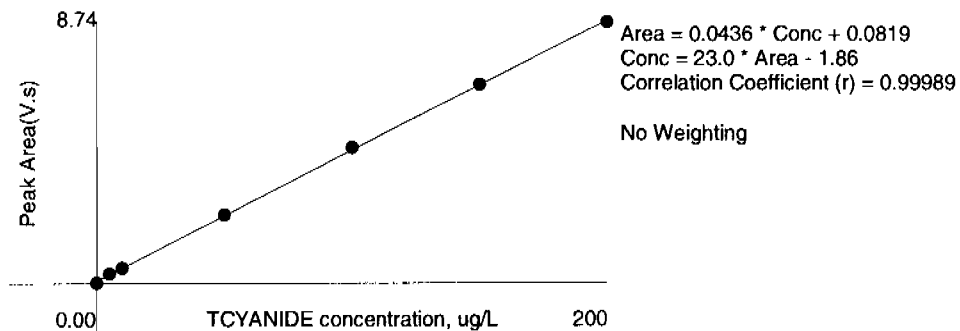


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.74	0.574	0.7	2/8/2010	13:16:28
2	150	1	6.63	0.438	-0.3	2/8/2010	13:17:20
3	100	1	4.52	0.298	-1.8	2/8/2010	13:18:12
4	50.0	1	2.28	0.149	-0.9	2/8/2010	13:19:05
5	10.0	1	0.511	0.0326	1.3	2/8/2010	13:19:59
6	5.00	1	0.321	0.0198	-7.0	2/8/2010	13:20:52
7	0.00	1	0.00906	0.00212		2/8/2010	13:21:47

Figure 1: TCYANIDE



# Miscellaneous

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 09-FEB-10	<b>Division:</b>	<b>Quality Criteria:</b>	<b>Type:</b>
<b>Instrument Type:</b>	<b>Test / Method:</b> SW846 9012A	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 947315	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG):</b> 245682(10-1450-1),245688(10-1433),245797(10-1471) <b>Application Issues:</b> Failed Recovery for MS/PS Failed Recovery for MSD/PSD			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<b>Exception Description:</b>  1. Failed Recovery for MS/MSD QC 1202029246MS 1202029248MSD		1. The matrix spike falls outside of the client specified acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD (soil sample).	

**Originator's Name:**

Ashley Earl      09-FEB-10

**Data Validator/Group Leader:**

Elzbieta Szulc      19-FEB-10

# **General Chemistry Analysis**

# Case Narrative



**General Chemistry Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1433-1**

**Method/Analysis Information**

<b>Product:</b>	<b>Cyanide, Total</b>		
<b>Analytical Batch:</b>	947324	<b>Method:</b>	SW9012A Cyanide and Total
<b>Prep Batch :</b>	947322	<b>Method:</b>	SSW846 9010B Prep

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

<b>Sample ID</b>	<b>Client ID</b>
245690001	RE15-10-8080
245690002	RE15-10-8079
1202029270	Method Blank (MB)
1202029271	245619001(GW51-10-11855) Sample Duplicate (DUP)
1202029272	245605002(CAMO-10-9315) Sample Duplicate (DUP)
1202029273	245676001(CAWR-10-11786) Sample Duplicate (DUP)
1202029274	245619001(GW51-10-11855) Matrix Spike (MS)
1202029275	245605002(CAMO-10-9315) Matrix Spike (MS)
1202029276	245676001(CAWR-10-11786) Matrix Spike (MS)
1202029277	245619001(GW51-10-11855) Matrix Spike Duplicate (MSD)
1202029278	245605002(CAMO-10-9315) Matrix Spike Duplicate (MSD)
1202029279	245676001(CAWR-10-11786) Matrix Spike Duplicate (MSD)
1202029280	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

**Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

**Calibration Information**

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

**Initial Calibration**

All initial calibration requirements have been met for this SDG.

**Continuing Calibration Blanks**

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

**Calibration Verification Information (CCV)**

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

**Y Intercept Rule**

The absolute value of the intercept is less than 3 times the MDL.

**Quality Control (QC) Information****Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recovery met the acceptance limits.

**Quality Control (QC) Designation**

The following samples were selected for QC analysis: 245605002 (CAMO-10-9315), 245619001 (GW51-10-11855) and 245676001 (CAWR-10-11786).

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The MS/PS recoveries for this sample set were within the required acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recoveries for this sample set were within the required acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**

The RPDs between the spike and spike duplicate met the acceptance limits.

**Duplicate Relative Percent Difference (RPD) Statement**

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202029271 (GW51-10-11855).

**Technical Information**

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

**Holding Times**

All samples in this SDG met the specified holding time.

**Sample Preservation/Integrity**

All the samples from this sample group met the preservation and integrity requirements of the method.

**Sample Dilutions**

The samples in this SDG did not require dilutions.

**Sample Re-analysis**

The following sample was re-analyzed due to instrument failure: 245690001 (RE15-10-8080).

**Miscellaneous Information**

**Data Exception (DER) Documentation**

A DER was not required for this SDG.

**Additional Comments**

Additional comments were not required for this SDG.

**Electronic Packaging Comment**

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

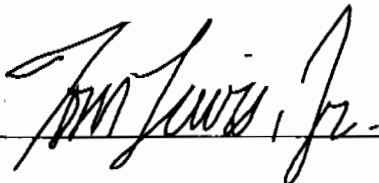
**Certification Statement**

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

**Review Validation:**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer:  Date: 19Feb10

# Sample Data Summary

## GEL LABORATORIES LLC

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

### Certificate of Analysis Report for

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

Client SDG: 10-1433-1 GEL Work Order: 245690

**The Qualifiers in this report are defined as follows:**

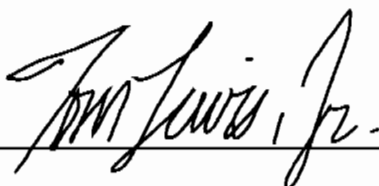
- \* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- \*\* Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

A handwritten signature in black ink, appearing to read "Tom Lewis, Jr.", is written over a horizontal line.

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: February 9, 2010

Client SDG: 10-1433-1

Client Sample ID: RE15-10-8080  
Sample ID: 245690001  
Matrix: W  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "As Received"</i>											
Cyanide, Total	J	2.79	1.66	5.00	ug/L	1	AXC2	02/05/10	1112	947324	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: February 9, 2010

Client SDG: 10-1433-1

Client Sample ID: RE15-10-8079  
Sample ID: 245690002  
Matrix: W  
Collect Date: 25-JAN-10 12:00  
Receive Date: 28-JAN-10  
Collector: Client

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "As Received"</i>											
Cyanide, Total	J	2.65	1.66	5.00	ug/L	1	AXC2	02/05/10	1104	947324	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	



# **Quality Control Summary**

# GEL LABORATORIES LLC

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

## QC Summary

Report Date: February 9, 2010

Page 1 of 2

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

Contact: Ms. Joylene Valdez

Workorder: 245690

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Flow Injection Analysis</b>											
Batch	947324										
QC1202029271	245619001	DUP									
Cyanide, Total	J	2.69	J	3.37	ug/L	22.4	^	(+/-5.00)	AXC2	02/05/10	10:48
QC1202029272	245605002	DUP									
Cyanide, Total	J	3.11	J	2.62	ug/L	17.1	^	(+/-5.00)		02/05/10	10:40
QC1202029273	245676001	DUP									
Cyanide, Total	J	3.12	J	2.85	ug/L	9.05	^	(+/-5.00)		02/05/10	10:53
QC1202029280	LCS										
Cyanide, Total	50.0			46.7	ug/L			93.4	(90%-110%)	02/05/10	10:37
QC1202029270	MB										
Cyanide, Total			J	2.49	ug/L					02/05/10	10:36
QC1202029274	245619001	MS									
Cyanide, Total	100	J	2.69	102	ug/L			99.3	(60%-144%)	02/05/10	10:48
QC1202029275	245605002	MS									
Cyanide, Total	100	J	3.11	102	ug/L			98.9	(60%-144%)	02/05/10	10:40
QC1202029276	245676001	MS									
Cyanide, Total	100	J	3.12	101	ug/L			97.9	(60%-144%)	02/05/10	10:54
QC1202029277	245619001	MSD									
Cyanide, Total	100	J	2.69	91.7	ug/L	10.6		89	(0%-20%)	02/05/10	10:49
QC1202029278	245605002	MSD									
Cyanide, Total	100	J	3.11	101	ug/L	0.985		97.9	(0%-20%)	02/05/10	10:41
QC1202029279	245676001	MSD									
Cyanide, Total	100	J	3.12	99.3	ug/L	1.70		96.2	(0%-20%)	02/05/10	10:55

### Notes:

RER is calculated at the 95% confidence level (2-sigma).

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded

## GEL LABORATORIES LLC

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

### QC Summary

Workorder: 245690

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Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
J	Value is estimated										
M	Matrix Related Failure										
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%										
R	Sample results are rejected										
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Y	QC Samples were not spiked with this compound										
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
d	5-day BOD--The 2:1 depletion requirement was not met for this sample										
h	Preparation or preservation holding time was exceeded										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# **Instrument QC Data Summary**

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 09-FEB-2010 14:34

**GEL Laboratories LLC**

**Contract: LANL01004**

**SDG #: 10-1433-1**

Flow Injection Analysis

Method: SW846 9012A

Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
<b>ICV</b>	<b>05-FEB-2010 10:04:21</b>	<b>OM_2-5-2010_09-56-27</b>	<b>137</b>	<b>150</b>	<b>91</b>	<b>(90%-110%)</b>	<b>Yes</b>
CCV	05-FEB-2010 10:31:03	OM_2-5-2010_09-56-27	96.7	100	97	(90%-110%)	Yes
CCV	05-FEB-2010 10:43:30	OM_2-5-2010_09-56-27	96.8	100	97	(90%-110%)	Yes
CCV	05-FEB-2010 10:55:59	OM_2-5-2010_09-56-27	96.2	100	96	(90%-110%)	Yes
CCV	05-FEB-2010 11:08:28	OM_2-5-2010_09-56-27	95.3	100	95	(90%-110%)	Yes
CCV	05-FEB-2010 11:20:57	OM_2-5-2010_09-56-27	95.7	100	96	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
<b>ICB</b>	<b>05-FEB-2010 10:06:11</b>	<b>OM_2-5-2010_09-56-27</b>	<b>0.293</b>	<b>10</b>	<b>Yes</b>
CCB	05-FEB-2010 10:32:54	OM_2-5-2010_09-56-27	0.125	10	Yes
CCB	05-FEB-2010 10:45:20	OM_2-5-2010_09-56-27	0.121	10	Yes
CCB	05-FEB-2010 10:57:50	OM_2-5-2010_09-56-27	1.57	10	Yes
CCB	05-FEB-2010 11:10:18	OM_2-5-2010_09-56-27	1.88	10	Yes
CCB	05-FEB-2010 11:22:48	OM_2-5-2010_09-56-27	1.88	10	Yes

# Cyanide, Total

# Prep Logbook

## Cyanide Sample Distillation

**Batch ID:** 947322.0  
**Analyst:** Alan Stanley  
**Method:** SW846 9010B Prep EPA 335.3 EPA 335.4  
**Lab SOP:** GL-GC-E-067 REV# 13  
**Instrument:** Sartorius Balance B-007

Verified by:

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check	Serial Number	Spike Amount	Spike Units
1202029270 MB	03-FEB-2010 15:24:00	Water	25	25	1	>12	URF1184831-02	.0125	mL
1202029280 LCS	03-FEB-2010 15:24:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV		
245427008	03-FEB-2010 15:24:00	Water	25	25	1	>12	URF1184831-02	.025	mL
245605002	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV		
1202029272 DUP (245605002)	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12	URF1184831-02	.025	mL
1202029275 MS (245605002)	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV		
1202029278 MSD (245605002)	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12	URF1184831-02	.025	mL
245619001	03-FEB-2010 15:24:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV		
1202029271 DUP (245619001)	03-FEB-2010 15:24:00	Water	25	25	1	>12	URF1184831-02	.025	mL
1202029274 MS (245619001)	03-FEB-2010 15:24:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV		
1202029277 MSD (245619001)	03-FEB-2010 15:24:00	Water	25	25	1	>12	URF1184831-02	.025	mL
245673004	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV		
245673005	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV		
245676001	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV		
1202029273 DUP (245676001)	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12	URF1184831-02	.025	mL
1202029276 MS (245676001)	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV		

Analytical Logbook version 1 11-04-2002

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## Prep Logbook

**Batch ID:** 947322.0  
**Analyst:** Alan Stanley  
**Method:** SW846 9010B Prep EPA 335.3 EPA 335.4  
**Lab SOP:** GL-GC-E-067 REV# 13  
**Instrument:** Sartorius Balance B-007

Verified by:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202029280	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.0125	mL
MS	1202029274	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1202029275	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1202029276	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029277	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029278	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029279	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202029279 MSD (245676001)	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
245676002	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
245676005	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
245681001	03-FEB-2010 15:24:00	Water	25	25	1	>12
245681002	03-FEB-2010 15:24:00	Water	25	25	1	>12
245690001	03-FEB-2010 15:24:00	Water	25	25	1	>12
245690002	03-FEB-2010 15:24:00	Water	25	25	1	>12
245777003	03-FEB-2010 15:24:00	Water	25	25	1	>12
245777006	03-FEB-2010 15:24:00	Water	25	25	1	>12
245791002	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245791004	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245807001	03-FEB-2010 15:24:00	Water	25	25	1	>12
245807002	03-FEB-2010 15:24:00	Water	25	25	1	>12
245818012	03-FEB-2010 15:24:00	Waste Water	25	25	1	>12
245841001	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12

### Comments:

Reagent/Solvent Lot ID	Description	Amount
091211-C	0.25N Sodium Hydroxide Solution	25 mL
1176724-C	0.8N H3NO3S	1.25 mL

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC



This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/5/2010 9:57:12	OM_2-5-2010_09-56-27
150 ppb		1	axc2	2/5/2010 9:58:04	OM_2-5-2010_09-56-27
100 ppb		1	axc2	2/5/2010 9:58:57	OM_2-5-2010_09-56-27
50 ppb		1	axc2	2/5/2010 9:59:49	OM_2-5-2010_09-56-27
10 ppb		1	axc2	2/5/2010 10:00:43	OM_2-5-2010_09-56-27
CRDL 5.0 ppb		1	axc2	2/5/2010 10:01:37	OM_2-5-2010_09-56-27
ICAL-00		1	axc2	2/5/2010 10:02:31	OM_2-5-2010_09-56-27
ICV		1	axc2	2/5/2010 10:04:21	OM_2-5-2010_09-56-27
ICB		1	axc2	2/5/2010 10:06:11	OM_2-5-2010_09-56-27
CRDL		1	axc2	2/5/2010 10:08:01	OM_2-5-2010_09-56-27
1202024505	945278	1	axc2	2/5/2010 10:09:51	OM_2-5-2010_09-56-27
1202024507	945278	250	axc2	2/5/2010 10:10:44	OM_2-5-2010_09-56-27
245307001	945278	1	axc2	2/5/2010 10:11:37	OM_2-5-2010_09-56-27
1202024506	945278	1	axc2	2/5/2010 10:12:30	OM_2-5-2010_09-56-27
245307002	945278	1	axc2	2/5/2010 10:13:23	OM_2-5-2010_09-56-27
245706001	945278	1	axc2	2/5/2010 10:14:16	OM_2-5-2010_09-56-27
1202030431*	947859	1	axc2	2/5/2010 10:15:09	OM_2-5-2010_09-56-27
1202030435	947859	1	axc2	2/5/2010 10:16:02	OM_2-5-2010_09-56-27
245791005	947859	1	axc2	2/5/2010 10:16:54	OM_2-5-2010_09-56-27
1202030432	947859	1	axc2	2/5/2010 10:17:46	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:18:39	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:20:29	OM_2-5-2010_09-56-27
245706001	945278	10	axc2	2/5/2010 10:22:18	OM_2-5-2010_09-56-27
1202030431	947859	1	axc2	2/5/2010 10:23:11	OM_2-5-2010_09-56-27
1202030433	947859	1	axc2	2/5/2010 10:24:03	OM_2-5-2010_09-56-27
1202030434	947859	1	axc2	2/5/2010 10:24:55	OM_2-5-2010_09-56-27
245791007	947859	1	axc2	2/5/2010 10:25:46	OM_2-5-2010_09-56-27
245818013	947859	1	axc2	2/5/2010 10:26:38	OM_2-5-2010_09-56-27
245893001	947859	1	axc2	2/5/2010 10:27:30	OM_2-5-2010_09-56-27
245900002	947859	1	axc2	2/5/2010 10:28:24	OM_2-5-2010_09-56-27
246007001	947859	1	axc2	2/5/2010 10:29:17	OM_2-5-2010_09-56-27
1202031533	947859	1	axc2	2/5/2010 10:30:10	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:31:03	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:32:54	OM_2-5-2010_09-56-27
1202031534	947859	1	axc2	2/5/2010 10:34:43	OM_2-5-2010_09-56-27
1202031535	947859	1	axc2	2/5/2010 10:35:37	OM_2-5-2010_09-56-27
1202029270	947324	1	axc2	2/5/2010 10:36:30	OM_2-5-2010_09-56-27
1202029280	947324	1	axc2	2/5/2010 10:37:23	OM_2-5-2010_09-56-27
245427008	947324	1	axc2	2/5/2010 10:38:15	OM_2-5-2010_09-56-27
245605002	947324	1	axc2	2/5/2010 10:39:08	OM_2-5-2010_09-56-27
1202029272	947324	1	axc2	2/5/2010 10:40:01	OM_2-5-2010_09-56-27
1202029275	947324	1	axc2	2/5/2010 10:40:53	OM_2-5-2010_09-56-27
1202029278	947324	1	axc2	2/5/2010 10:41:45	OM_2-5-2010_09-56-27
245619001	947324	1	axc2	2/5/2010 10:42:37	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:43:30	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:45:20	OM_2-5-2010_09-56-27
245427008	947324	10	axc2	2/5/2010 10:47:09	OM_2-5-2010_09-56-27
1202029271	947324	1	axc2	2/5/2010 10:48:00	OM_2-5-2010_09-56-27
1202029274	947324	1	axc2	2/5/2010 10:48:53	OM_2-5-2010_09-56-27
1202029277	947324	1	axc2	2/5/2010 10:49:47	OM_2-5-2010_09-56-27
245673004	947324	1	axc2	2/5/2010 10:50:40	OM_2-5-2010_09-56-27
245673005	947324	1	axc2	2/5/2010 10:51:34	OM_2-5-2010_09-56-27
245676001	947324	1	axc2	2/5/2010 10:52:28	OM_2-5-2010_09-56-27
1202029273	947324	1	axc2	2/5/2010 10:53:21	OM_2-5-2010_09-56-27
1202029276	947324	1	axc2	2/5/2010 10:54:14	OM_2-5-2010_09-56-27
1202029279	947324	1	axc2	2/5/2010 10:55:07	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:55:59	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:57:50	OM_2-5-2010_09-56-27

245676002	947324	1	axc2	2/5/2010	10:59:40	OM_2-5-2010_09-56-27
245676005	947324	1	axc2	2/5/2010	11:00:33	OM_2-5-2010_09-56-27
245681001	947324	1	axc2	2/5/2010	11:01:25	OM_2-5-2010_09-56-27
245681002	947324	1	axc2	2/5/2010	11:02:18	OM_2-5-2010_09-56-27
245690001*	947324	1	axc2	2/5/2010	11:03:11	OM_2-5-2010_09-56-27
245690002	947324	1	axc2	2/5/2010	11:04:02	OM_2-5-2010_09-56-27
245777003	947324	1	axc2	2/5/2010	11:04:55	OM_2-5-2010_09-56-27
245777006	947324	1	axc2	2/5/2010	11:05:46	OM_2-5-2010_09-56-27
245791002	947324	1	axc2	2/5/2010	11:06:41	OM_2-5-2010_09-56-27
245791004	947324	1	axc2	2/5/2010	11:07:35	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:08:28	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:10:18	OM_2-5-2010_09-56-27
245690001	947324	1	axc2	2/5/2010	11:12:06	OM_2-5-2010_09-56-27
245807001	947324	1	axc2	2/5/2010	11:12:59	OM_2-5-2010_09-56-27
245807002	947324	1	axc2	2/5/2010	11:13:53	OM_2-5-2010_09-56-27
245818012	947324	1	axc2	2/5/2010	11:14:46	OM_2-5-2010_09-56-27
245841001	947324	1	axc2	2/5/2010	11:15:40	OM_2-5-2010_09-56-27
1202025750	945817	1	axc2	2/5/2010	11:16:34	OM_2-5-2010_09-56-27
1202025757	945817	25	axc2	2/5/2010	11:17:26	OM_2-5-2010_09-56-27
245420011	945817	1	axc2	2/5/2010	11:18:19	OM_2-5-2010_09-56-27
245514013*	945817	1	axc2	2/5/2010	11:19:12	OM_2-5-2010_09-56-27
1202025751	945817	1	axc2	2/5/2010	11:20:04	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:20:57	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:22:48	OM_2-5-2010_09-56-27
245514013	945817	1	axc2	2/5/2010	11:24:36	OM_2-5-2010_09-56-27
1202025753	945817	1	axc2	2/5/2010	11:25:28	OM_2-5-2010_09-56-27
1202025755	945817	1	axc2	2/5/2010	11:26:22	OM_2-5-2010_09-56-27
245514014	945817	1	axc2	2/5/2010	11:27:13	OM_2-5-2010_09-56-27
245514015	945817	1	axc2	2/5/2010	11:28:05	OM_2-5-2010_09-56-27
245514016	945817	1	axc2	2/5/2010	11:28:59	OM_2-5-2010_09-56-27
245514017	945817	1	axc2	2/5/2010	11:29:53	OM_2-5-2010_09-56-27
245514018	945817	1	axc2	2/5/2010	11:30:47	OM_2-5-2010_09-56-27
245514019	945817	1	axc2	2/5/2010	11:31:41	OM_2-5-2010_09-56-27
245514020	945817	1	axc2	2/5/2010	11:32:35	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:33:28	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:35:18	OM_2-5-2010_09-56-27
245515001	945817	1	axc2	2/5/2010	11:37:07	OM_2-5-2010_09-56-27
245515002	945817	1	axc2	2/5/2010	11:38:01	OM_2-5-2010_09-56-27
245521001	945817	1	axc2	2/5/2010	11:38:54	OM_2-5-2010_09-56-27
245612001	945817	1	axc2	2/5/2010	11:39:47	OM_2-5-2010_09-56-27
1202025752*	945817	1	axc2	2/5/2010	11:40:40	OM_2-5-2010_09-56-27
1202025754	945817	1	axc2	2/5/2010	11:41:33	OM_2-5-2010_09-56-27
1202025756	945817	1	axc2	2/5/2010	11:42:25	OM_2-5-2010_09-56-27
245612002	945817	1	axc2	2/5/2010	11:43:18	OM_2-5-2010_09-56-27
245612003	945817	1	axc2	2/5/2010	11:44:10	OM_2-5-2010_09-56-27
245612004	945817	1	axc2	2/5/2010	11:45:03	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:45:55	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:47:46	OM_2-5-2010_09-56-27
1202025752	945817	1	axc2	2/5/2010	11:49:35	OM_2-5-2010_09-56-27
245612005	945817	1	axc2	2/5/2010	11:50:30	OM_2-5-2010_09-56-27
245612006	945817	1	axc2	2/5/2010	11:51:24	OM_2-5-2010_09-56-27
245740001	945817	1	axc2	2/5/2010	11:52:18	OM_2-5-2010_09-56-27
245741001	945817	1	axc2	2/5/2010	11:53:12	OM_2-5-2010_09-56-27
245420011	945817	10	axc2	2/5/2010	11:54:05	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:54:57	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:56:49	OM_2-5-2010_09-56-27

Author: axc2

Date : 2/5/2010

Original Run Filename: OM\_2-5-2010\_09-56-27.OMN created 2/5/2010 09:56:27  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_2-5-2010\_09-56-27.OMN last modified 2/5/2010 11:57:54  
 Current Run Author's Signature: [axc2]  
 Description: GL-GC-E-102 EPA 420.4, 9066  
 LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE		Detection Time	ADF	MDF	Description
			Conc. (ug/L)	Area (Vs)				
WCN100205-01	1	S1	200	9.56	2/5/2010@09:57:12			200 ppb
WCN100205-02	1	S2	150	7.18	2/5/2010@09:58:04			150 ppb
WCN100205-03	1	S3	100	4.47	2/5/2010@09:58:57			100 ppb
WCN100205-04	1	S4	50.0	2.22	2/5/2010@09:59:49			50 ppb
WCN100205-05	1	S5	10.0	0.464	2/5/2010@10:00:43			10 ppb
WCN100205-06	1	S6	5.00	0.275	2/5/2010@10:01:37			CRDL 5.0 ppb
WCN100205-08	1	S7	0.00	-0.0584	2/5/2010@10:02:31			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99944 > 0.99500					
Message			Pass					
Action			Continue					
WCN100205-07	1	S8	137	6.46	2/5/2010@10:04:21			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-8.9 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-8.9 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100205-08	1	S7	0.293	-0.0613	2/5/2010@10:06:11			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.293 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.293 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100205-06	1	S6	7.24	0.271	2/5/2010@10:08:01			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			7.24 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			7.24 > 2.50					
Message			Pass					
Action			None					
1202024505 945278 MB	1	1	2.51	0.0446	2/5/2010@10:09:51			
1202024507 LCS	1	2	172	8.13	2/5/2010@10:10:44		250.00	
245307001	1	3	1.97	0.0188	2/5/2010@10:11:37			
1202024506 DUP	1	4	1.58	3.83e-4	2/5/2010@10:12:30			
245307002	1	5	0.859	-0.0342	2/5/2010@10:13:23			
245706001	1	6	418	19.9	2/5/2010@10:14:16			
1202030431 947859 MB	1	7	42.8	1.97	2/5/2010@10:15:09			
1202030435 LCS	1	8	46.0	2.12	2/5/2010@10:16:02			
245791005	1	9	1.63	0.00275	2/5/2010@10:16:54			
1202030432 DUP	1	10	1.58	2.94e-4	2/5/2010@10:17:46			
WCN100205-03	1	S3	96.0	4.52	2/5/2010@10:18:39			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-4.0 < 10.0					
Message			CCV Passed					

		Action	Continue						
DQM Test: < - Percent Relative Difference									
		Result:	-4.0 < 10.0						
		Message	CCV Passed						
		Action	Continue						
WCN100205-08	1	S7	0.291	-0.0614	2/5/2010@10:20:29				CCB
		Known Conc:	0.00						
DQM Test: > + Concentration Limit									
		Result:	0.291 < 5.00						
		Message	CCB Passed						
		Action	Continue						
DQM Test: < - Concentration Limit									
		Result:	0.291 > -5.00						
		Message	CCB Passed						
		Action	Continue						
245706001 945278	1	6	39.5	1.81	2/5/2010@10:22:18			10.00	
1202030431 947859 MB	1	7	2.52	0.0452	2/5/2010@10:23:11				
1202030433 MS	1	11	99.9	4.70	2/5/2010@10:24:03				
1202030434 MSD	1	12	78.6	3.68	2/5/2010@10:24:55				
245791007	1	13	1.68	0.00490	2/5/2010@10:25:46				
245818013	1	14	3.49	0.0915	2/5/2010@10:26:38				
245893001	1	15	5.80	0.202	2/5/2010@10:27:30				
245900002	1	16	3.33	0.0842	2/5/2010@10:28:24				
246007001	1	17	1.74	0.00781	2/5/2010@10:29:17				
1202031533 DUP	1	18	1.78	0.00994	2/5/2010@10:30:10				
WCN100205-03	1	S3	96.7	4.55	2/5/2010@10:31:03				CCV
		Known Conc:	100						
DQM Test: > + Percent Relative Difference									
		Result:	-3.3 < 10.0						
		Message	CCV Passed						
		Action	Continue						
DQM Test: < - Percent Relative Difference									
		Result:	-3.3 < 10.0						
		Message	CCV Passed						
		Action	Continue						
WCN100205-08	1	S7	0.125	-0.0693	2/5/2010@10:32:54				CCB
		Known Conc:	0.00						
DQM Test: > + Concentration Limit									
		Result:	0.125 < 5.00						
		Message	CCB Passed						
		Action	Continue						
DQM Test: < - Concentration Limit									
		Result:	0.125 > -5.00						
		Message	CCB Passed						
		Action	Continue						
1202031534 MS	1	19	86.8	4.07	2/5/2010@10:34:43				
1202031535 MSD	1	20	97.2	4.57	2/5/2010@10:35:37				
1202029270 947324 MB	1	21	2.49	0.0436	2/5/2010@10:36:30				
1202029280 LCS	1	22	46.7	2.16	2/5/2010@10:37:23				
245427008	1	23	339	16.1	2/5/2010@10:38:15				
245605002	1	24	3.11	0.0735	2/5/2010@10:39:08				
1202029272 DUP	1	25	2.62	0.0502	2/5/2010@10:40:01				
1202029275 MS	1	26	102	4.78	2/5/2010@10:40:53				
1202029278 947324 MSD	1	27	101	4.75	2/5/2010@10:41:45				
245619001	1	28	2.69	0.0533	2/5/2010@10:42:37				
WCN100205-03	1	S3	96.8	4.55	2/5/2010@10:43:30				CCV
		Known Conc:	100						
DQM Test: > + Percent Relative Difference									
		Result:	-3.2 < 10.0						
		Message	CCV Passed						
		Action	Continue						
DQM Test: < - Percent Relative Difference									
		Result:	-3.2 < 10.0						
		Message	CCV Passed						
		Action	Continue						
WCN100205-08	1	S7	0.121	-0.0695	2/5/2010@10:45:20				CCB
		Known Conc:	0.00						
DQM Test: > + Concentration Limit									

		Result:	0.121 < 5.00				
		Message	CCB Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	0.121 > -5.00				
		Message	CCB Passed				
		Action	Continue				
245427008	1	23	28.0	1.26	2/5/2010@10:47:09	10.00	
1202029271	DUP	1	29	3.37	0.0860	2/5/2010@10:48:00	
1202029274	MS	1	30	102	4.80	2/5/2010@10:48:53	
1202029277	MSD	1	31	91.7	4.31	2/5/2010@10:49:47	
245673004		1	32	5.30	0.178	2/5/2010@10:50:40	
245673005		1	33	4.74	0.152	2/5/2010@10:51:34	
245676001		1	34	3.12	0.0738	2/5/2010@10:52:28	
1202029273	DUP	1	35	2.85	0.0609	2/5/2010@10:53:21	
1202029276	MS	1	36	101	4.76	2/5/2010@10:54:14	
1202029279	MSD	1	37	99.3	4.67	2/5/2010@10:55:07	
WCN100205-03		1	S3	96.2	4.52	2/5/2010@10:55:59	CCV
		Known Conc:	100				
DQM Test: > + Percent Relative Difference							
		Result:	-3.8 < 10.0				
		Message	CCV Passed				
		Action	Continue				
DQM Test: < - Percent Relative Difference							
		Result:	-3.8 < 10.0				
		Message	CCV Passed				
		Action	Continue				
WCN100205-08	1	S7	1.57	-1.31e-4	2/5/2010@10:57:50		CCB
		Known Conc:	0.00				
DQM Test: > + Concentration Limit							
		Result:	1.57 < 5.00				
		Message	CCB Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	1.57 > -5.00				
		Message	CCB Passed				
		Action	Continue				
245676002	1	38	2.93	0.0649	2/5/2010@10:59:40		
245676005	1	39	3.03	0.0698	2/5/2010@11:00:33		
245681001	1	40	2.89	0.0628	2/5/2010@11:01:25		
245681002	1	41	2.79	0.0582	2/5/2010@11:02:18		
245690001	1	42	5.08	0.167	2/5/2010@11:03:11		
245690002	1	43	2.65	0.0517	2/5/2010@11:04:02		
245777003	1	44	3.52	0.0929	2/5/2010@11:04:55		
245777006	1	45	4.92	0.160	2/5/2010@11:05:46		
245791002	1	46	2.86	0.0613	2/5/2010@11:06:41		
245791004	1	47	2.60	0.0491	2/5/2010@11:07:35		
WCN100205-03	1	S3	95.3	4.48	2/5/2010@11:08:28		CCV
		Known Conc:	100				
DQM Test: > + Percent Relative Difference							
		Result:	-4.7 < 10.0				
		Message	CCV Passed				
		Action	Continue				
DQM Test: < - Percent Relative Difference							
		Result:	-4.7 < 10.0				
		Message	CCV Passed				
		Action	Continue				
WCN100205-08	1	S7	1.88	0.0145	2/5/2010@11:10:18		CCB
		Known Conc:	0.00				
DQM Test: > + Concentration Limit							
		Result:	1.88 < 5.00				
		Message	CCB Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	1.88 > -5.00				
		Message	CCB Passed				
		Action	Continue				
245690001	1	42	2.79	0.0582	2/5/2010@11:12:06		

245807001	1	48	2.82	0.0594	2/5/2010@11:12:59		
245807002	1	49	2.67	0.0526	2/5/2010@11:13:53		
245818012	1	50	7.63	0.290	2/5/2010@11:14:46		
245841001	1	51	3.12	0.0740	2/5/2010@11:15:40		
1202025750 945817 MB	1	52	3.14	0.0749	2/5/2010@11:16:34		
1202025757 LCS	1	53	26.7	1.20	2/5/2010@11:17:26	25.00	
245420011	1	54	624	29.7	2/5/2010@11:18:19		
245514013	1	55	14.7	0.628	2/5/2010@11:19:12		
1202025751 DUP	1	56	4.56	0.143	2/5/2010@11:20:04		
WCN100205-03	1	S3	95.7	4.50	2/5/2010@11:20:57		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			-4.3 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			-4.3 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100205-08	1	S7	1.88	0.0145	2/5/2010@11:22:48		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			1.88 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			1.88 > -5.00				
Message			CCB Passed				
Action			Continue				
245514013	1	55	4.67	0.148	2/5/2010@11:24:36		
1202025753 MS	1	57	85.5	4.01	2/5/2010@11:25:28		
1202025755 MSD	1	58	87.1	4.09	2/5/2010@11:26:22		
245514014	1	59	5.67	0.196	2/5/2010@11:27:13		
245514015	1	60	4.79	0.154	2/5/2010@11:28:05		
245514016	1	61	34.5	1.58	2/5/2010@11:28:59		
245514017	1	62	91.0	4.28	2/5/2010@11:29:53		
245514018	1	63	8.35	0.324	2/5/2010@11:30:47		
245514019	1	64	27.5	1.24	2/5/2010@11:31:41		
245514020	1	65	157	7.41	2/5/2010@11:32:35		
WCN100205-03	1	S3	96.1	4.52	2/5/2010@11:33:28		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			-3.9 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			-3.9 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100205-08	1	S7	1.93	0.0169	2/5/2010@11:35:18		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			1.93 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			1.93 > -5.00				
Message			CCB Passed				
Action			Continue				
245515001	1	66	29.3	1.33	2/5/2010@11:37:07		
245515002	1	67	20.7	0.917	2/5/2010@11:38:01		
245521001	1	68	3.85	0.109	2/5/2010@11:38:54		
245612001	1	69	3.79	0.106	2/5/2010@11:39:47		
1202025752 DUP	1	70	8.08	0.311	2/5/2010@11:40:40		
1202025754 MS	1	71	96.6	4.54	2/5/2010@11:41:33		
1202025756 MSD	1	72	96.1	4.52	2/5/2010@11:42:25		
245612002	1	73	3.95	0.113	2/5/2010@11:43:18		
245612003	1	74	3.75	0.104	2/5/2010@11:44:10		

245612004	1	75	3.52	0.0928	2/5/2010@11:45:03		
WCN100205-03	1	S3	95.8	4.51	2/5/2010@11:45:55		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			-4.2 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			-4.2 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100205-08	1	S7	1.58	3.12e-4	2/5/2010@11:47:46		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			1.58 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			1.58 > -5.00				
Message			CCB Passed				
Action			Continue				
1202025752  DUP	1	70	4.24	0.127	2/5/2010@11:49:35		
245612005	1	76	4.19	0.125	2/5/2010@11:50:30		
245612006	1	77	3.44	0.0890	2/5/2010@11:51:24		
245740001	1	78	3.91	0.112	2/5/2010@11:52:18		
245741001	1	79	4.26	0.128	2/5/2010@11:53:12		
245420011	1	54	59.7	2.78	2/5/2010@11:54:05	10.00	
WCN100205-03	1	S3	96.1	4.52	2/5/2010@11:54:57		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			-3.9 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			-3.9 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100205-08	1	S7	1.58	3.24e-4	2/5/2010@11:56:49		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			1.58 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			1.58 > -5.00				
Message			CCB Passed				
Action			Continue				

Analyte Properties Table for OM\_2-5-2010\_09-56-27.OMN

Property	Channel 1 TCYANIDE
Concentration Units	ug/L
Calibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

### Channel 1: Current View

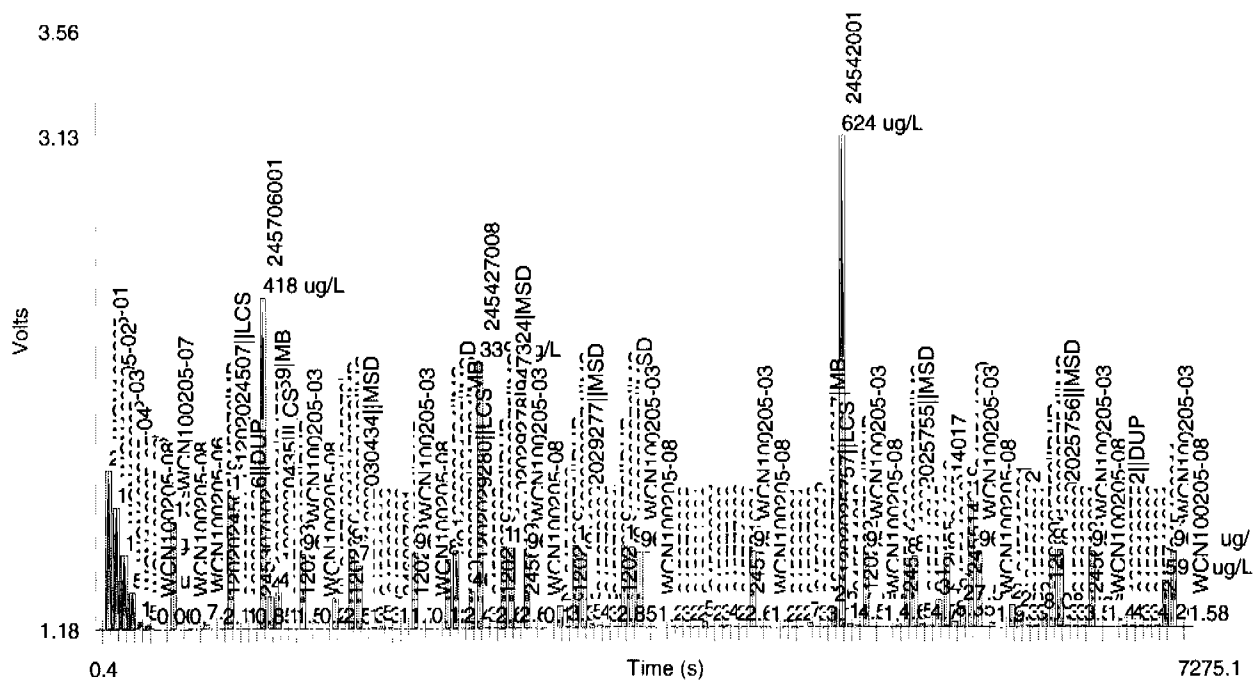


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.56	0.625	-0.8	2/5/2010	09:58:15
2	150	1	7.18	0.475	-1.2	2/5/2010	09:59:07
3	100	1	4.47	0.290	5.1	2/5/2010	09:59:59
4	50.0	1	2.22	0.141	4.3	2/5/2010	10:00:52
5	10.0	1	0.464	0.0293	-14.2	2/5/2010	10:01:46
6	5.00	1	0.275	0.0163	-64.2	2/5/2010	10:02:39
7	0.00	1	-0.0584	-0.00104		2/5/2010	10:03:34

Figure 1: TCYANIDE

